

HIGHER EDUCATION DYNAMICS

# Cost-sharing and Accessibility in Higher Education: A Fairer Deal?

Pedro N. Teixeira, D. Bruce Johnstone, Maria J. Rosa  
and J.J. Vossensteijn (Eds.)

*Cipes*

Centro de Investigação de  
Políticas do Ensino Superior

Hodda

---

 Springer

COST-SHARING AND ACCESSIBILITY  
IN HIGHER EDUCATION: A FAIRER DEAL?

# HIGHER EDUCATION DYNAMICS

---

## VOLUME 14

---

### ***Series Editor***

Peter Maassen, *University of Oslo, Norway, and University of Twente, Enschede, The Netherlands*

### ***Editorial Board***

Alberto Amaral, *Universidade do Porto, Portugal*

Akira Arimoto, *Hiroshima University, Japan*

Nico Cloete, *CHET, Pretoria, South Africa*

David Dill, *University of North Carolina at Chapel Hill, USA*

Jürgen Enders, *University of Twente, Enschede, The Netherlands*

Patricia Gumpert, *Stanford University, USA*

Mary Henkel, *Brunel University, Uxbridge, United Kingdom*

Glenn Jones, *University of Toronto, Canada*

## **SCOPE OF THE SERIES**

*Higher Education Dynamics* is a bookseries intending to study adaptation processes and their outcomes in higher education at all relevant levels. In addition it wants to examine the way interactions between these levels affect adaptation processes. It aims at applying general social science concepts and theories as well as testing theories in the field of higher education research. It wants to do so in a manner that is of relevance to all those professionally involved in higher education, be it as ministers, policy-makers, politicians, institutional leaders or administrators, higher education researchers, members of the academic staff of universities and colleges, or students. It will include both mature and developing systems of higher education, covering public as well as private institutions.

*The titles published in this series are listed at the end of this volume.*

# COST-SHARING AND ACCESSIBILITY IN HIGHER EDUCATION: A FAIRER DEAL?

*Edited by*

PEDRO N. TEIXEIRA

*CIPES and University of Porto, Portugal*

D. BRUCE JOHNSTONE

*State University of New York at Buffalo, U.S.A.*

MARIA J. ROSA

*CIPES and University of Aveiro, Portugal*

and

HANS VOSSENSTEYN

*CHEPS, University of Twente, The Netherlands*

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN 978-1-4020-6915-4 (PB)

ISBN 978-1-4020-4659-9 (HB)

ISBN 978-1-4020-4660-5 (e-book)

---

Published by Springer,  
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

*www.springer.com*

*Printed on acid-free paper*

All Rights Reserved

© 2008 Springer Science+Business Media B.V.

No part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission from the Publisher, with the exception of any material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work.

## TABLE OF CONTENTS

List of Contributors	vii
Preface	xiii
Introduction D. BRUCE JOHNSTONE, PEDRO TEIXEIRA, MARIA JOÃO ROSA AND HANS VOSENSTEYN	1
Strengthening Consumer Choice in Higher Education BEN JONGBLOED	19
Cost-sharing and the Cost-effectiveness of Grants and Loan Subsidies to Higher Education D. BRUCE JOHNSTONE	51
Income Related Student Loans: Concepts, International Reforms and Administrative Challenges BRUCE CHAPMAN	79
Access to Higher Education in Britain: The Impact of Tuition Fees and Financial Assistance CLAIRE CALLENDER	105
The Changing Nature of Public Support for Higher Education in the United States DONALD E. HELLER	133
The Canadian Experiment in Cost-sharing and its Effects on Access to Higher Education, 1990–2002 ROSS FINNIE AND ALEX USHER	159
Student and University Funding in Devolved Governments in the United Kingdom MAUREEN WOODHALL AND KEN RICHARDS	189
Student Financing in the Netherlands: A Behavioural Economic Perspective HANS VOSENSTEYN AND UULKJE DE JONG	213

A Broader Church? Expansion, Access and Cost-sharing in Portuguese Higher Education PEDRO TEIXEIRA, MARIA JOÃO ROSA AND ALBERTO AMARAL	241
The German Tuition Fee Debate: Goals, Models and Political Implications of Cost-sharing FRANK ZIEGELE	265
Accessibility and Equity in a State-funded System of Higher Education: The French Case THIERRY CHEVAILLIER AND JEAN-JACQUES PAUL	295
Access to Higher Education Within a Welfare State System: Developments and Dilemmas PER OLAF AAMODT	317
Conclusion PEDRO TEIXEIRA, D. BRUCE JOHNSTONE, HANS VOSSENSTEYN AND MARIA JOÃO ROSA	343

## LIST OF CONTRIBUTORS

PER OLAF AAMODT is a senior researcher at NIFU STEP (Oslo, Norway). His research interests include access to higher education, study conditions, study persistence and learning outcome. Being a member of the NIFU STEP staff since 1984, he served as a director of research from 1988 to 1999. He is presently coordinating a major research project on the Norwegian quality reform in higher education, and has been involved in several international projects, including OECD reviews in Portugal and Finland.

ALBERTO AMARAL is professor at the University of Porto and director of CIPES. He is chair of the Board of CHER, vice-chair of EUA's steering committee on institutional evaluation, life member of IAUP, and a member of EAIR and IMHE. Recent publications include articles in *Quality Assurance in Education*, *Higher Education Quarterly*, *Higher Education Policy*, *Higher Education in Europe* and *European Journal of Education*. He is editor and co-editor of several books, including *Governing Higher Education: National Perspectives on Institutional Governance* (2002), *The Higher Education Managerial Revolution?* (2003) and *Markets in Higher Education: Rhetoric or Reality?* (2004) in this series.

CLAIRE CALLENDER is professor of social policy at London South Bank University and has been conducting applied social research for over 25 years. She has undertaken numerous studies on student finances in both higher and further education, especially about their income, expenditure and debt, and has written widely on the subject. Through her research, she has contributed to all the recent major inquiries in the UK into student funding including the Dearing, Cubie and Rees Committees. Similarly, her research informed the 2004 Higher Education Act.

BRUCE CHAPMAN is a professor and head of economics in the Research School of Social Sciences at the Australian National University. He has a PhD from Yale University and is a labour and education economist having published over a hundred and fifty articles in these areas. He has had extensive direct policy experience, including the motivation and design of Australia's income contingent charge for higher education, and as a senior economic adviser to the Australian Prime Minister from 1994–96. He has been a consultant to the OECD, the World Bank and the governments of around 10 countries (mostly in the area of student loans and university financing). He is currently writing a book on the application of income related loans to a host of disparate public policies.

THIERRY CHEVAILLIER is senior lecturer in economics at the University of Bourgogne (Dijon, France) and a member of IREDU (Research Institute in the Sociology and Economics of Education). His research interests are higher education finance and resource allocation in higher education. He is a member of the Consortium of Higher Education Researchers (CHER).

UULKJE DE JONG received her PhD in the social sciences on the subject of educational careers in secondary and higher education. She is a senior researcher and account manager at the SCO-Kohnstamm Institute of the University of Amsterdam. She has participated in many studies on educational choice processes and on the impact of schools and institutions on individual educational opportunities. Currently she is involved in research projects concerning student choice and access, and in satisfaction studies among students, graduates and staff for a variety of contractors. She has a long record in research methodology with an emphasis on research design and survey construction.

ROSS FINNIE studied at Queen's University, the London School of Economics and the University of Wisconsin–Madison. He has been a research fellow and adjunct professor in the School of Policy Studies at Queen's University since 1997 and a visiting fellow at Statistics Canada since 1993. He has published widely in the area of postsecondary education, and his current research includes work on the relationship between family background and access to postsecondary education, the roles of student loans and grants on improving access, and a proposal (co-authored with Alex Usher and Hans Vossensteyn) for a 'new architecture' for the student financial aid system in Canada.

DONALD E. HELLER is associate professor and senior research associate at the Center for the Study of Higher Education at Penn State. His research centres on higher education economics, public policy and finance, with a primary focus on issues of access, choice and persistence in postsecondary education. He earned his EdM and EdD degrees from the Harvard Graduate School of Education and a BA in economics and political science from Tufts University. He received the 2002 Promising Scholar/Early Career Achievement Award from the Association for the Study of Higher Education, and the 2001 Robert P. Huff Golden Quill Award from the National Association of Student Financial Aid Administrators.

D. BRUCE JOHNSTONE is university professor of higher and comparative education at the State University of New York at Buffalo, where he is director of the Center for Comparative and Global Studies in Education and the International Comparative Higher Education Finance and Accessibility Project. His teaching and research interests combine economics, finance and governance of colleges and universities in both domestic and international contexts. He has served as vice-president for administration at the University of Pennsylvania, president of the State University College at Buffalo and chancellor of the State University of New York, the latter post from 1988 to 1994. He received his BA (1963) and MAT (1964) degrees from Harvard University and his PhD (1969) from the University of Minnesota.

BEN JONGBLOED is a senior researcher at the Center for Higher Education Policy Studies (CHEPS), University of Twente. Since joining CHEPS in 1993 his research has concentrated on the theme of higher education economics. He has written

extensively on topics such as funding methodologies, student financial support, marketisation, financial management and per student costs. As a staff member of CHEPS he has been involved in commissioned research projects, training seminars and consultancies in the area of higher education policy and institutional management. He is a co-editor of *Markets in Higher Education: Rhetoric or Reality?* (2004) in this series.

JEAN-JACQUES PAUL is a professor of economics of education at the University of Bourgogne and director of IREDU (Research Institute in the Sociology and Economics of Education). His present research work is devoted to the economic evaluation of higher education institutions and systems.

KEN RICHARDS was educated at Gowerton Grammar School and University College Cardiff, where he took a first class honours degree in economics. After graduation he was appointed as a research assistant to Professor Brinley Thomas at Cardiff and the following year joined the economics department of the Massachusetts Institute of Technology where he held a Thomas and Elizabeth Williams scholarship. He has lectured in economics at universities in Wales, Malta and Canada especially in taxation and finance. He is the author of *Managing Your Money* (Teach Yourself Books 1977) and of many articles on finance and other topics, particularly transport and international economics. Following his work on the previous Independent Investigation Group on Student Hardship and Funding in Wales, he published a further study entitled "Reforming Higher Education Student Finance in the UK" (*Welsh Journal of Education* 11.1 (2002): 48–63). Part of this work involved the building of a loan repayment model, which was subsequently used extensively in the White Paper on Higher Education. He is a member of the second Rees Review examining *inter alia* the issue of top-up fees in Wales. He has been active in consultancy on economic and financial matters and continues to do some work in this area. He is a part-time lecturer and tutor at the School of Management and Business at the University of Wales, Aberystwyth. He works in an honorary capacity as a member of the executive committee of the James Pantyfedwen Charitable Foundation, as treasurer of the University of Wales Guild of Graduates. He is an honorary fellow in the School of Management and Business at the University of Wales, Aberystwyth.

MARIA JOÃO ROSA is assistant teacher at the University of Aveiro and a researcher at CIPES. She was awarded a PhD by the University of Aveiro (Portugal) in December 2003, with a thesis entitled *Defining Strategic and Excellence Bases for the Development of Portuguese Higher Education*. Her main research topics are quality management and quality assessment in higher education institutions and the internationalisation of the Portuguese higher education system. Recent publications include articles in journals such as *Quality Progress*, *Total Quality Management* and *Higher Education Quarterly*.

PEDRO TEIXEIRA is assistant professor at the Department of Economics (University of Porto) and researcher at CIPES (Portuguese National Research Centre

on Higher Education Policy) and CEMPRE (Research Centre on Macroeconomics and Forecasting, University of Porto). He is also affiliated with IZA (the International Network of Labour Economists) and with PROPHE (Program of Research on Private Higher Education). He has been collaborating with CIPES since its foundation in 1998 on various research projects and has published on various aspects of higher education policy, notably on markets and privatisation in higher education (with special attention to the Portuguese case) and on the history of economic thought (namely on the history of human capital theory and the economics of education). He is co-editor of *Markets in Higher Education: Rhetoric or Reality?* (2004) in this series.

ALEX USHER is the vice-president (research) and director (Canada) of the Educational Policy Institute (EPI), a non-partisan research organisation dedicated to facilitating the expansion of educational opportunity for all students, focusing on students with the least support and the most need. He has been working on issues related to access to education for over ten years. He was the first national director of the Canadian Alliance of Student Associations (1995–96), served as a researcher and lobbyist for the Association of Universities and Colleges of Canada (1996–98), and was co-manager of the Canada Millennium Scholarship Foundation Bursary Program, Canada's largest grant program, in 1999 and 2000. In 2001, he became the director of research and program development for the Canada Millennium Scholarship Foundation, where he was in charge of Canada's largest ever research project on access to postsecondary education. He is the author or co-author of two dozen monographs and articles on access to education and education quality, including two editions of *The Price of Knowledge*, which is the standard reference source for information on access and student finance in Canada, and *The Global Higher Education Rankings*, which compares affordability and accessibility in 15 countries.

HANS VOSENSTEYN completed a masters degree in public administration and public policy at the University of Twente in 1991. That same year he started as a research associate at CHEPS. Since then he has participated in projects covering a wide array of subjects including internationalisation, higher education indicators and quantitative and qualitative international comparative analyses. His major research interest is in funding matters, including national allocation models, tuition fee policies, student financial support and the affordability of higher education. He completed his PhD on students' price-responsiveness in 2005. As a staff member and research coordinator of CHEPS he has been involved in commissioned research projects, training seminars and consultancies in the area of higher education policy and student financial support systems. He has given a number of presentations to international conference audiences on the topic of access to higher education.

MAUREEN WOODHALL is emeritus reader in education finance, Institute of Education, University of London, visiting fellow, School of Education, University of Sussex and honorary research fellow, School of Education and Lifelong Learning, University of Wales, Aberystwyth. She has published widely on the economics of

education, particularly on higher education finance, including many books and articles on student support, particularly student loans. From July 2004 to May 2005 she was a member of the Independent Study into the Devolution of the Student Support System and Tuition Fee Regime in Wales (the Rees Review); the report of the Rees Review was published in May/June, 2005. She has been a consultant for the International Institute for Educational Planning (IIEP), OECD, UNESCO and the World Bank.

FRANK ZIEGELE is professor of higher education management at the University of Applied Science, Osnabrück and project manager at the Center for Higher Education Development, Gütersloh (Germany). He was trained as an economist and his research and publications focus on higher education finance, budgeting, strategic management, contract management and academic controlling. Since 1997 he has contributed 55 publications to the field of higher education policy and management and realised more than 40 projects in higher education reform and research together with numerous universities, ministries and other partners. In Osnabrück he is responsible for the first German MBA programme in higher education management. He is a member of the editorial board of the journal *Wissenschaftsmanagement*.

## PREFACE

This is the fourth of the so-called Douro books, an annual series of research-based books on higher education. The series is the result of an initiative by *Hedda*, a European consortium of nine centres and institutes devoted to research on higher education, and CIPES, its Portuguese associated centre. At its foundation in January 2001 it was agreed that *Hedda* would promote the further development of the field of higher education studies through annually organising a research-based seminar. At the proposal of CIPES it was decided to organise the seminar each year at the same location in a bench in the river Douro in Portugal and name it after this location: the Douro seminar. At each seminar prominent researchers present a research-based paper and debate the state of the art of research done on a specific higher education policy issue. The papers and the results of the debates form the basis for the annual thematic book published by Springer in the book series called Higher Education Dynamics (HEDY). Paying tribute to the regularity of the seminars it was decided that the volumes originating from the initiative will be collected in a 'series in the series' called the Douro Series.

The first seminar (2001) was dedicated to *Governance Structures in Higher Education Institutions*. The second seminar (2002) discussed the *Emergence of Managerialism in Higher Education Institutions*, and the third seminar (2003) focused on *Markets in Higher Education*. The 2004 seminar was dedicated to a debate on *Cost-sharing and Accessibility in Higher Education*, while the fifth seminar (October 2005) is focused on *Dynamics and Effects of Quality Assurance in Higher Education*.

The present volume contains the edited versions of the papers presented at the fourth Douro seminar. It discusses the notion of cost-sharing – or the shift of some of the higher education costs per student from governments and taxpayers to parents and students – and the way in which it affects accessibility to higher education. The theme of the seminar is of great relevance politically, socially as well as economically. Politically, since guaranteeing access to higher education to all qualified is one of the major tasks of government; socially, since participation in higher education is still far from being equally distributed over the various socio-economic groups in society; and economically, since a better understanding of the relationship between costs of and access to higher education will lead to a more efficient and effective use of available funds. A great deal of work has been done in this area and this book brings together some of the leading scholars on cost-sharing issues from altogether nine countries. As such, this book offers an excellent overview of the state of the art of our knowledge with respect to the effects of cost-sharing on access to higher education.

Massification of higher education has led to increasing costs of the system, a burden that according to governments can no longer be carried only by the public purse. This has resulted in a decrease of the state contribution per student and a rise in public awareness for the need to consider the introduction of student contributions to the costs of higher education, or the increase of the level of student contributions. This comes on top of the need to improve the efficiency of higher education institutions so as to offset the effects of reduced funding over the quality of educational provision as discussed in the previous Douro book (*Markets in Higher Education: Rhetoric or Reality?* 2004).

In the concluding chapter the common themes emerging from the various chapters are discussed, and an agenda for future research is discussed. We hope that this book will become an indispensable reader for all those interested in higher education policies, especially those more directly concerned in the relationship between costs of and access to higher education.

We are grateful to all who have made the fourth Douro seminar and book possible, namely Amélia Veiga at CIPES and Therese Marie Uppstrøm at *Hedda*, the perfect organisers of the Douro seminars. We are also grateful to Di Davies for her editorial work. We have appreciated the diligence of all our colleagues who have contributed to this volume with their papers, comments and editorial suggestions, and we certainly noticed their forbearance in replying to our tedious editorial demands.

We want also to acknowledge the financial support from *Fundação para a Ciência e Tecnologia*, of the Portuguese Ministry for Science and Higher Education, making possible the organisation of the fourth Douro seminar. And last but not least, we register once more the superb environment provided by the management of Vintage House Hotel on the banks of the Douro River.

Alberto Amaral  
Matosinhos

and

Peter Maassen  
Oslo

August 2005

D. BRUCE JOHNSTONE, PEDRO TEIXEIRA,  
MARIA JOÃO ROSA AND HANS VOSSENSTEYN

## INTRODUCTION

Higher education throughout the world has become increasingly important in the decades closing the 20<sup>th</sup> and beginning the 21<sup>st</sup> centuries. This is nowhere more true than in the so-called *mature economies* of the Organization for Economic Co-operation and Development (OECD) in which higher education has been a vital component of democratic civil societies, an engine of economic growth and a principal vehicle for the advancement of economic mobility and social justice.

However, in spite of this universally recognised importance and in spite of underlying wealth, political stability, taxing capacity and generally stable population growth in these fortunate countries, their universities and other institutions of higher education still seem – as in other less economically fortunate parts of the world – beset with some variation or variations on the theme of financial austerity. This austerity is manifested in such problems as overcrowding, declining faculty–student ratios, deteriorating physical plants, and in some countries high tuition fees and/or student debts, restive student bodies and increasingly demoralised faculty and staff.

Faced with this context of financial stringency, governments and higher education institutions have moved steadily to consider other sources of revenue. Paramount among these *other sources* has been the expectation of greater financial contributions by students and their families through the introduction of some form or forms of cost-sharing, including the imposition of, or sharp increases in, tuition fees, the growing importance of student loans and the encouragement of more fee-supported private higher education. This constitutes a major development in higher education policy and raises important challenges to researchers in the field, particularly on the impact of greater cost-sharing on access to higher education.

This book addresses some of the main issues surrounding cost-sharing. In this introductory chapter, we start by reviewing the history of economic theories (frequently contested) that underlie the development and justification of cost-sharing policies. Then we analyse the economic–political–demographic context that has led policy makers in most countries to introduce some form or forms of cost-sharing – however tentatively – despite the inevitable unpopularity associated with them. Finally, we review some of the continuing debates, both economic and political, regarding cost-sharing and the way these issues will be covered in subsequent chapters.

## 1. PUBLIC INTERESTS AND PRIVATE BENEFITS

The idea that education can provide benefits, including economic ones, is an old one. At least by the late eighteenth century, some people had started thinking about skilled individuals as a kind of expensive instrument or machine: a form of capital whose long-term benefit would compensate the efforts and expenditures of years of early personal and intellectual development. However, until the 1950s most economists had failed to develop further these metaphors about the economic potential of education and training (Blaug 1976). Nowadays we are so used to taking for granted the economic contribution of education to growth and development that it is difficult to see it otherwise or to understand that it was not so evident just a few decades ago. Thus, until the late fifties the contribution of education was not widely discussed and was certainly not at the core of the debates on the priorities for economic growth and development.

The earliest efforts to bring attention, in the context of growth and development economics, to the role that education and other activities and institutions could have in stimulating people's productivity belong to Theodore W. Schultz (Teixeira 2001). Since his earliest works, Schultz emphasised the role of knowledge embodied in technical advances and especially in people's capacities as a powerful instrument for understanding and promoting the development and modernisation first of agriculture and then of low income economies. Schultz would emphasise a broad concept of human capital – including the role of nutrition, health, education and migration – which was linked to his focus on modernising economies, and also to his preoccupation with the maldistribution of resources (especially labour). He regarded human capital as something that made people more productive, but especially as an activity that made people aware of new and better opportunities and capable of seizing them.<sup>1</sup>

These ideas developed into a full-fledged human capital research programme that became highly influential for researchers and policy makers focusing on education, economic growth and development, and labour. In particular, they contributed enormously to changing the approach of governments to educational expenditures because of their potential economic impact. From the early sixties onwards, references to education as a kind of investment and to its role in promoting the material advance of society, and not only its intellectual and cultural benefits, became a staple in any policy document dealing with education. The increasing attention to human capital in the context of economic development benefited from the changes at the political level, particularly visible on the international scene. The sixties were a period of change, and despite initial resistances, most international institutions and development agencies ended up embracing education as a major area of funding in development projects (Papadopoulos 1994).<sup>2</sup>

The elaboration of human capital ideas regarding the public and private benefits of higher education came at a time when many Western countries were significantly expanding their systems, and the policies and issues associated with each became unavoidably linked. The need for a highly qualified labour force was justified on economic grounds and as a major reason for governments to step in and play a major role in the promotion of mass access to higher education. This was not only

supported on the grounds of social externalities, but also on the basis of economic arguments citing market failures and the shortcomings of the financial markets in relation to investments in training.

Nevertheless it is important to stress that higher education massification in Western European countries drew more on the development of the welfare state than on a perceived public need for having a highly educated workforce. According to Scott (1995), it was during the period of the 'secondary' welfare state, which corresponds to the mobilisation of political, social and educational institutions for promoting democracy and encouraging social mobility, that the movement of higher education systems towards massification took place in most European countries. The author goes further stressing that "the higher education 'franchise' was greatly extended, primarily to satisfy rising social expectations and only secondarily to meet the increasing demand for skilled labour (which itself was as much culturally constructed as economically determined)" (Scott 1995: 123).

Many human capital scholars disapproved of the trivial usage of human capital as a rationale for all kinds of educational expenditures, arguing instead for educational expenditure decisions based on cost-benefit analysis rather than vague assertions of all education being growth enhancing. The expansion of education should be led by individual demand based on a rational assessment of the potential net benefit arising from schooling, rather than on social policy and governmental intervention without much thought of costs and benefits. Moreover, they argued that the heavy subsidisation of higher education would distort the economic conditions faced by the demand, possibly leading to excessive demand and over-investment in education (cf. Becker 1994). This linked with the broad economic philosophy of most pioneers in human capital research, which could be labelled as the so-called *Chicago liberalism* (see Samuels 1993). (The authors in this book suggest that higher education investments are rather a trade-off between private and public costs and benefits in combination with issues of accessibility.)

From the seventies onwards the rationale underlying public support for education faced growing criticisms from those more sceptical towards the human capital arguments. Some of the most challenging criticisms related to the role of ability and the accusation that human capital researchers had overplayed the role of schooling, downplaying or ignoring a likely *filtering* role of the educational system (Arrow 1972). According to these critics, education basically identified students with particular attributes and abilities acquired either at birth or by virtue of family background, but it did not produce or even necessarily improve them, thus reducing the role of education mainly to its ability to select more productive individuals and to provide that information to employers (Spence 1974). Thus, the enormous growth of the educational sector had embedded in public opinion a naïve and unsubstantiated belief in the potential benefits of education, especially in terms of better job and income opportunities (Berg 1970). To these critical revisionists, the systematic overestimation of the benefits of higher education had become a kind of new orthodoxy in both economic and political discourse that could rapidly lead both to waste and inefficiency and to significant problems of graduate unemployment.

These claims made significant inroads within the economics establishment, proposing an altogether different explanation for education demand and for the

observed correlation between higher education and income and for the apparent payoff to higher education. According to the so-called *screening theory*, higher education was mainly a proxy, or *signal*, for a set of mainly largely intrinsic qualities – including intelligence, good work habits and appropriate social skills – that were sought by employers, but that were difficult or expensive for them to test directly. Higher education attainment was thus less a direct contributor to enhanced productivity than it was a useful signal to economic agents, or potential employers, and thus a kind of filter to the higher paying jobs (the usefulness of which would often remain after the hiring process was complete due to the economic agent's imperfect information on the marginal productivity of the individual worker).<sup>3</sup> In turn, this use of higher educational attainment as a signal passed much of the agent's costs of selection on to the individuals seeking employment and to the government (to the extent of public subsidisation of higher education).

The challenge that the *screening* hypothesis posed to the more conventional human capital theory had significant implications for policy making in general and development policy in particular. Mainly, it questioned the existence of significant *productivity effects* of higher education – and thus implicitly questioned the case for significant public funding, especially of higher education.<sup>4</sup> Although most economists still acknowledge both public and private returns to higher educational attainment, the diminished enthusiasm for very high public returns and for totally tax-supported higher education has strengthened at least the academic case for the forms of cost-sharing that were explored at the seminar leading to the papers collected in this volume.

## 2. TIME OF AUSTERITY IN HIGHER EDUCATION

Notwithstanding these debates within the economics profession, there was a great expansion of higher educational participation in nearly all of the so-called mature economies in the decades leading up to, and extending beyond, the turn of the twenty-first century. Whether this expansion is viewed as a strategic public and private investment in human capital, or as a manifestation of rising social aspirations and the political response thereto (and it was almost certainly both), the huge and steeply rising expense began to outrun the capacities of most governmental treasuries to keep up. The dominant financial theme in higher education became austerity (see Williams 1992).

Higher educational austerity in mature economies is not the same as outright poverty or deprivation. Many or possibly even most of the universities in the OECD countries have impressive physical plants – certainly by world standards – even though much of this physical capital is being slowly consumed through deferring critical maintenance. The faculty – at least the senior faculty – are well qualified and generally compensated at what in most countries would be an upper middle class level, even though there are fewer of them than there were, and their teaching and advising loads are on the average higher than they once were. The austerity in the mature economies, rather, is manifested more in the virtually continuous need to cut something or to do without because something else must be added, or because the

revenues – high though they may be at a point in time, or *on the balance sheet* – are simply not increasing fast enough each year to keep up with the ever-increasing costs. In accounting parlance, the budget may be balanced and show large aggregate expenditures. But it is only kept in balance by shaving a little off in each fiscal year: some faculty and staff losses not replaced, some appointments not renewed, and needed equipment replacements deferred ‘to a better year’ (which never seems to come).<sup>5</sup>

A major component of this austerity has been the surging demand of the past three or four decades. Most of the universities and all of the national higher education systems in the mature economies have grown dramatically since the mid and late 1960s, both in sheer numbers, but more importantly in rates of cohort participation. By the end of the 20<sup>th</sup> century, some countries, especially in much of Europe, North America and Japan, appeared to be nearing a possible saturation point of participation rates, at least in the long and intensely academic *first degree* programmes of the Continental European classical universities (or at least in those students traditionally prepared with solid academic credentials and higher educational ambitions). However, new pressures have emerged to extend higher educational accessibility to populations traditionally under-represented in the upper secondary schools of the advanced industrialised countries, even among those European countries experiencing demographic declines of their young adult populations. Much of this expanded participation in the 1970s, 1980s and 1990s has been accommodated by the development of alternatives to the classical university: for example the German *Fachhochschulen*, the Dutch higher vocational schools (HBOs), the French *Institutes Universitaires Technologies* (IUTs), and the American comprehensive colleges and universities and community colleges. Some of the enrolment pressures might, in the future, be partly accommodated by the 1999 Bologna agreement among the European educational ministers to shorten the standard university *first degree* to a three- or four-year bachelors degree – although the growth of advanced professional programmes and the natural forces for degree accretion may well counter any such relief. The most important force behind the continued growth of numbers aspiring to some form of higher education is probably simply the natural expansion of educational aspirations that comes about as a result of increasing prosperity, increasing communication and the need for democratic governments to respond accordingly. And even those countries facing possible declines in numbers of traditional-age first degree students are still struggling to accommodate the dramatic growth rates that have already happened: to restore some of the former per-student revenues for their universities and other postsecondary institutions and to ‘catch up’, as it were, with the enrolment surges that have already occurred.

This demand, whether still surging or ‘flattening’, is accompanied by *rapidly increasing per-student cost pressures*, fuelled worldwide by a resistance of the higher educational enterprise to the kinds of ongoing productivity enhancements typically associated with the goods-producing sectors of the industrialised economies, in which firms can replace labour with capital and/or better management or outsource production to countries with lower labour costs. Therefore, an important starting point in any consideration of financing higher education is to

recognise that the natural trajectory of per-student instructional costs is to increase at rates equal to the increases in labour costs – only minimally, if at all, offset by advances in productivity – and thus, assuming some growth in the overall economy, almost always in excess of the prevailing rate of inflation. This is higher education's so-called *cost disease*, or the higher educational manifestation of the *rising relative unit cost phenomenon in the labour intensive, productivity resistant, sectors of the economy*. This phenomenon was first articulated by Baumol and Bowen (1966) and has been elaborated upon by Johnstone (1999, 2001) and others. These higher unit, or per-student, costs are then magnified by the continuing growth in student numbers and by the need to restore some of the losses in faculty numbers and in physical plant deferred maintenance that have built up over recent years to produce the voracious need for ever-increasing resources which together constitute the *cost side* of the austerity quandary.

At the same time, governments in nearly all countries (whether highly industrialised, developing, transitional or combinations thereof) seem increasingly unable to keep pace with these cost pressures through increasing public revenues (i.e. with revenues generated by taxation or governmental borrowing) (Barr 2004). This inability to expand public revenues goes considerably beyond a mere unwillingness to tax or be taxed. Taxation and even deficit financing are nearly as difficult technically as they are unpopular politically. In most low and middle income countries – but to a degree also in the highly industrialised, high income countries – individual incomes, business profits and retail sales on which so much taxation depends are simply too easy to hide (or similarly, too difficult to verify). The difficulty in raising taxes is exacerbated by globalisation and the virtually unlimited mobility of capital and productive facilities. In turn, this leads multinational goods' producers to seek a combination of political stability, low wages and *low taxes*, constraining the ability of advanced industrial countries to maintain high taxes and limiting the revenues able to be devoted to their public sectors – including their publicly financed universities.

The large-scale printing of money, or deficit financing, once at least a 'fall back' method of raising public revenue, is highly constrained in much of the OECD community by the rules of the EU community (just as it is constrained in middle and low income countries by the discipline of the International Monetary Fund and the international development banks).<sup>6</sup> The transitional, or post-Communist, countries of Central and Easter Europe, together with the newly independent nations from the former Soviet Union, which were dependent on relatively easy *value-added* taxes on state-owned producers, have had to devise new means of taxation, none of which has been particularly successful. Finally, to the extent that some of these advanced industrialised countries were able to generate significant amounts of new tax revenues, there remains always the other compelling public needs – for example, elementary and secondary education, energy, ageing populations, unemployment, public health, public infrastructure and the protection of the environment – that compete with higher education for these limited additional revenues.

What emerges from this confluence of high and sometimes still rapidly increasing demand, commensurately high and increasing costs, and increasingly limited public revenues are two large, complex and interrelated issues pressing upon

higher educational institutions and governments worldwide, including the countries of the OECD. First, how can the demand for greater (but still high quality) higher educational capacity be met at a lower per-student cost – *and especially at a lower per-student cost to the government/taxpayer?* The policy responses to this dilemma are of two types: (1) those that attempt to *lower costs* – for example, merging institutions for economies of scale, increasing student–faculty ratios, and substituting low paid part-time faculty for better paid full-time faculty; and (2) those that attempt to *supplement limited public revenue with private revenue* – for example, with tuition, fees, philanthropic donations, and institutional and faculty entrepreneurship. The higher educational reform agendas of most countries, including the mature economies as well as the countries of the transitional and developing worlds, contain elements of both.

Second, how can higher education continue to advance the agenda of widening participation and access? Expressed another way, how can higher education resist (and possibly reverse) its natural inclination to reproduce, and even to exacerbate, existing social disparities and inequalities, whether by parents' social class, ethnicity or kinship affiliation, language, region or religion? Access to higher education everywhere is limited by the level and quality of the secondary education, including whatever combination of family cultural capital and private tutors can further enhance the academic preparedness of the aspiring student. Parental income is virtually certain to be a predictor of higher educational participation, especially where means-tested financial assistance and generally available student loans are limited or non-existent. And because parental income is generally correlated with white collar or professional occupation, membership in a dominant ethnic and linguistic group, and access to the best secondary schools – that is, *other predictors of academic preparedness and ambition* – higher education can reinforce and even accentuate existing social stratification, even while some of the very brightest and luckiest of the poor or the rural or the linguistic or ethnic minorities are able to use higher education to escape from their social and economic marginalisation.

The underlying squeeze, of course, has to be solved either on the *cost side* – that is, through cutting waste and enhancing productivity – or on the *revenue side* – that is, through supplements to governmental, or tax-generated, revenue. Cost-side solutions that absorb more students with the same or even declining resources can look deceptively like advances in productivity or efficiency, which we must assume to be desirable. However, while most universities in the world are probably getting by with fewer real (i.e. inflation-adjusted) dollars per student than they were at some base period in the past, most of what may once have been the low hanging fruit of waste has probably been cut, and most of the easy efficiencies long since adopted. At this point in time, *cheaper* is no longer necessarily *more productive* or *more efficient*. Regardless of the difficulty in measuring higher educational outputs and their change over time, *cheaper* may just mean spending less per student – and getting less. Outputs may be declining along with inputs – a decline measured in less quality of learning and/or scholarship or in less service to the community. Or, the decline in real operating dollars per student may be masked by a hidden borrowing in the form of depleting the physical assets by forgoing upkeep and maintenance of the physical plant and the replacement of obsolete equipment. The real decline in

output may also be masked, at least temporarily, by requiring greater and greater effort and sacrifice from the faculty and staff – a long-run wasting of the academic profession. And finally, the decline in output may occur not in anything having to do directly with the performance of the universities or in their teaching and research, but rather in the social cost of diminished accessibility – and thus diminished social justice – occasioned by the constriction of capacity and the increasing financial barriers to widening participation.

It is important that the cost-side solutions not fall from the policy table altogether, as universities are notoriously reluctant to make hard decisions like cutting programmes and especially cutting faculty or staff whose marginal contributions to the university's net production of learning and scholarship product may have fallen to little or nothing. At the same time, the very nature of the higher educational production function is labour intensive and resistant to the substitution of capital for labour. (In fact, most technology introduced in higher education tends to expand learning, scholarly output, faculty or student comfort, or governmental demands for accountability rather than reduce per-student costs.) Also, as noted above, the losses arising from austerity are frequently both hidden and hard to measure – like the diminution of scholarly quality that might not be noticed until the university is called upon to address a question that it can no longer handle, or take a principled stand for which its demoralised faculty no longer have the heart. Indeed, part of the problem of universities everywhere is that it always *seems* as though one more student can be added (and then another and another) with no overall loss of teaching or learning quality – or one more journal can be cancelled, or more pieces of needed scientific equipment deferred.

Furthermore, the nature of higher educational austerity is that it generally cannot be *solved* at a point in time for all time. Most operating expenditure cuts, however deep, solve a financial problem only in a given fiscal year; and even this assumes that the cuts are permanent – that is, not simply deferred. The true underlying cause of higher education's austerity is the result of the naturally diverging trajectories of expenditures and revenues: underlying costs that tend to increase naturally at a rate almost certainly greater, year in and year out, than the natural trajectory of available tax revenues. Such diverging trajectories apply as well to universities that are very wealthy – Oxford, Harvard, Berkeley – which can also experience the pain of difficult budget cuts when their very considerable flows of revenues nevertheless fail to increase as fast as their very considerable expenditures. And this is especially true of public universities for which flat or declining tax-generated revenues make up a large proportion of their revenue base.

These diverging trajectories of underlying costs and available governmental revenues are likely to be greatest in low and middle income countries. Exacerbating the cost pressures, such countries are the most likely to combine high birth rates with sharply rising participation rates for potentially explosive enrolment pressures. And on the revenue side, these same countries are likely to be the ones that also combine the greatest difficulty in raising taxes with the most voracious and compelling competitors (e.g. public health, sanitation, elementary and secondary education, and public infrastructure needs) for the limited public dollars available. However, cost pressures are also great in the mature economies, where the sheer

enrolment increases may be abating, but where international higher educational competition and prestige seeking may be greatest and where expectations on the parts of students, parents and faculty are likely to be the highest.

### 3. THE DRIVE TOWARDS COST-SHARING

Worldwide, the most common (albeit deeply contested) approach to the need for increasing revenue is some form or forms of *cost-sharing*, or the shift of some of the higher educational per-student costs from governments and taxpayers to parents and students (Johnstone, chapter 2; Vossensteyn and De Jong, chapter 8). This trend in the mature economies can be seen in the high and rapidly increasing tuition fees in the United States, Canada, Japan, Australia and New Zealand, and a similar but more gradual development in the Netherlands. More recently, tuition fees have been implemented in the West European countries of the United Kingdom and Portugal and most recently (2001) in Austria, as well as *fees* (not yet acknowledged to be *tuition fees*) in Ireland, France and Italy. Finally, there are the so-called *dual-track tuition fees* of post-Communist Russia, the Czech Republic, and other Eastern and Central European countries in which the ideologically and sometimes legally mandated free higher education has been restricted to the few elites that the government is able to fund, with others admitted on a fee-paying, or privately sponsored, basis.

According to Johnstone (chapter 2), the cost-sharing construct posits that the costs of higher education are borne by four principal parties: governments (or taxpayers), parents, students and philanthropists. The debate on cost-sharing tends to be emotionally and ideologically charged, especially concerning the most sensitive and resistant form: the introduction of, or increases in, tuition fees. Many advocating the introduction of tuition fees expect them to solve all of higher education's financial problems. Many opposing their introduction base their position on equally problematic assumptions – for example, that open access and tuition free higher education must go hand-in-hand, or that tuition fees impose an access barrier and will lead to a decline in student numbers, or that free higher education is fairer from the point of view of distributional justice.

Several of these assumptions have been eroded by research on the economics of education. Evidence from Finland, Norway, Denmark and Sweden, for example, shows that the absence of fees does not help to boost participation of students with low socio-economic status. Neither did the abolition of tuition fees in Ireland in the mid-1990s lead to increased participation from lower socio-economic status students. In the UK and other countries, there have been significant increases in both applications and enrolments despite the introduction of tuition fees.

The distributional argument also appeared to be problematic. Hansen and Weisbrod's studies in the late 1960s of the California state higher education system illustrated the essential *distributional regressivity* of the nominally 'tuition free' system that was supported by proportional or regressive state taxes, but in which students coming from disadvantaged backgrounds were mostly under-represented, especially in the elite (and of course far more costly) segments of the system

(Hansen and Weisbrod 1969). In this way, many economists came to view the highly subsidised public systems as *distributionally perverse*, in which the taxes of many working class families were being used to subsidise the higher education studies of middle and upper class students.

There are important economic arguments when it comes to the issue of cost-sharing. It can be argued that if the users of higher education are requested to pay directly a part of the costs of their instruction, higher education will work more efficiently. On the one hand, the demand will be less biased by an underestimation of the costs. On the other hand, users paying a higher amount will tend to be more demanding of the institutions and the quality of the services provided. This, in turn, will make the institutions more aware of the need to improve their efficiency in the use of their resources.

Often the introduction of tuition fees has been presented as a means to ‘empower’ consumers in higher education (see Jongbloed, chapter 1). The higher the fees that students pay, the higher are the benefits they expect to receive from the provider. Underpinning the charging of fees is therefore the introduction of a client–producer relationship in higher education that disturbs many higher education stakeholders. Tuition fees are also expected to work as an incentive for the students to behave efficiently, inducing them to make more conscious choices.

The advances in the economic analysis of the political process have also made some useful contributions to the debate on cost-sharing. Tax theory has shown that taxpayers can get accustomed to a tax. This has no influence on the incentive effects of taxation (based on the effects on relative prices), but there could be an effect in the political process. If taxpayers get used to a certain tax, it will be less important for their voting decision, so it will cost less votes (see Ziegele, chapter 10). Getting used to taxes or tuition fees could also mean that irrational behaviour in the introduction of tuition fees may be only of short-term relevance.<sup>7</sup>

Cost-sharing is also supposed to play a very important role from an institutional point of view. Apart from the role of fees in rationing available supply across consumers and giving (quasi-) price signals to consumers, fees play a role as a source of revenue for higher education institutions and may serve to increase the range of choices in programme supply and delivery and the capacity of the higher education system. Certain efficiency gains are also expected due to increasing competition between providers and to a closer relationship between the student and the higher education institution. Fees – either regulated or deregulated – are assumed to increase efficiency, quality and – because of the extra revenues they bring in that can be used to subsidise students from under-represented groups – can even help improve access. If higher education institutions are free to set their fees (in a system of price discretion), tuition fees may bear a closer relationship to the different costs of providing different subjects, while allowing fees to also reflect the different financial returns that students (once graduated) enjoy depending on the institution attended and subject studied. However, as suggested by several chapters in this volume (e.g. Portugal), more often the increasing participation of students and their families in the direct funding of higher education is in practice a substitute for governmental funding rather than a supplementary source of revenue. That leaves most institutions in a much similar situation to that existing prior to the

establishment of tuition fees, and without much room for financial largesse with bright students from disadvantaged backgrounds.

#### 4. THE GROWING RELEVANCE OF COST-SHARING TO HIGHER EDUCATION POLICY

The economic rationale behind the case for *students* bearing a portion of the costs of their higher education is that there are substantial private benefits, both monetary and non-monetary, that accrue to the student from higher levels of education and that these benefits justify a tuition – especially one that can be deferred and repaid through some form of loan or a surtax upon income or current earnings. In countries such as Australia, New Zealand and Scotland, and by the year 2006 in the rest of the United Kingdom, costs of instruction that are to be borne by the student but that are automatically deferrable, and for which the revenues are paid directly by the government to the institution, are frequently treated as conceptually quite distinct from *up-front* tuition fees – even though repayment is mandatory and carries a rate of interest (Chapman, chapter 3; Woodhall and Richards, chapter 7).

Higher educational cost-sharing is conceptually complicated by the fact that the monetary costs of college or university attendance include costs of living as well as whatever portion of the institutional costs of instruction the student and/or parent may be expected to pay through fees. In fact, in almost all countries (except the United States), the effective range of existing or contemplated tuition fees in most institutions of higher education is far less than the costs of student living (except, of course, where the student lives in his or her parents' home). However, it is also the case that the costs of food, lodging and other student living expenses would be incurred anyway, whether the individual is a student or not, and are therefore arguably not a share of the costs of *higher education* – even though they may be indistinguishable (from a tuition fee) to the student and his or her family and may have the same effect of financially restricting access to higher education.

An important distinction between tuition fees that are paid *up front* and those that are *deferred*, as well as between living expenses that are absorbed by living at home as opposed to the greater cash outlays required for independent living, is whether those expenses not borne by government or the taxpayer are to be borne by the student or by the parent. The case for *parents* bearing a portion of the costs of their children's higher education – whether via an *up-front* tuition fee (almost always with the caveat of means testing, or the presumption that the parents actually have the financial ability to pay) or via the assumption of all or some of the costs of student living – is conceptually quite different from the case made above for the student share. The case for the parent bearing a substantial portion of the total costs of higher education – whether costs of instruction or costs of student living – requires a cultural assumption that the student – at least through some chronological age or through some level of tertiary education – remains a financially dependent child. This is a feature of most countries in the world with the exception of the Nordic countries; but it is an assumption that many European students also resent and would change – but mainly as long as the government or taxpayer took up the burden, not

necessarily if they would have to assume the additional burden themselves via additional borrowing.

The prevailing assumption in most countries that parents have some financial obligation for higher educational expenses as long as they are financially able is an extension of the assumption of parental responsibility for the general welfare of their children. Similar to the rationale for a student share, the parental contribution is also based on the assumption of private benefits extending to the parents as well as to the student. Whatever the basis for the assumption of an officially expected parental contribution to the higher educational expenses of their children, this assumption is reinforced by the fact that parents all over the world do pay.

Thus, given that the revenue needs of higher education seem almost everywhere to be outrunning the available public revenues, there seem to be few alternatives to some fees (whether or not they are called *tuition fees*) short of denying the universities the revenue that they seem to need and losing either higher educational quality or higher educational capacity or both – to the principal detriment of the poorest or most marginal students, who have the most limited options. In fact, at least in the abstract, most economists maintain that some tuition fees – assuming some means-tested grants and/or sufficient available student loans – are actually more equitable than free higher education in that students everywhere are disproportionately from the middle and upper classes and the taxing systems in most countries tend to be proportional or even regressive.

Europe remains the last bastion of mostly free higher education, although three decades of massification, overcrowding, persistent underfunding and the generally slower economic growth from the mid-1990s into the first decade of the 2000s for many European countries, have been placing great pressure on the universities for additional cuts and alternative revenue sources. The United Kingdom throughout most of the 1990s dramatically reduced its once very generous student grants, and in 1997 for the first time imposed a more than nominal tuition fee (interestingly, under a Labour government), which is to be converted in 2006 to a deferred tuition fee, not unlike the Australian Higher Education Contribution Scheme and, like the Australian HECS, to be repaid through a surtax on the incomes of graduates after these incomes exceed a threshold level (Woodhall and Richards, chapter 7).<sup>8</sup> France and Germany in the early years of the 21st century continue to provide tuition fee-free university education to every graduate of their academic secondary schools, but Austria abandoned free higher education in 2001, and many observers believe that tuition fees in at least some of the German Länder will begin in 2005 or 2006.

The United States presumes both a *parental* contribution based upon the income and some of the assets of the parents (which necessitates some way to test parental *means*, or financial *need*) and a *student* contribution, either from loans or term-time or summer earnings. Scandinavia officially rejects the proposition that parents should be financially responsible for the higher education of their children, but it accepts the notion of a student responsibility, borne through an income contingent loan, repaid as surtax on earnings. Russia, along with most of the rest of the countries of the former Soviet Union, and most of Eastern and Central Europe – all of which have political/ideological legacies of higher education as another entitlement albeit one that the governments can no longer afford to honour – attempt

to have it both ways with a very few *governmentally sponsored* students entitled to the traditionally free higher education (presumably selected by competitive examinations), but all other academically admissible students able to be charged a tuition fee.<sup>9</sup>

All of this seemingly relentless introduction of cost-sharing – increasingly including Europe and the newly independent states of the former Soviet Union and the other transitional countries of Eastern and Central Europe – raises the issue of how to expand higher educational participation among those who have been traditionally under-represented and who are likely to be further discouraged or even excluded by rising private costs. Policies of widening participation in the highly industrialised countries may be viewed as taking either, and desirably both, of two forms, corresponding to the two forms of presumed barriers to higher educational participation.

The barrier is the lack of a successful academic secondary educational experience and the associated lack of aspiration for an appropriate form of higher education. The reasons for dropping out, or being inappropriately ‘tracked’ out, of an academic higher educational preparatory track are complex and probably based largely on family and peer culture and the nature of the secondary educational experience. Relevant to the theme of this book, however, is the degree to which children in the middle and upper secondary grades – particularly children from lower socio-economic or ethnically or linguistically minority families – perceive higher education to be both academically and financially *possible* and, even if financially possible (as through the assumption of student debt), to be also financially *worthwhile*. Thus, public policies for expanded participation need to address not only the necessary secondary-level academic preparation, but need also to stress the more effective communication of both the benefits of higher education and the forms of student financial assistance that may be available to meet what may otherwise seem to be insurmountable expenses to the student and/or parents.

The second form of barrier is financial and is conventionally addressed by governmental subsidies to minimise the expenses that must be borne by parents and students. However, in keeping with the essential message of this introduction – the increasing need for forms of non-governmental revenue, especially from parents and students – the governmental subsidies must increasingly be targeted on those potential students for whom the subsidy, whether in the form of a grant or a loan, will make the difference in higher educational participation. Thus, governments in most countries are devising forms of student financial assistance, including student loans and means-tested grants, to reduce the potential financial barriers to participation.

Surely, few people would argue for the opposite situation of a fully privatised higher education funding, which would imply that society placed no value at all on the externalities generated by higher education. As most authors suggest in their chapters (namely Chapman, chapter 3), there are several examples that illustrate the problems arising from funding of education mostly on a private basis. First, there is the issue of uncertainty faced by prospective students, who may be unsure about their academic capabilities and who may thus face a risk of not being able to complete their degrees. Second, even if students complete their degrees, most

students will be ill-informed about their future income and professional career. Third is the uncertainty due to structural changes in the labour market that necessarily affect the future value of the investment in education. Finally, many prospective students, particularly those from disadvantaged backgrounds, may not have much information concerning graduate incomes, due in part to a lack of contact with other graduates (see Callender, chapter 4).

These uncertainties are linked with important risks. If future incomes are lower than students expected, they are unable to sell part of the investment, for instance to try an alternative training process. This illustrates how important is the understanding of capital market failure when analysing alternative mechanisms of participation of students and their families in funding higher education. Commercial banks will hardly be interested in unsecured loans for higher education investments, enhanced by the fact that there is no collateral to be sold in case of payment default. Moreover, even if it was possible for a third party to own and sell human capital, its future value could eventually be quite low, hence a quite risky investment. This has led many to sustain that in the absence of government intervention access to higher education will be restricted significantly, since the capital market would be less than willing to finance most private human capital investments.

## 5. OVERVIEW OF CHAPTERS IN THIS VOLUME

The chapters in this volume emerged from a seminar in which this underlying policy dilemma was taken as the starting point. The chapters that follow are written by scholars from Australia, Canada, France, Germany, Norway, Portugal, the United Kingdom and the United States. Reflecting the historical, political, cultural and financial complexities of these conundrums, the chapters in this volume bring together theory, description and policy experience – but few easy answers.

The book starts with a few chapters that portray the current state of the intellectual and political debate regarding the introduction of cost-sharing. In the first chapter Ben Jongbloed discusses some of the main economic arguments that have been presented to rationalise the introduction of cost-sharing. Namely he discusses the potential improvements in the efficiency and effectiveness of higher education that are expected from strengthening market mechanisms in higher education finance, by improving the degree of choice of higher education consumers alongside their increased financial participation. In the following chapter Bruce Johnstone outlines the conceptual framework of cost-sharing and analyses the main forms of cost-sharing that have been introduced worldwide. In the third chapter Bruce Chapman focuses on one increasingly popular form of cost-sharing, that is, income related student loans. This instrument that has been used for some years in Australia and New Zealand seems now to be spreading to other continents. As mentioned above, one of the major issues in the debates about cost-sharing is the equality in access to higher education, namely in what concerns socio-economic backgrounds. This issue is discussed by Claire Callender in the following chapter, based on innovative and important empirical research conducted by her and her colleagues in the British context.

The second half of the book includes a set of chapters that analyses the introduction of cost-sharing in a diverse and representative set of countries. Altogether they reflect both the relevance and the complexity of introducing cost-sharing for higher education policy. In the fifth chapter Donald Heller analyses the case of the US where a much older tradition of cost-sharing has been clearly invigorated in the last years. This trend, which has been enhanced by changes in student finance mechanisms, has had various important implications in terms of the structure of the system and the composition of the student body. In the following chapter, Ross Finnie and Alex Usher analyse the trends in terms of cost-sharing and access in the Canadian system, paying attention to one very important element which is the complexity introduced by having different levels of government and their impact in funding mechanisms and educational opportunities across the country. They also reflect on issues of feasibility when it comes to choices between alternative models of sharing the growing costs of higher education.

Although Europe has very much remained the last bastion of tuition free higher education, the situation has been changing steadily and significantly, and several of the chapters included in the volume confirm it. One of the countries that introduced tuition fees in the last decade was the UK. However, as Maureen Woodhall and Ken Richards explain in their chapter, the situation has become more fuzzy due to the political devolution which has open the possibility for the existence of different systems of higher education funding and for different forms of cost-sharing in the countries that are part of the UK. Another country that has been experimenting for some years with the introduction of cost-sharing is the Netherlands. The apparent unresponsiveness of student demand in this country has intrigued researchers in the field and that is the main focus of Hans Vossensteyn and Uulkje de Jong's chapter, in which they attempt to provide a different analytical framework that can make sense of this apparently irrational behaviour of student demand. Portugal is another country that has moved rapidly from an almost tuition free regime to a more significant direct contribution from students and their families. This has happened alongside one of the most rapid expansions of higher education systems that brought along the emergence of a strong private sector unique in the Western European higher education landscape. As Pedro Teixeira, Maria João Rosa and Alberto Amaral discuss in their chapter, these many and complex changes touched the student composition more effectively in some dimensions than in others, leaving some issues to be solved in terms of socio-economic opportunities.

The trend towards cost-sharing if present in the political debate has thus far left somehow untouched some Western European systems. The vivid debate that has characterised some of these countries suggests that the situation may change in the coming years. That is the case of Germany where, as Frank Ziegele explains in his chapter, several alternative models of tuition fees have been proposed by various stakeholders. The recent decision of the German Constitutional Court in favour of some Länder willing to advance towards the introduction of tuition fees confirms that the German system is one to be followed carefully by those interested in cost-sharing. Likewise for the French case, though the introduction of tuition fees on a general basis seems less likely. However, as discussed by Thierry Chevaillier and Jean-Jacques Paul, the financial difficulties of the French public finances raise some

important doubts upon the financial viability of the current system. In the final national chapter, Per Olaf Aamodt discusses the Norwegian case. Although another example of the lasting generosity of Scandinavian welfare regimes, the Norwegian system illustrates vividly the point that there is more than financial motivations in order to understand student behaviour and educational equality.

The book ends with chapter 14 that presents the major overall conclusions on the state of the art of cost-sharing in mature countries. Issues that are dealt with include the role of private contributions to higher education, their shown impact on access to higher education and ways to further expand and widen higher education.

Clearly, there is a fundamental tension between the two themes of this book: (1) the quest for greater financial viability to institutions and national systems alike, both through cost control and revenue diversification (including greater cost-sharing); and (2) the need to further widen participation, which among other things calls for greater – but also more targeted – student financial assistance. There will have to be hard choices. But there will also have to be smart and cost-effective policies.

This book presents the most current thinking (as of 2004) by some of the foremost scholars of higher educational finance in the mature, or highly industrialised, economies of the world. While we are mindful of the highly contextualised nature of problems and policies alike, and thus of the limits to the international transferability of solutions, we also believe there is much to be gained by sharing these accounts – just as the authors were able to share their draft papers and experiences in the fall of 2004 on the banks of the Douro River in Northern Portugal. We hope that our readers will gain as much from our contributions as we have gained in their drafting, critiquing and discussing among ourselves.

This book is dedicated to the memory of Jean-Claude Eicher for his pioneering work in studying economic and financial aspects of higher education, particularly in Europe.

## NOTES

- 1 Important developments also happened in terms of the analysis of income distribution and the role of education and training in enhancing people's lifetime income. Notably, after Mincer's doctoral work (1957), human capital came to be regarded as a powerful force in terms of promoting an individual's earning capacity, by making individuals more productive, as shown by the steeper slopes of the life-path income curves, and by a greater dispersion of incomes. Mincer's doctoral work became a turning point in terms of personal income distribution and in the economic role of education and training and henceforth these came increasingly to be regarded as powerful forces shaping personal wealth. A lot of research would follow along these lines, largely stimulated by the pioneering work by Mincer, in close interaction with another crucial figure in the development of human capital research, Gary Becker (see Becker 1964).
- 2 The World Bank seemed to be always more receptive to a human capital framework than the OECD or the UN, especially after the creation of the IDA (International Development Association) in 1960.

Nonetheless, the activity of the Bank remained very limited on education until the early seventies' expansion under Robert McNamara, which was reflected in the increasing funds available for education, the establishment of the Education Projects Department (1971) and its recognition as a main area of activity. From the eighties onwards the Bank devoted growing resources to educational projects (Jones 1992).

- 3 This should not be interpreted as the social value of education being zero, since it helped in solving an important informational problem of allocation in the job market (Spence 1974). In fact, the social value of education was mostly in its ability to select more productive individuals, providing important information to employers (Arrow 1972).
- 4 This view is even more critical in low income countries that are struggling to cover the most basic governmental functions and thus with such high opportunity costs to marginal expenditures on higher education.
- 5 One of the editors of this volume and authors of this introduction (Johnstone) spent nine years as president of the largest comprehensive college of the State University of New York system and another six years as chancellor of that system, which consists of 29 distinct state-operated colleges and universities and had a consolidated budget of more than \$5 billion. In almost every one of those fifteen years (and frequently more than once in a single fiscal year), he and his administrative team had to cut faculty, staff and operating expenses (on more than one occasion extending to the removal of tenured faculty), totalling between 15 and 20 per cent of the full-time faculty and staff of these institutions. At the same time, by most measures, the State University of New York at any single point in time would appear to be well financed (Johnstone 2001).
- 6 It is important to note that the impact, or *incidence*, of deficit financing that is unmatched by savings (i.e. the mere printing of money) is much the same as a consumption tax, with citizens' purchasing power being essentially confiscated via inflation rather than via either direct or indirect taxation.
- 7 It can be argued how much of this behaviour can be labelled as irrational. It may be that students are just insufficiently informed or even clearly rational but motivated by other factors not always taken into account by standard economic analysis.
- 8 Interestingly, what appears to be an unintended consequence of the UK's shift from an up-front to a deferred tuition fee is not a shift back to governmental funding, but a transfer of cost burden from the middle and upper middle class parents (low income parents did not have to pay the means-tested up-front tuition fee) to all students.
- 9 Many Russian universities, as of the early 2000s, were getting as much as one-third of their revenue from tuition while still adhering to the tradition and legal requirement of *free higher education*.

## REFERENCES

- Arrow, Kenneth. "Higher Education as a Filter." *Journal of Public Economics* 7 (1972): 193–216.
- Barr, Nicholas. *Economics of the Welfare State*. 4<sup>th</sup> edn. Oxford: Oxford University Press, 2004.
- Baumol, William J. and William G. Bowen. *Performing Arts: The Economic Dilemma*. New York: The Twentieth Century Fund, 1966.
- Becker, Gary. *Human Capital*. 3<sup>rd</sup> edn. Chicago: Chicago University Press, 1994.
- Berg, Ivar. *Education and the Jobs: The Great Training Robbery*. New York, NY: Praeger Publishers, 1970.
- Blaug, Mark. "The Empirical Status of Human Capital Theory: A Slightly Jaundiced Survey." *Journal of Economic Literature* 14.3 (1976): 827–855.
- Hansen, W. Lee and Burton A. Weisbrod. *Benefits, Costs and Finance of Public Higher Education*. Chicago: Marklam, 1969.
- Johnstone, D. Bruce. "Financing Higher Education: Who Should Pay?" In Altbach, P., R. Berdahl and P. Gumpert (eds). *American Higher Education in the Twenty-first Century: Social, Political and Economic Challenges*. Baltimore: The Johns Hopkins University Press, 1999, 347–369.
- Johnstone, D. Bruce. "Higher Education and Those 'Out-of-Control Costs'." In Altbach, P., P. Gumpert and B. Johnstone (eds). *In Defense of American Higher Education*. Baltimore: The Johns Hopkins University Press, 2001, 144–180.
- Jones, Philip. *World Bank Financing of Education*. London: Routledge, 1992.
- Papadopoulos, George S. *Education 1960–1990. The OECD Perspective*. Paris: OECD, 1994.

- Samuels, Warren J. (ed.) *The Chicago School of Political Economy*. New Brunswick: Transactions Publishers, 1993.
- Scott, Peter. *The Meanings of Mass Higher Education*. Milton Keynes: Open University Press, 1995.
- Spence, Michael. *Market Signalling*. Cambridge, MA: Harvard University Press, 1974.
- Teixeira, Pedro. "Economics of Education: An Exploratory Portrait." *History of Political Economy* 31 Annual Supplement. Durham, NC: Duke University Press, 2001.
- Williams, Gareth. *Changing Patterns of Finance in Higher Education*. Milton Keynes: Open University Press, 1992.

BEN JONGBLOED

## STRENGTHENING CONSUMER CHOICE IN HIGHER EDUCATION

### 1. INTRODUCTION

This chapter is concerned with the topic of student choice in higher education. In particular it focuses on ways of strengthening students' market power and giving more scope for students to have their interests served by the providers of higher education. This topic receives a lot of attention in many societies these days because it is felt that a system that relies heavily on central planning is unable to respond to the needs of an increasingly diverse student clientele. It is generally believed that consumers are better equipped than ever to make their own choices; increasingly consumers possess the wealth, means and skills to make choices that affect their personal wellbeing. To this end many governments have in fact liberalised a large number of the markets that were previously regulated and protected by government. Examples are public utility sectors, telecommunication, electricity, etc.

However, the higher education market in many mature economies is still characterised by a great deal of regulation. The question is whether the kind of liberalisation we see in other quasi-public good sectors can be extended to the higher education sector. To what degree does allowing student choice to be accommodated lead to improved educational outcomes? As will be argued in this chapter, the answer to this question will depend heavily on how rational students are, the degree of transparency that exists in the higher education market and the way the government has shaped the funding and framework conditions for this market.

Before addressing the effects of various initiatives to strengthen student choice in higher education we will present a model that incorporates the various factors that shape student choice. This is done in the next section. Of these factors the ones of concern will be those relating to government policy – the *institutional* factors that shape student choice.

After presenting the broader concepts and the theoretical model that ties them together, a number of specific issues that relate to student choice will be addressed, namely:

1. Rationality as the basis of decision making by (potential) students;
2. Information provision and transparency and how it affects student choice;
3. How tuition fees affect student choice;
4. How student financial support affects student choice;

5. How different mechanisms for the public funding of higher education affect students' market power;
6. The effect of widening (or restricting) the range of educational choices for students.

The six topics all have a direct relevance for the degree of *consumer sovereignty* that is experienced in a higher education system. Strengthening consumer choice by giving consumers (i.e. students) more freedom, means and options to have their demands met is an essential ingredient in the marketisation policies alluded to above (see Jongbloed 2003; Teixeira et al. 2004). In the final section of this chapter, we will reflect on the following questions: to what extent is consumer sovereignty realistic for higher education and are markets an efficient method of organising activity in the case of higher education. The section will also present some conclusions in the shape of policy options that may be considered for strengthening consumer choice.

## 2. THEORETICAL FRAMEWORK

In many countries there has been a massive expansion in student numbers in higher education. An increasing proportion of young people go to university or another form of higher education. While it is established that educational attainment is central to entry to higher education, it is interesting to see which factors, net of educational attainment, influence young people's entry. The research literature on student choice (e.g. Hossler, Schmit and Vesper 1999) tells us that, apart from educational attainment, many issues can affect decisions to go on to higher education study. In this research literature, schooling careers are often seen as a sequence of decisions in which many factors and variables play a role. Student choice – or college choice – may be treated as a complex multistage process involving a series of successive decisions that ultimately may result in the decision to take part in higher education by choosing a particular course in a particular higher education institution. Financial factors, like the presence or absence of a tuition fee or the availability of student support in the form of grants or loans, are only some of the factors that affect higher education entry.

Elsewhere in this book, Vossensteyn gives an exposé of the various models and variables that affect students' decisions to invest time and money in higher education. Here, student choice is placed in the context of the so-called information-processing models (Hanson and Litten 1982; Hossler, Schmit and Vesper 1999). These models depict college choice in an interplay of information and incentives that in various stages of the choice process, and with varying degrees of intensity, affect the decisions that (prospective) students make with respect to educational careers. In this perspective, individuals make decisions on what steps they want to take, what information they will use and what they will exclude.

Therefore, to study student choice in higher education the schema presented in figure 1 will be used. It is not an explanatory model, but merely serves to focus attention on some of the factors that play a role in the sequence of activities in the

choice process and their outcomes. The model does not distinguish all potential determinants of student choice.<sup>1</sup> It merely lists the main categories of factors that play a role without explicitly stating the stage in the process when particular variables come into play. Schooling career decisions initially are shaped to a large extent by the student's social background. Parents, peers, school teachers and 'significant others' in the environment of an individual are important sources of information in the stage where career aspirations are formed. Values and attitudes are transmitted from the socialising agents of (potential) students. In student choice models, the indicators of social background relate to parental income, parental education and occupation of father and mother. Preferences for particular types of education are also determined by an individual's personal attributes ('taste for schooling') and academic ability. Thus, in the first stage of the student choice process, preferences are shaped and translated into demand for education. The demand for education relates to issues such as how much education, what kind, what programme, which institution. This triggers a search process for where information is gathered and processed by students. The information concerns things like the range of choices available in the educational system, the expected outcomes of training programmes and labour market prospects (e.g. expected earnings). The range of educational options which students can choose from is very much determined by the student's prior education and his/her combination of examination subjects.

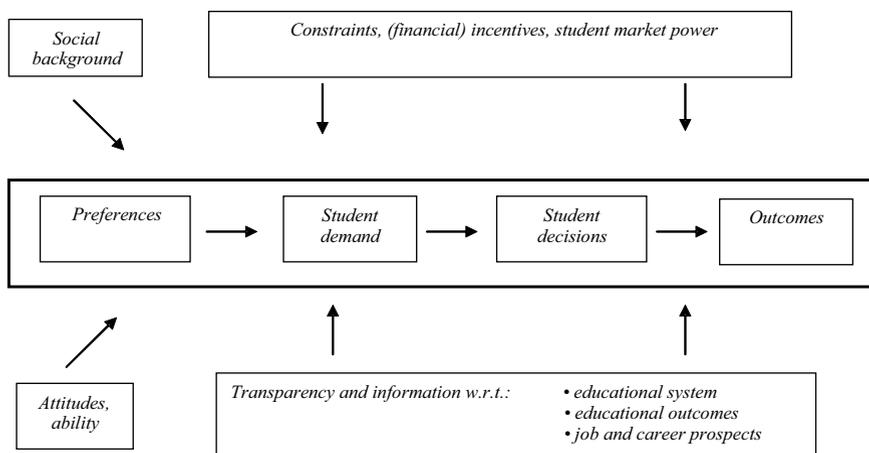


Figure 1. Student choice: The various stages and some of its determinants

The decision made by students with respect to higher education entry (the student's investment decision) is the result of the individual's demand confronted with the available educational supply. Like student demand, the result of this interaction between demand and supply can to some extent be influenced by

government's rules, regulations and incentives – the *institutional* factors, shown in the large box on top of figure 1. The institutional framework affects the decisions of students as well as the providers of education. For instance, government policy shapes the structure of the curriculum of higher education as well as that of other levels of education. Government is also trying to keep an eye on the standards and qualifications offered by educational providers, the competition in the higher education market. And, most importantly for this book, government is funding higher education providers and offering financial support to students so that the education system is accessible to students and offers sufficient capacity and variety in terms of places and quality.

With respect to the last-mentioned topic, some governments allow institutions to charge tuition fees. However, unlike in a real market situation, the interaction between supply and demand does not take place through the operation of a price mechanism. Excess demand or excess supply is not eliminated through adjustments in prices and the consequent adjustment of the quantities supplied or demanded. Government intervention in the higher education market means that the contribution students pay for their education (the tuition fee) is only a relatively small percentage of the total cost. What's more, the cost of higher education entry – at least for some students – is made more bearable through the availability of various types of student financial support, be it in the form of grants, scholarships, loans or deferred payment of tuition fees. Other (financial) incentives may also be mentioned here, such as premiums granted to students who choose science and engineering programmes, or job guarantees to persuade students to take up a particular programme. The issue to what extent government policies that fall under the heading of *cost sharing* can be combined with policies that guard access to higher education is discussed in several chapters in this volume. Some of these issues will be touched on later in this chapter as well.

What this chapter is most concerned about is how to strengthen student demand by increasing students' market power, enlarging the range of educational options, and/or increasing the transparency of the higher education market. The outcome of the decisions made by students in interaction with the providers of education has several dimensions, such as the student's educational achievement, the quality of the system, levels of participation, efficiency, etc. It would be interesting to see to what extent increasing students' market power leads to 'better' outcomes. However, the outcomes of students' decision making do not just depend on students, their characteristics and the policies affecting them, but also on the operation of – and policies relating to – the education providers and the labour market.

With respect to the latter, the labour market or, more generally, societal factors will exert an important influence on the programmes offered and the decisions students make. However, these are factors that fall largely outside the scope of this chapter, because the focus is mainly on the factors that can be influenced by government policies. Indirectly, though, the labour market does play a role in our conceptual model because the qualifications offered by higher education providers and the degree contents in terms of knowledge and competencies are developed by the providers in close cooperation with those making use of higher education's

services and graduates, that is, the firms and other employers of graduates. Accreditation, quality assurance and recognition procedures may be mentioned here.

With respect to educational supply, it is worth mentioning that the government is overseeing the entry of new providers in the higher education market and it is responding to the claims that providers may express for public funding or financial support for their students. The recognition, accreditation and public funding of higher education provision might be extended in order to create more room for students and institutions to cross all sorts of borders more easily. For example, a system of vouchers or learning entitlements may enable students to consume parts of their education from (recognised, accredited) private providers and thus create more competition in the higher education system. Another example is the portability of student support. This is an issue that recently showed up on the political agenda (Vossensteyn 2004). Yet another example of increasing student mobility across borders may be found in policies where the government forces higher education institutions to restructure their programmes to meet international agreements on diploma structures (bachelors, masters, PhD programmes).

Finally, the conceptual model presented in figure 1 singles out two important categories that shape student choice: (1) financial incentives and regulations; and (2) the various informational aspects surrounding the decisions made during various stages in a student's educational career. Student choice can be strengthened by changing the public (and private) funding mechanisms or by making more information available to students. However, the results these actions will have for the actual decisions made by students and the educational outcomes will depend to a large degree on how rational students are and how well the relevant markets and higher education institutions more generally operate to serve students' needs. The rationality issue is discussed next (section 3). After that, the various dimensions of market imperfections and how governments may work to overcome them are discussed in sections that pay attention to the issue of transparency (section 4), the price insensitivity of student demand (section 5), the liquidity constraints faced by students (section 6), the generally low degree of market power (say consumer sovereignty) that students possess due to the fact that public funding places more emphasis on providers than on consumers (section 7), and the various types of restrictions that students face when applying for a particular higher education programme or institution (section 8).

### 3. RATIONALITY AND STUDENT CHOICE

Measures to strengthen student choice are carried out with the aim of giving students as much as possible the information, financial means and room to make a rational choice as to where and what to study. Transparency of the market as well as guidance and counselling clearly are requirements for a rational choice. However, before discussing these conditions it is necessary to consider the concept of rational choice and to what extent students can be expected to behave rationally.

In traditional economics, consumers are supposed to be individuals acting rationally to maximise their expected utility. This means that consumers weigh all

alternatives and choose to allocate their resources in such a way that they achieve the optimal ratio of costs and benefits. Stated differently, given their preferences, budget restraints and given product prices, consumers use the available information to evaluate all alternatives and choose the option that leads to the highest level of lifetime utility. This economic approach to human behaviour is also frequently used to explain individual action and behaviour in the field of education (Becker 1976). If the criteria for utility maximisation were known, the outcome of choices would be relatively easy to predict. However, as is argued in the chapter by Vossensteyn in this volume, there is reason to question the rationality assumption that is underlying mainstream neo-classical economics.

These days, researchers in consumer psychology have a more differentiated approach to consumer choice. In the real world, the number of alternatives is frequently too large for consumers to consider them all. Moreover, consumers lack the knowledge and information they would need to judge the alternatives in terms of consequences (costs and benefits). Further, the consumer may not even have a clear goal (or a priority of goals) on which he/she can judge which alternative is best. Research in consumer psychology has shown that consumer decisions are seldom the result of purely rational cost-benefit analysis based on a stable set of preferences. Instead, consumer decisions are highly complex and cannot be detached from the social and political context in which they take place. Individuals may select a product or service on the basis of non-rational considerations, for instance because of their desire to do what their environment expects of them. At best, such behaviour may be seen as based on the assumption of *bounded rationality* (Simon 1978), or partial rationality. This appears to be the case for both relatively unimportant routine decisions involving the purchase of inexpensive goods for instance, and more significant life choices concerning an individual's education or career (Menon 2004).

In other words (see Meijers 1995), an 'ideal type' consumer acting in a perfect market characterised by full information does not exist. Where individuals' choices in terms of education and career moves are concerned, Meijers argues that, due to the complexity and uncertainty surrounding choices, neo-classical assumptions do not hold. He argues that study choice may be seen as a series of successive decisions that individually are conditioned by previous decisions and frames of reference such as family and social background. Educational choice is incremental in nature and higher education candidates often only consider the programmes offered by higher education institutions in their region. In their decisions they use rule of thumb and are heavily influenced by the choices made by their peers or 'significant others' in their environment. Individuals develop strategies to handle complexity and uncertainty, for instance by engaging in information searches. From an individual point of view those strategies may be seen as rational in the sense that the individual judges alternatives on the basis of available information in such a way that the choice made has the highest chance of leading to the desired outcome. Thus, even if the individual choice does not lead to equilibrium between supply and demand in the labour market or even if it restricts the career opportunities of the individual, the choice may be regarded as rational. From the perspective of the individual, his/her

choice may be seen as rational, while from an outsider's perspective the choice may be poorly understood. Rationality, therefore, is a highly subjective and relative concept.

While in economic literature – in particular human capital theory – rationality is understood as maximising one's returns in terms of career opportunities, income and job security, Meijers (1995) argues that labour market considerations hardly enter student choice behaviour. Prior achievement in education in particular shapes the choice of programme in a consecutive phase in one's educational career (e.g. individuals choosing the subjects or direction in which they have been successful before, or taking the line of least resistance). Also self-realisation and enjoying one's youth are motives frequently quoted by individuals making educational decisions. In other words, study choice and career choices may not be rational from a narrow human capital point of view, but they may be seen as rational from a *retrospective* standpoint; individuals are seeking a justification for choices already made, for instance choosing to go where friends go, wanting to be close to home, etc., rather than selecting the best investment per se (that will actually maximise their lifetime utility).

This discussion points to the difficulty associated with the definition – let alone measurement – of the rationality concept. While rational choice may be defined in terms of the best possible action for the individual making the choice, there are different approaches to the rationality concept. As stated by Menon (2004: 272):

... attempts to define the concept differ with respect to their use of the decision maker's subjective perception of reality in their assessment of rationality. Thus one approach is to consider as rational what the decision maker chooses as the best course of action for himself/herself, while a different approach would require that rationality be assessed and measured against an objective criterion.

Whatever one's definition of rationality, a distinction needs to be made between (complete, bounded, partial or some other form of) *rationality* and *irrationality* on the one hand and (the consequences of) *uncertainty* on the other. Uncertainty derives from the fact that the future is unpredictable and information on the nature and prices (opportunity costs!) of products or services is imperfect. True irrationality in the economic sense of individuals not optimising expected utility subject to uncertainty and other information imperfections should be separated from individuals choosing or doing what is rational *given* those market imperfections. If individuals are fundamentally rational and the problems are of the latter type (i.e. uncertainty, imperfect information), the potential role for policy would be to try and address those market imperfections by helping students make the decisions they want. If, on the other hand, students are fundamentally irrational then giving them more information or eliminating market imperfections will not necessarily improve outcomes. In the latter case there may not be a need to strengthen consumer choice in higher education, and it might be better to, for example, let educational authorities offer the programmes they deem best for students rather than let student preference drive programme selection. In other words, there is a distinct set of policy implications stemming from one's judgment of the degree of rationality, with a potential role for government in terms of helping students rethink their priorities, increase their skills in making decisions in complex situations, etc., as well as

improving their information sets. The first type of policy is helping individuals to approximate rationality, while the second is about reducing uncertainty. This second topic is taken up in the next section.

#### 4. TRANSPARENCY AND INFORMATION

Markets only function efficiently if consumers are in the position to make a considered (not necessarily rational) choice from the set of given alternatives. Being 'in the position' includes having sufficient information about what is on offer in the market. The degree of transparency in the market, therefore, is an important characteristic that affects individuals' ability to make an informed choice about the kind of programme that suits them and where they can enrol for such a programme. Student choice therefore can be strengthened if the education market is made more transparent. If transparency is a problem, student counselling and guidance can provide some relief. However, one first has to assess whether the market itself may offer a solution – for example, by means of private companies offering information services in the form of consumer guides or personal career advice. If problems persist, governments may intervene and guarantee transparency as part of their strategy to protect consumers in higher education and to make clear to potential employers of graduates what the programmes and degrees actually stand for. This allows all parties in the market to make better-informed choices.

A large heterogeneity in programme supply may be problematic for consumers, but it also has a potential advantage in the sense that it is an indication of a wide range of alternatives from which students may choose. Notwithstanding this, the provision of sufficient and reliable information to prospective students is seen as an essential area for government concern. The efforts of some national governments to weed out the confusion over programmes that have similar contents but different names is an example worth mentioning. In the Netherlands, institutions were required to embark on an operation intended to make the programme supply more easily surveyable for students by renaming programmes.

On a slightly different (and more contentious) note, governments sometimes try to prevent providers from offering many types of disciplinary specialisations at an early stage in a student's educational career.

Transparency in programme supply not only relates to a full and reliable overview of programme offerings but also to information on the quality of programmes and graduate career perspectives. This information may be offered in the shape of ranking systems and databases that prospective students can consult when faced with the choice of going to college or entering the labour market. Reviewing the supply of study choice information in a number of countries, Jongbloed et al. (2004) came to the conclusion that overall, the type of information available to students and the way it is distributed seem to be fairly consistent across different educational systems. Information channels regularly involve reliance on other people's guidance, such as secondary education career counsellors, family members and friends. Direct interaction with universities through college open days also seems to be a popular mode. Finally, information is channelled to prospective

students through the provision of open-source data. This includes university and government education web pages or portals and commercially provided consumer guides, rankings or databases.

These examples of information sources concern the supply side of the education market. However, for making informed choices, students will first have to define their own educational demand and preferences. This requires skills and preparedness on the part of (prospective) students. It relates to the question of whether teachers, career counsellors and other individuals in the environment have informed students during their educational career about educational and career options.

The information itself can generally be divided into objective and subjective components. Objective data can be further disaggregated into purely descriptive and evaluative information. Purely descriptive data would include such things as universities' contact information, admissions procedures, lists of programmes offered and geographical location. In contrast, evaluative information is provided to help prospective students compare higher education providers or their programmes on what are deemed to be relevant criteria. Data on student/faculty ratios, library holdings, admissions requirements, characteristics of the student population (such as the number of women, ethnic minorities or international students) and the percentage of applicants admitted would fall under this category. Unlike purely descriptive data, evaluative information is provided so that individuals can seek out providers or programmes that are more likely to fit their preferences and needs.

Higher education critics frequently argue that students learn far more from their professors and hands-on learning than they do from just reading a book. This line of reasoning also seems to prevail when it comes to prospective students and the study choice process. The available evidence reported in Jongbloed et al. (2004) suggests that individuals get far more out of on-site visits to universities and face-to-face interactions with secondary education career counsellors, parents and even their friends than they do from comparing student/faculty ratios or enrolment distributions across various undergraduate programmes.

In many respects, such a finding is not surprising. Economists have long recognised that questions like which education to buy and who to buy it from are far and wide more complex than those undertaken in the process of buying other commodities. Unlike cars or clothes, individuals cannot immediately value the education they purchase; higher education is a so-called *experience good*. This potentially gives education producers (higher education institutions) a great deal of incentive to maximise their own gains by offering a substandard product to the students. In other words, information asymmetries lead to market failure. In this case, the individual's only option is to estimate what an education in a particular programme or from a given institution will *likely* be worth. How do prospective students seek out such information? From the previous section we know that they take into account labour market information only to a small extent, and make use of highly subjective information. Examples of information taken into account are indications of the amount of work that goes into completing a study programme (or the difficulty in passing classes) and intrinsic rewards like a low-stress work environment. Subjective information like this seems to be far more important to prospective students than the average class size or the amount of student/faculty

interaction that takes place.<sup>2</sup> However, information of the latter kind does not tend to be readily available.

Information on the comparative quality of study programmes generally does not have a high profile in the publicly provided study choice information. This is not surprising in light of widespread ambiguity over what constitutes quality. To impose regulations on the content of the information that is made publicly available would not only demand consensus as to what constitutes quality, but would disturbingly put government (or some delegated body) in charge of deciding for the public what constitutes good or bad education. It is clear, based on the controversy generated by rankings and league tables, that third party estimations of who is the best or who produces the highest quality inevitably come under public fire for excluding some factors and including others. As one economist put it, public agencies have a responsibility for ensuring that restaurants maintain hygiene standards but they are not responsible for producing a guide that informs the public about which restaurant makes the tastiest food.<sup>3</sup>

Though critics argue that student/programme mismatches are largely attributable to consumers who are either under-informed or hampered by a need to sift through mountains of information, a good deal of the problem can be attributed to exogenous factors. One, cultural characteristics such as the widespread desire of students to not move far from home, drive students to immediately limit their set of feasible options and thus increase the chance that mismatches may occur. Such immobility is prevalent in many countries. Two, indecision about what type of career to pursue, largely brought on by inexperience and unfamiliarity with what options exist, coupled with the growing societal pressure to obtain a higher education, inevitably forces individuals to prematurely choose ill-fitting study programmes. Three, who bears the cost of financing a higher education also plays a critical role. Individuals in countries where students and their families bear a greater percentage of the overall costs or where the system employs selective admissions practices are naturally going to be more discriminate consumers.

It is clear that prospective students face no shortage of study choice information. Individuals have a veritable mountain of information at their disposal and even more in the way of opinion. If we are to improve the procedure of matching education consumers and producers, the pertinent question is where are breakdowns occurring in the process by which individuals sort through the available information? Factors like student immobility, cost pressures and system structures that force individuals into making premature career decisions are all promising avenues for further inquiry. In the meantime, both empirical observation and economic theory suggest that market mechanisms in some countries provide individuals with reliable signals about the relative attractiveness of getting a degree in one institution over another or in one programme over another. From this perspective, establishing public- or private-borne university/programme rankings is of dubious value when it comes to improving student choice. The evidence would seem to indicate that such rankings tend to serve higher education researchers, government funding agencies and even universities much more than they do prospective students.

So, what does this tell us about ways to strengthen consumer choice in higher education? First, that information searches among (prospective) students occur less

often than one would expect under traditional economic theory. Personal impressions coupled with the opinions of others would seem to do more to shape programme choice decisions than printed facts or statistics about university or programme characteristics. This points to a distinction between *soft* (or informal) information, obtained from people, and *hard* (or formal) information, as published in journals, prospectuses, consumer guides, databases, etc. Connor and Dewson (2001: 47) have found that, in the UK, students seem to prefer information that is more tailored to their own needs and relevant to their own personal circumstances. This is connected to the fact that information given verbally is more appreciated, partly because it can be more personal.

The second conclusion that can be drawn is that plenty of information about higher education is available to potential entrants, but it is often seen as being too general and overly complex. Therefore, efforts by higher education institutions and government need to take this into account when developing their information, recruitment and guidance strategies. The strategies need to focus not so much on publishing increasing amounts of data on particular programmes and institutions, but more on general benefits and costs of higher education study for the person in question ('what is it like to be a student?' and 'what does it bring me in terms of improved employability and finance?'). If current students or 'higher education champions' provide such information, the policies seem to have more impact – particularly on higher education candidates from families under-represented in higher education. Potential students who have little contact with people who have recently had higher education experience will probably feel more at ease with this kind of soft (or some might say *hot*) information than with impersonal ('cold') information.

## 5. TUITION FEES AND PRICE SENSITIVITY

One might perhaps rather boldly state that the introduction of tuition fees is a means of 'empowering' consumers in higher education. The higher the fees students pay, the higher the benefits they expect to receive from the higher education provider. Fees therefore imply a direct client–producer relationship in higher education. Tuition fees also work as an incentive for students to behave efficiently, inducing them to make more conscious choices. So the fee levels and fee structures/mechanisms will, in combination with other factors, shape students' decisions (see figure 1). In this section we will look in particular at the first of the following three roles played by fees:

1. Fees enter the cost-benefit analyses made by students contemplating higher education entry.
2. Fees affect the liquidity constraints faced by individuals enrolling in higher education.
3. Fees contribute to students' debt aversion.

The role of fees in determining demand may be looked at from the student's perspective and the first issue that will come up in many discussions is to what extent do fees have a negative effect on the student's decision to participate in higher education. The presence of fees, however, also has a more positive side that arises when one looks at it from the perspective of the provider of higher education. Fees are a source of revenue for higher education institutions and, if the fee mechanism is shaped in a particular way, the revenues collected may serve to increase the range of choices and the capacity in the higher education system. This role of fees will, together with some of the other functions of fees, be discussed in the second part of this section. First we will treat in particular the demand side effects of fees – role No. 1 in the list above – drawing heavily from earlier work by this author (Jongbloed 2004). The other two roles are closely connected to the topic of student support – a topic which will be explored in the next section.

Before addressing the roles of fees, we define tuition fees as charges levied upon students, or upon students and their parents, that cover some proportion of the underlying cost of higher education (Johnstone 1998). Tuition fees are related to the institutional costs of instruction and are thus distinct from charges relating to the costs of student living, or maintenance – for example, room, board, laundry and transportation – even though such maintenance charges may also be levied upon students or parents by the institution if it operates dormitories and dining halls. If the tuition fee covers a relatively large proportion of educational cost and is not compensated for by means of student subsidies or tax expenditures, the degree of *cost sharing* is relatively high – private individuals bear more of the cost of higher education.

Turning to the role of fees in students' decisions, the immediate role of fees lies in signalling to consumers the (marginal or average) cost they are incurring when enrolling in a higher education programme. This encourages an economic (i.e. efficient) use of resources by consumers.<sup>4</sup> In higher education, due to the government subsidies allocated to the sector, the tuition fee charged to students cannot be regarded as a price in the true sense of the word, but rather as a *quasi-price*. Governments are heavily subsidising the provision of higher education, sometimes even offering higher education for 'free' (e.g. in Scandinavia, Germany, and many formerly socialist nations in Central and Eastern Europe).<sup>5</sup> Clearly, fully commercial providers and private arms of public providers are the exceptions to this rule and do charge a 'real' price. In general, though, our national higher education systems primarily consist of publicly funded providers that charge a flat (i.e. uniform) fee that often times is set by the government (or, rather, parliament).

Traditional human capital theory, built on rational economic decision making by individuals, models decisions that have more than just an immediate consumption purpose in the framework of a cost-benefit analysis. In order to estimate the profitability – the *rate of return* – of higher education investments, the individual weighs the benefits against the direct and indirect costs of education. The major direct costs are tuition fees and study materials like books and computers. The indirect costs consist of foregone earnings (the opportunity costs of studying). The benefits are higher expected future earnings and other improvements in career opportunities, as well as the consumption value of going on to higher education and

any other benefit gained from the schooling. Taking this cost-benefit perspective, a rise in (or the introduction of) tuition fees can be expected to have a negative influence on the students' investment (i.e. participation) in higher education.

The question is, however, whether in this broader picture of costs and benefits students actually react to changes in tuition fees. In other words, how high is the *price elasticity* of the demand for higher education? To what extent do higher tuition fees harm access, in particular, for students from lower socio-economic groups in society? This question is especially important now that many countries have seen the implementation of increased contributions that students have to make to the cost of their higher education. Countries where fees have increased steadily are the Netherlands and the Anglo-Saxon countries (the UK, Canada, Australia, the US and New Zealand). This rise in fees was justified by referring to:

- the private benefits of higher education;
- the need for the higher education sector to find alternative (and/or additional) resources;
- the relative priorities attached to other fields/sectors (e.g. health care) compared to higher education.

Therefore, in the financing options under discussion in many countries, student contributions are becoming an increasingly important issue. On the basis of empirical evidence on private rates of return to an investment in higher education, it may be argued that, next to the government (or taxpayers), students should make a contribution towards the cost of their education. Governments continue to fund higher education because of the externalities it produces for society in general. Students might be asked to contribute because of the private returns they enjoy in the form of higher lifetime earnings and other education-related benefits. Blöndal, Field and Girouard (2002) estimated that the average male private rate of return for a number of OECD countries lies around 12 per cent. Financial returns for successful students range from 6.5% in Italy, 7.5% in Japan, to 17.3% in Britain. The returns for women were slightly lower on average. Thus, graduates receive substantial monetary benefits from their degrees. Given the fact that higher education will also deliver non-financial (e.g. cultural) benefits, the estimates reported here would most probably be an underestimation of the personal gains received from having a degree.

The fact that students do well in the labour market, combined with the fact that students are more likely to come from privileged backgrounds, implies that efficiency as well as equity reasons may be brought forward to justify student charges. A no-charge system would be regressive; it would mean that public funding is redistributed from low income taxpayers to (future) high income taxpayers.<sup>6</sup>

So then if a tuition fee is justified, what is the elasticity of demand? For the European higher education systems, there are only a limited number of studies that contain insights into the effects of the rising private cost of higher education. Most of the available research on price elasticities originates in the US, a country where paying for higher education has a much longer history and thus a much longer time period over which data have been collected and analysed. Leslie and Brinkman

(1987) provide a meta-analysis on student price responses in American higher education, updated in Heller (1997). Their major conclusion, quoted by Vossensteyn and Canton (2001), is that students are responsive to prices and that – *ceteris paribus* – for every \$100 increase in tuition price one would expect the participation rate to drop by about 0.7% point. Vossensteyn and Canton (2001) state that for an average weighted tuition fee of \$3420 and a national higher education participation rate of 0.33 in 1982–83 (cf. Leslie and Brinkman 1987), this corresponds to a price elasticity of  $-0.73$ .

Other authors (Manski and Wise 1983; McPherson and Schapiro 1991; Moore, Studenmund and Slobko 1991; Gladieux and Hauptman 1995) add that particularly low income students are more sensitive to tuition price levels than higher income students. McPherson and Schapiro (1997, 1998) stress that, though enrolment rates for all racial groups have risen, the gap between the enrolment rates of whites and other racial groups has widened. Heller (1997) also shows this variation in price sensitivity among different racial groups. In addition, Kane (1995) shows that increases in net costs over time are related to decreases in enrolment rates for lower income students in the US. In contrast to this, evidence shows that increases in net cost did not inhibit enrolment for more affluent students. However, middle income students also seem to have reached a price threshold, particularly in the private sector institutions (Breneman 1994; Campaigne and Hossler 1998).

For the Netherlands, where government imposes the level and increase in tuition fees, the scarce studies on the price sensitivity of student demand include Kodde and Ritzen (1984), Huijsman et al. (1986), De Jong et al. (1990) and Canton and De Jong (2002). Among other variables, these time series studies try to establish the impact of tuition fees on student enrolment. Oosterbeek and Webbink (1995), using micro-data on secondary school leavers, found a statistically insignificant effect from tuition fees on student enrolment. Huijsman et al. (1986) reported an elasticity with respect to tuition fees of  $-0.003$ . This would imply that demand is fairly insensitive to the tuition fee level. De Jong et al. (1990) reported that economic variables hardly affect the decision to enrol in an academic programme. Bronneman-Helmers and Kuhry (1996) reported price elasticities in the range of  $-0.01$  to  $-0.1$ . A recent study by Felsö, Van Leeuwen and Zijl (2000) indicated that students are not likely to change their programme choice in cases where tuition fees were either increased or reduced by 454 (almost a third of the present day fee level). Finally, Canton and De Jong (2002) concluded that students are not responsive to tuition fees, but financial support, the college premium, and the foregone labour market earnings are important in the enrolment decision.

All in all, the Dutch evidence typically suggests that students hardly respond to tuition fee changes. This is in contrast to the findings in the US and UK studies. However, the Dutch studies suffer from an important drawback, namely, they do not take into account that, over time, governments have compensated for the increase in the tuition fee by a rise in the student financial support offered in the form of grants and loans. Whatever the cause, the low elasticity of student demand with respect to tuition fees makes sense from the viewpoint of the human capital model. The fees as part of direct education costs represent a very small component when considered

against the gain in lifetime income associated with an academic degree. Canton and De Jong (2002), however, do show a remarkable result in the sense that they report a positive elasticity of demand with respect to student financial support. This result may be useful in the debate on reform of the student support system. Options for reform recently proposed (CPB and CHEPS 2001) include the introduction of a student loan scheme with income contingent repayment rates, along the lines of the Australian Higher Education Contribution Scheme (HECS) and graduate taxes (Jacobs 2002).

Before turning to Australia in order to discuss the (absence of) evidence for tuition fees having an effect on student demand, we slightly change the perspective from the consumer to the provider of higher education. In doing so we stress some of the other roles of fees – roles that actually focus on ways and means of strengthening the role of consumers in higher education. Apart from the role of fees in rationing available supply across consumers and giving (quasi-) price signals to consumers, fees play a role in (see Jongbloed 2004):

- increasing income from students;
- increasing diversity in programme supply and delivery;
- increasing competition between providers;
- enhancing decision making by students on the basis of price-quality trade-offs;
- leading to a closer relationship between the student and the higher education institution;
- giving higher education institutions an outlet for expressing their circumstances, goals and opportunities.

The advocates of tuition fees stress the positive effects of fees. Some even go so far as to promote a fee system where the institutions instead of the government set fees. Fees – either regulated or deregulated – are assumed to increase efficiency, quality and – because of the extra revenues they bring in that can be used to subsidise students from under-represented groups – can even help improve access. If higher education institutions are free to set their fees (in a system of price discretion), tuition fees may bear a closer relationship to the different costs of providing different subjects, while allowing fees to reflect the different financial returns that students (once graduated) enjoy depending on the institution attended and subjects studied.

Australia is an interesting case for studying simultaneously the enrolment effects of introducing (and raising) tuition fees and the achievement of some of the positive effects listed here. There is a great deal of Australian research on the relationship between student contributions and student participation.

For regular (full-time Australian) students, the tuition fee that students pay is a charge that is levied through the HECS, introduced in 1989 (see Chapman 1997).<sup>7</sup> HECS was motivated by the sheer need to attract additional resources for the Australian higher education system in order to allow for further expansion in times of fiscal pressures. Under the HECS system, students contribute approximately a

quarter of the average cost of their training programme, either by paying up-front (at the point of entry into higher education) or by taking out a loan and deferring repayment (through the tax system) until after graduation. The important condition for the HECS system was that the private contributions should not harm access to higher education, particularly not for people from disadvantaged backgrounds. In particular, the deferred payment option in HECS meant that students who could not or did not want to pay up-front were allowed to pay later (as a graduate).

HECS was introduced as part of a larger package of funding reforms. Despite the strong arguments in favour of introducing fees, parliament and public opinion were very sceptical about it, fearing a worsening of access. However, the 'package deal' tactic of the Minister that included more public funds for universities did the trick. HECS applies to Australian and New Zealand students in undergraduate programmes (bachelors degree) and masters students in so-called *masters by coursework* programmes.<sup>8</sup> The level of the HECS rate is determined by the Minister for Education. The rate was indexed to the cost of living and rose to A\$2450 in 1996 (US\$1 is about A\$2). Until 1997, the HECS charge was the same across all subjects and all universities.

When paying the charge, the student has a choice of either paying up-front, attracting a discount on the HECS payment, or deferring payment until after graduation. The discount on up-front payment was originally 15% but was later raised to 25%. In 1997, about 29 per cent of students chose to pay up-front. In case students choose the deferred payment option, the Commonwealth (i.e. federal) government pays the charge for the students and the student incurs a debt that is repaid via the taxation system. The value of the outstanding loan is adjusted annually with the consumer price index to maintain the real value of the debt. Students who defer payment, therefore, receive an interest subsidy on their debt. The Australian Taxation Office administers the debt and collects repayments. The (at that time) innovative characteristic of HECS is that repayments are income contingent. Therefore, HECS sometimes is termed a system of income contingent loans.<sup>9</sup> In 1989 the income threshold for repayment was A\$27,700 per annum. At this level of income, graduates had to pay 2 per cent of their taxable income each year, with payments rising to 3 or 4 per cent at higher levels of income. These proportions have since been increased.

HECS is operationally distinct compared with conventional student loan schemes in most other countries which offer what are often called 'mortgage type' loans. The obvious difference is that in the case of mortgage type loans the repayments do not depend on former students' incomes. The difference between HECS and subsidised bank loan schemes of other countries is that the latter typically offer assistance to a minority of students, with eligibility depending on a range of factors, including family income and age (Chapman and Ryan 2002: 6). HECS has no eligibility criterion – it is offered to all prospective students. The third difference between HECS and other student loans systems is that HECS is only about the repayment of deferred tuition charges and not about the repayment of loans that cover the student's living expenses.

HECS brought in significant revenues for the Australian universities. In 2001 students provided over A\$800 million in terms of up-front payments and income

contingent repayments through the tax system. This is about 20 per cent of the total recurrent cost of higher education in Australia (Chapman and Ryan 2002: 10).

When a new (conservative) government came to power in 1996, HECS was reformed. Charges were increased substantially (by about 40% on average) and their structure changed, so that they varied by subject but not by university. Three fee 'bands' were created containing disciplines that attracted low, middle and high HECS charges. This new charging scheme can be characterised as a hybrid of a teaching cost-related system and an expected future earnings (i.e. private rate of return) system (Chapman 1997). As such, the most expensive tier not only included expensive courses like medicine, but also law, which is one of the cheapest subjects in terms of teaching costs. Other inexpensive programmes, such as economics and business, attracted a medium charge.

Turning to the effect of HECS on student participation, Chapman (1997), summarising a number of studies, claims that "the introduction of HECS does not seem to have had any discernible effects on the socio-economic composition of the student body" so that "there is no evidence of HECS diminishing access to higher education of the disadvantaged" (Chapman 1997: 749). Also, the 1997 changes to HECS hardly changed the rates of return and, as such, were unlikely to reduce the attractiveness of higher education (Chapman and Salvage 1997).

Andrews (1999) measured changes in the proportion of first year higher education students from relatively poor backgrounds. While the causes for lower participation rates for low socio-economic status (SES) groups are likely to be complex and include social, cultural and attitudinal factors as well as financial, he points out that for low SES groups HECS appears to have been a minor influence on decision making. Evidence for the lack of deterrent effect is seen in the fact that participation rates for low SES groups have not worsened since the introduction of HECS. Overall the number of undergraduates doubled between 1989 and 1998. While numbers may not have dropped, the general expansion and availability of funding to participate do not appear to have improved the socio-economic composition of the student population either. Vossensteyn and Canton (2001) in their review of studies that have evaluated the effects of HECS come to the same conclusion, stressing the role of non-financial factors such as values and attitudes in determining student choice.

One of the founding fathers of HECS, Bruce Chapman, presents the following summary of findings from research looking at the effects of HECS on access for the disadvantaged (Chapman and Ryan 2002: 13):

- a) the relatively disadvantaged in Australia were less likely to attend university even when there were no student fees. This provides further support for the view that a no-charge public university system (that is financed by all taxpayers) is regressive;
- b) the introduction of HECS was associated with aggregate increases in higher education participation;
- c) HECS did not result in decreases in the participation of prospective students from relatively poor families, although the absolute increases were higher for relatively advantaged students;

- d) the significant changes to HECS introduced in 1997 were associated with increases in the participation of individuals irrespective of their family wealth.

Summing up this section it can be concluded that the effects of fees are by no means only negative – there is only weak evidence for a discouraging effect on participation, while access opportunities and consumer power may in fact be strengthened.

## 6. STUDENT FINANCIAL SUPPORT

While the previous section was somewhat supportive of tuition fees this does not take away the need for government to guard access for those who are unable to pay for higher education. As already indicated, students from disadvantaged backgrounds may in fact be deterred by fees and student debt when deciding to participate in higher education or they may be discouraged from enrolling in the institution of their first choice. The poor may not be able to pay the fees required for some of the expensive courses.

According to human capital theory, students choose to go to university if the cost-benefit calculation they make shows that the benefits outweigh the costs. However, as stated in section 3, it is unlikely that prospective students will make training and career-related choices in a strictly rational fashion. Rather, they will make an approximate estimate of the costs and benefits of schooling, given that the costs and – in particular – the benefits are hard to predict. However, once they choose to enrol in higher education they will need to have the means to pay the fees, other associated out-of-pocket expenditures as well as their living costs. This means that they will only be able to enrol in a higher education programme so long as they do not face a liquidity constraint (or credit constraint – see Chapman in this volume).

The presence of a (substantial) tuition fee will add to the liquidity constraint students face. Therefore, the income position of the student – or his/her parents – may pose a barrier to the student undertaking a higher education career. When liquidity constraints are important, one would expect that parental income would have a positive impact on the enrolment decision. However, Oosterbeek and Webbink (1995) conclude from Dutch data that the effect of parental income on enrolment is not significant. Other authors have reached similar conclusions (cf. Shea 2000). This does not imply that the government has no role in alleviating credit constraints. In fact, the observation that liquidity constraints do not seem to be very important in the current situation could indicate that government intervention *is* effective.<sup>10</sup>

A widely used government instrument to protect access for individuals from low income families is to lower the price of educational services through subsidies, which alleviates the liquidity constraints and the need to borrow. Subsidies do not just lower the financial barriers but also increase the range of educational options that students can choose from. In other words, financial support for students is a way

of strengthening consumer choice in higher education. In many countries, changes can be seen in the student support system – changes that relate to the conditions for receiving financial support in terms of grants, scholarships, loans or tax benefits for the students' parents, as well as the conditions (interest rates, repayment speed) attached to the debt students build up when taking out loans. An extensive overview of the developments in this area will not be presented here; this topic will be left for others to discuss in this volume. The picture that emerges is that systems for student support in many countries enhance access but the financial risks associated with investment in human capital in particular affect the educational choices by students from less well-off families.

A student support policy that relies heavily on subsidies may not be very efficient: rich students also benefit from the subsidies, while the poorest students may still not be able to finance their studies. Therefore, some authors in this volume argue that a more equitable and efficient type of public action is to let the government provide student loans or to stand surety for student loans provided by commercial banks. One possible objection is that students with unfavourable social backgrounds are less willing to incur debts. Making repayment of debt income contingent may alleviate this problem (but also introduce other issues like a distortion of the labour supply decision and postgraduate education). Chapman takes up the topic of income contingent loans in his contribution to this book. Finnie (2004: 8) sums up the design features of student support packages as follows:

Loans should be used when the principal problem is the need to help students overcome credit constraints – that is, to help those who want to pursue advanced schooling be able to do so, whereas grants should be used when individuals need the cost-reducing (and net benefit-increasing) incentives grants embody to make them want to engage in higher education.

The remainder of this section will briefly discuss the outcomes of some empirical studies on the relationship between educational choices and student support.

Kane (1995), in a study already cited in the previous section, uses several sources of variations in grants in the US (between states, within states, before and after the introduction of the Pell grant programme) to measure the effects of aid on student enrolment. He finds no strong evidence of an effect of means-tested financial aid (Pell grant, allocated to low income groups) on enrolment rates of low income students relative to medium and high income students. An explanation for this could lie in the lack of information of low income families with respect to application procedures for the grant. Van der Klaauw (2002) uses a regression-discontinuity approach to measure the effects of aid on college enrolment on the East Coast of the US. Specifically, students are ranked according to a measure of ability, and a threshold in this ability level determines whether students will receive a grant or not. Van der Klaauw uses this discontinuity to measure the effects of aid on enrolment. He finds enrolment elasticities of around 0.86 for students eligible for financial aid and 0.13 for the others.

Based on the earlier presented findings that the 'price sensitivity' of student demand is concentrated among low income students, McPherson and Schapiro

(1997) conclude that policies that call for cross-subsidisation among students, such as the *high tuition–high aid* strategies, make sense from the viewpoint of economic efficiency (although targeted student support by the government would be a better policy instrument). The high tuition–high aid strategy comes down to a situation where richer students pay a substantial part of the costs of education. This revenue is partly used for providing tuition discounts to poorer students. Notwithstanding this practice, there have been considerable increases in net tuition for low income students, leading to a growing gap between enrolment rates for high income and low income students and to an increased concentration of low income students in the least costly institutions and programmes (Duffy and Goldberg 1998). Low income groups have become concentrated in public, low-status community colleges, contributing significantly to the growing stratification evident in the US higher education system.

McPherson and Schapiro (2000) address the substantial increase in direct costs for US students and the substitution of student grants by loans. In analysing the phenomenon of the highest enrolment figures coinciding with the highest levels of cost, McPherson and Schapiro point to the fact that the increase in enrolment is not uniform across all groups. While participation is growing for all groups in absolute terms, relative enrolment levels are changing. This is evident in the enrolment trends for both income and ethnic groups and evidence of this is presented in the study by Kane (1995). The econometric analyses by Kane (1995) and McPherson and Schapiro (2000) seem to support the conclusion that the ‘price sensitivity’ is concentrated among low income students.

There is growing concern in many countries about the effects of increasing levels of student debt on participation in higher education. This is where we touch on the issue of *debt aversion*, defined by Finnie (2004: 12) as “situations where individuals are unwilling to take out loans to finance their post-secondary schooling even though they know the schooling represents a good investment and it could be facilitated by the loans in question”. What the US research suggests is that the disincentive effects of higher tuition costs and loan debt are linked to class position, but the relationship between the two is complex. It is not simply the case that low income students are ‘debt averse’ as is suggested in some literature. This view is not borne out by research data that show there is little difference in loan take-up rates between social classes once enrolled in higher education.

In research carried out for the Department for Education and Employment in Great Britain, Callender and Kemp (2000) found that levels of borrowing, rather than borrowing per se, were associated with a student’s social class. Those eligible for the highest level of means-tested non-repayable government maintenance grants, that is, students from low income households, had the highest levels of borrowing. This is a not unexpected finding given their likely familial financial resources. Debt aversion was found among all students, but most frequently among students enrolled for short courses (less than one year), students living at home with their parents, and Asian students (Callender and Kemp 2000: 79). A report commissioned by the New Zealand Parliament, referring to another British research report (Connor and Dewson 2001), goes so far as to conclude that:

although the research literature alludes frequently to incurring debt as a negative factor in decisions to participate, there is little research to suggest that this actually relates specifically to lower social class groups (Connor & Dewson, 2001, p.15). Debt aversion as an explanation for lower rates of participation would appear to be somewhat out of date (Education and Science Committee of the New Zealand Parliament 2001: 57).

In addition to some students being debt averse, however, the New Zealand Committee's report states that students are effectively deterred by the up-front costs of higher education, both in terms of tuition and living costs. If this is the case, the availability of student loans to fund higher education will not have the effect of encouraging enrolment from low income students. The obstacle for these students to overcome in order to enrol is the cost of tuition and/or living expenses, not merely the prospect of incurring debt (Education and Science Committee of the New Zealand Parliament 2001: 15).

Whether such a subtle conclusion is justified cannot be answered here. More research into student choice and student attitude towards debt is needed. Recent research from the UK (Callender 2003) does indeed provide evidence that those most likely to be deterred by the financial disadvantages of student loans were from the lowest social classes, and especially students from the lowest social classes expressed concerns about borrowing, debt and repayments. However, Connor and Dewson (2001) show that concerns about the ability to afford the cost of study are only one issue in a range of factors that discourages students from entering higher education. The other factors are (1) the uncertainty about the future benefits of higher education; (2) not having enough information about the costs of higher education and the student support system; and (3) uncertainty about the likelihood of being able to earn income during term-time. What this list of issues points to is a stronger and more concerted effort by all parties concerned to communicate more effectively about the present and future costs and benefits of higher education programmes. Financial instruments are only one type of policy instrument to strengthen student choice and access to higher education. 'Educating' individuals with regard to the benefits of higher education, correcting their attitudes towards borrowing, and giving them information to prevent them from overestimating their debt burden would have to go hand-in-hand with the use of grants and loans to encourage access.

## 7. STUDENT-CENTRED FUNDING

Strengthening consumer demand can also take place by means of introducing a *demand-driven funding* system for the public funding of higher education institutions. The institutions' budget would then be tied to the number of students they manage to attract. Shifting financial resources from institutions to students, for instance by means of a *voucher* system, would give more financial power to students and strengthen their position *vis-à-vis* the providers of education. The advantages of demand-driven funding are believed to be the increased responsiveness of education providers to their clients. However, there are also some risks attached to it. This section briefly discusses the advantages and disadvantages of demand-driven funding.

Increasing client orientation in higher education is based on the belief that publicly financed and heavily regulated systems such as higher education are naturally inefficient because students cannot effectively influence how the providers of higher education serve them. An important means by which students can make their demands heard is their *exit strategy*. By withdrawing from the higher education system or the higher education institution, or in other words by voting with their feet, students send out signals to providers about their preferences. However, it has to be acknowledged that, once students make their choice for a particular programme or institution they often will find it costly to revise that decision. Strengthening consumer choice nevertheless calls for a change from a supply-driven provision towards a demand-driven provision of higher education, implying that the customer is setting ‘things in motion’. Presently, the funding of higher education in many countries takes place by means of allocating grants to higher education providers. A funding model that is based on *individual learning accounts* or that allocates a restricted number of *vouchers* to students would place more emphasis on the demand side. Demand-driven funding is based on the idea that consumer sovereignty is more useful than producer sovereignty. Consumer sovereignty, however, presupposes that consumers (students) have access to reliable information and they can understand this information. Clearly, there is a role for government here, not only through contributing to the funding of higher education and other training (lifelong learning) options, but also by regulating the degree of competition, promoting access, assuring quality and removing barriers to learning for people in disadvantaged situations. This connects closely to the topics discussed in the previous sections of this chapter.

For higher education policy a demand-driven funding model could mean that the funding of higher education is based on a voucher model (Jongbloed and Koelman 2000). Students (or prospective students) would receive a bundle of vouchers (or entitlements) from the government to buy educational services from higher education providers. Instead of the government allocating subsidies directly to the providers of education, the government would channel the subsidies through the students. To secure their funding, higher education providers therefore will have to compete for students and consequently it is believed they will shift their focus from satisfying government bureaucrats towards the needs of their customers. Thus, a voucher scheme contains incentives to strengthen student choice and competition.

The list of potential advantages and disadvantages of vouchers provided in table 1 is based on the extensive academic literature on vouchers and provides an overview of the main arguments that have been put forward.

Most of the evidence for the effects of vouchers originates from the US and refers especially to the compulsory education sector. When considering vouchers as a means of financing *higher education*, one has to be aware that different arguments apply to higher education compared to compulsory education. In compulsory education the rationale for vouchers would be to increase freedom of choice, by enabling parents to use the vouchers to obtain education for their children from a wider range of public and (recognised) private educational providers. For higher education the all-important goal is not so much increasing the freedom of choice. The challenge for higher education is to facilitate and increase the possibilities for

students to design and plan their own, custom-made programmes. This would be much less relevant in primary education, where programmes are much more pre-structured and the possibility to switch schools is less acceptable for pupils. Especially in today's knowledge-based economy, higher education no longer is the last stage in a period of schooling, as specialised knowledge quickly becomes outdated. There is a growing need for lifelong learning and differentiation in education and training. Therefore, custom-built training programmes, flexible learning routes and part-time (or cooperative) training will have to be facilitated. Due to the different character of postsecondary education compared to compulsory education, more possibilities exist to let students put together their programmes in a kind of 'shopping mall' fashion. The policy goal of strengthening choice and consumer sovereignty therefore can be regarded as more relevant for post-compulsory education than for compulsory education.

*Table 1. Advantages and disadvantages of vouchers*

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"> <li>• strengthening student choice</li> <li>• strengthening responsiveness to customers</li> <li>• increase in diversity of educational services (both in delivery methods and range of programmes)</li> <li>• strengthening flexibility in learning routes</li> <li>• increase in efficiency of provision</li> <li>• increase in quality of provision</li> <li>• increase in private contribution to cost of education ('topping up' the voucher)</li> <li>• greater opportunities for lower income families and minorities</li> </ul>	<ul style="list-style-type: none"> <li>• inability of clients to assess information on the quality of education</li> <li>• geographical factors will limit choice</li> <li>• over-subscription will require rationing (selection) and favour high-income families</li> <li>• high administrative complexity (and costs)</li> <li>• need for government regulations to protect subjects, individuals, quality and equity</li> <li>• large variations in enrolment and funding may lead to under-utilisation of capital and insecure jobs for lecturers</li> <li>• programmes with high cultural value but with small enrolments will be forced to close</li> <li>• if used to the full, vouchers lead to additional government expenditures</li> </ul>

Source: Jongbloed and Koelman 2000: 28

Indeed, vouchers potentially would be a worthwhile way of financing higher education because they would enable students to make their own choices with respect to educational provider, programme and mode of study. However, there is hardly any practical evidence of vouchers being used in higher education<sup>11</sup> although

recent policy initiatives in Australia and the Netherlands have shown that governments are considering the introduction of *learning entitlements*.<sup>12</sup> For the most part, however, one has to rely on theoretical arguments when proposing to introduce vouchers. Further, as is the case in compulsory (or primary) education, it is good to clearly state the goals one has in mind when suggesting changes to the funding system. If the aim is to have institutions compete for students, one has to bear in mind that vouchers are not the only approach to competition and – because different voucher models exist – vouchers would be accompanied by different degrees of government regulation. Barr (1998) concludes that it is a huge mistake to think that a simple-minded voucher model (higher education institutions compete for students; those who attract large numbers flourish, those who fail to attract enough students do not survive) is the only approach to competition. He argues that “vouchers should be thought of as a continuum, from 0 per cent constrained (‘law of the jungle’) to 100 per cent constrained (‘pure central planning’) or anywhere in between” (1998: 352). Policy makers should consider a variety of constraints in choosing their position on this continuum:

- Protecting *subjects*. Some courses (e.g. classics) need special protection, others need less protection. This can be arranged by tying some vouchers to specific subjects.
- Protecting *institutions*. For reasons of regional balance it could be necessary to tie vouchers to universities in particular parts of the country.
- Protecting *individuals*. There are good reasons to offer larger vouchers to students from low income families.
- Protecting *quality*. One of the best arguments in favour of competition is that competition creates a strong incentive for higher education institutions to offer quality to their students. Nevertheless, at the same time, it is important to protect standards, for example, by monitoring quality and publishing the results.

A large part of the regulation in these areas, however, would also be present if the funding of higher education took place in the traditional way, which is through directly allocating grants to providers. Nevertheless Barr (1998) concludes that vouchers allow governmental intervention to foster both educational and distributional objectives. The degree of competition is a political matter with different possible policy answers.

To end this section we conclude that demand-driven funding implies that institutions face a lower level of stability in their resources. While advantages are found in the degree of responsiveness to students this implies that at the same time institutions may be tempted to follow a very commercial, business-like strategy that neglects the social and cultural effects of students’ and providers’ choices.

## 8. WIDENING THE RANGE OF CHOICES

Access to higher education first and foremost is determined by the requirements students have to fulfil in terms of prior education (i.e. level and subjects studied). On top of that, the providers of higher education can set other conditions for entry – some select their students on the basis of grade point average or entrance examinations. Government regulation determines whether public institutions are allowed to select their students. Entrance restrictions may also come in the shape of a given quantity of available student places determined by government. Such capacity restrictions often exist for high cost programmes like medicine and performing arts. Other cases where such a ‘*numerus clausus*’ exists may be found in programmes where the government feels the future labour market can absorb only a given number of graduates.

The range of choices available to (potential) students is also an important factor determining consumer choice and access to higher education. For qualified individuals, the freedom to choose may be restricted for several reasons. Kaiser and De Weert (1994) distinguish the following types of policy-related restrictions that affect access to higher education:

1. entry restrictions (for students *and* providers of higher education);
2. structural reforms (in higher education *and* secondary education);
3. incentives (financial incentives: student support *and* funding mechanisms).

Examples of the first type of regulation are *numerus clausus*, the setting of quota, and selection of students. These are restrictions on entry that are the outcome of government planning and centralised (as opposed to market-type) steering approaches. In countries like Australia and the UK, governments (or funding councils) are making funds available for institutions to maintain a given capacity in terms of student places. Sometimes the capacity is justified by referring to labour market needs. Institutions, on their part, select qualified candidates for the available places on the basis of selection criteria like grade point average, SAT scores or entrance examinations. Weighted lotteries are in place in the Netherlands to ration the available supply of student places for programmes like medicine and dentistry.

Structural reforms in the education system may take place either inside or outside the higher education sector. Introducing bachelors and masters degrees, or abolishing a binary divide that exists between universities and polytechnics, are examples of the first. Reforming the curriculum of secondary education, for instance to prepare individuals for taking up a higher education programme, is an example of a change taking place outside the higher education sector that affects student choice.

Incorporating financial incentives in the higher education system is a means of restricting or encouraging a particular type of behaviour on the part of higher education providers or students. This instrument is related to the topic discussed in the previous section (on funding mechanisms) and the topic of student support (section 6).

Both the first and second types of instruments lead to the question of whether government or the provider of higher education is better informed than students about the future needs of the labour market and how these would have to be translated into fixed capacities or (school and college) curricula. However, governments will try to prevent an excess or a shortage of graduates not just because of its labour market projections (which may be incorrect – as we all know, manpower planning exercises have a bad reputation), but also because it feels that public funds will have to be allocated efficiently. The justification for funding a fixed capacity or, alternatively, funding on the basis of student demand will often depend on political trade-offs and ideologies (e.g. belief in the market).

Connected to the latter argument is the goal of encouraging competition between providers in order to strengthen student choice. Injecting market forces into higher education by allowing more institutions to enter the higher education market would enlarge the choice set for students. An example of such a policy is establishing a level playing field, on which all accredited (or recognised) providers face the same conditions for providing degree programmes and enjoy equal conditions and opportunities to receive public funding. This would stimulate competition. In higher education, the supply of accredited educational programmes is characterised by extensive government intervention. The government subsidises institutions for (some of) their educational programmes, and regulates entry of institutions to the sector and behaviour of the institutions in the market (e.g. through accreditation of educational programmes). This intervention may be justified by market failures, but it also may lead to problems.

The obvious effect of restricting entry is that students would only have a limited choice between programmes – in terms of programmes with different duration, combination of working-learning or educational methods. Such a monopolistic situation limits the freedom of choice for students. Moreover, it provides higher education institutions with weak incentives to attract students, and thus to provide high quality at low prices. Stronger competition may improve the incentives for institutions to differentiate and to reveal information about the differences between programmes. On the other hand, stronger competition has some potential downsides as well. These are primarily due to the special characteristics of education. For example, the quality of education may be hard to observe by students and competition may increase the incentives to abuse this lack of knowledge. This takes us back to the availability of reliable information to enhance the transparency in the market and to enlarge the possibility for students to make their choices partly dependent on the observed differences between institutions (section 4).

The choice set of students may also be enhanced by extending the possibilities for students to attend single courses at other institutions. This may enhance the possibilities of new entrants in an educational market to attract students, and fasten the pace of innovation in the market as well as the pace at which information about new educational providers becomes available. Connected to this issue, the portability of student support is a subject that needs to be addressed when student mobility and flexible learning pathways are a policy goal. Along the same lines, a more equal playing field may be established by changing institutional funding mechanisms towards a student-driven funding system. We have already discussed

this option in the previous section. If part of the budget for institute funding is transferred to *vouchers*, targeted at students who currently enrol in publicly funded institutions, the discrimination between publicly funded and non-funded institutions would be diminished. Vouchers would then be allowed to be spent at either publicly funded or recognised private institutions.

Finally, one has to acknowledge that extending the study opportunities for students and encouraging more competition between providers do not start from a 'green fields' situation. If a more level playing field is created, the actual situation in the education market will hardly be characterised by equal conditions for all providers. Some providers have received government funding for decades and have built up a strong reputation and sound financial base, whereas new providers face high start-up costs and start from scratch. This probably calls for a careful monitoring of the effects of widening the choices for students and opening up the higher education market to new providers.

## 9. CONCLUDING OBSERVATIONS

While there are a number of ways and means available to policy makers to enhance consumer sovereignty, a lot is not known about the effectiveness of the instruments for strengthening consumer orientation in higher education. This does not prevent us from making a number of concluding observations in this section.<sup>13</sup>

Regarding the role of government we have to say that while governments would like to see students making well-informed – purely rational – choices, there is evidence that leads us to believe that students in their study choice decisions hardly make use of labour market information. Often, they will make a choice that can only be understood as being 'subjectively rational' or 'rational in retrospect'. This implies that the government will have to take this into consideration when trying to influence student choice. The government thus will have to create the conditions that allow students to make their own individual decisions, supplying potential students with information on various aspects of educational programmes, programme quality and available career options. That information will need to be provided in a way that appeals to students in the sense that students will be able to connect it to their own situation and preference. Here, the Internet would seem to be an ideal medium, allowing an interactive communication between an individual and a database that can be searched on the basis of user-defined profiles.

Rankings that show the relative position of an institution in terms of quality and available facilities would seem to be a useful instrument here. However, there is not a lot of evidence showing that students make use of rankings and league tables in their study choices. Making the rankings multidimensional might increase their value for users. Education has a multitude of aspects that relate to quality – some of them may be part of the student's preference ordering.

However, more importantly, governments may try to encourage secondary education institutions to pay attention (either in the curriculum, or the student guidance/counselling service) to the importance of critical thinking and defining one's own preferences and ambitions. Reflecting on study and career choices

nowadays is an ingredient of the programme in many a secondary school – not just in the year of graduation. Students will need to have the capacity to deal with the overload of information in society. This calls for government policy, not just in the area of information provision and student guidance, but also in the area of the curriculum and choice of subjects offered to students in secondary education.

If the evidence of students making ‘less than optimal choices’ is strong – and the number of students switching programmes, dropping out or taking a long time to graduate certainly point in that direction – then there may also be a reason to make adjustments to the curriculum in higher education. A possibility worth considering might be to ‘broaden’ undergraduate (bachelors) programmes. This amounts to offering students in a particular programme the possibility of studying topics that are not confined to narrow specialisations within a given discipline, to give them a taste of the broad spectrum of options within (or perhaps even across) disciplinary boundaries. At first glance, this policy implies a restriction of the choice options available to students. However, later on in their educational career, students would be better informed about follow-up programmes and about their own capabilities and interests.

Yet another option is to differentiate the length of the programme. This again gives students the opportunity to make up their minds as they go – taking up further study and striving for additional diplomas if they wish to do so, or giving them the possibility to enter the labour market. An issue that needs attention is the status of the various types of certificates students receive and how these are perceived in the labour market.

Offering a broader range of study modes would also create more options for students, for instance offering them the possibility to combine working and learning (the dual learning mode). This would also give ‘under-informed’ students a less risky taste of higher education. Governments can encourage the provision of such programmes by means of regulation (accreditation) and financial incentives (funding, student support).

Student support is another instrument that affects student choice. The income position of students (or their parents) clearly translates into the range of choices available to them and how they perceive the (financial) risks of going to college. The level, targeting and form of student support all affect student choice. The debt students build up if they take out a loan combined with the mechanism in place for repaying that debt are known to be important factors in the study choices made by students, with different effects for the different socio-economic groups in society.

On the topic of the introduction of demand-driven financing mechanisms to strengthen student choice we concluded that voucher funding is attractive from a theoretical point of view, but needs to be accompanied by a great deal of regulation if it is to be put into practice. Funding models where students receive learning entitlements or vouchers provide incentives for students to make good decisions. However, other forms of funding, with student demand – instead of governmental capacity planning – driving the budgets of institutions might be considered as well.

Institutional budgets consist not just of public resources but also of private, fee-based income. And there are strong arguments that can be brought forward for introducing fees. Introducing fees in combination with a demand-driven system of

funding creates a market system. Universities decide on fees and the number of places offered and students make trade-offs on the basis of information about costs (fees, foregone income) and benefits (educational experience, programme quality, future income, employment opportunities). A system like this relies only on a minimal degree of government intervention. The government decides on public funding (either per student place or for the system in total), but leaves total funding to the market (Barr 1998).

Mentioning markets immediately forces us to look at the role of government in monitoring the outcomes of the market. In the previous section attention was paid to the issue of ‘regulated competition’ and level playing fields. If the choice set of students is to be broadened and institutions need to be responsive to student demand, there are arguments to allow more providers to enter the education market. The role of government would be to regulate the degree of competition (e.g. through cartel agencies), guard quality and transparency (e.g. through accreditation) and facilitate information provision (e.g. through accessible web-based information) – using the motto ‘competition where possible, regulation where necessary’.

All in all, several policy options for increasing choice and consumer sovereignty are available. This chapter has merely given an overview. Other chapters in this volume will shed some light on their relevance and effectiveness in a number of national higher education systems.

## NOTES

- 1 See Gayle, Berridge and Davies (2003) for a recent overview of studies into the determinants of demand for higher education.
- 2 If that were the case then one must question why an economics student would want to pay in excess of \$30,000 per year at Harvard University in the US so that he/she could enrol in a 700-student class on ‘introductory economics’. In fact, Harvard social sciences departments are known to have one of the highest average class sizes among the elite private universities in the US.
- 3 A degree of quality recognition is already present in regulations that require recognised higher education providers meet, as well as maintain, government-set regulations on who is entitled to legitimately grant academic degrees.
- 4 Although critics of fees put forward that in the presence of (substantial) fees, student choices will be increasingly driven by financial motives at the expense of intrinsic motivation.
- 5 Of course, we know that there is no such thing as a free lunch. Somebody eventually will have to pick up the bill.
- 6 The alternative, a fully privatised higher education sector, implies that society places no value at all on the externalities generated by the sector. This position would be difficult to justify also.
- 7 The chapter by Chapman in this volume also discusses in brief the HECS system.
- 8 *Masters by research* students and PhD students are not part of the HECS regime and fall under the research funding system. Foreign (i.e. overseas) students have to pay a cost-covering fee.
- 9 Please note that it is not the loan that is income contingent, but the repayment. This makes the system resemble a *graduate tax* system. However, the name graduate tax is not correct. In fact, HECS is a system of fees and loans with income contingent repayments.
- 10 See the contribution by Chapman in this volume.
- 11 The exceptions being the GI Bill in the US and a facility that for some time existed in the UK for the field of vocational education and training.
- 12 We will have to wait and see what the true rationale for introducing learning entitlements will be: (1) a means of allowing more flexibility in a student’s educational careers; or (2) a way of limiting the public funds invested in a student’s training by putting a cap on the value and use of the individual entitlements.
- 13 Much of this section is based on Jongbloed et al. (2004).

## REFERENCES

- Andrews, L. *Does HECS Deter? Factors Affecting University Participation by Low SES Groups*. Canberra: Department of Employment, Education, Training and Youth Affairs, 1999.
- Barr, N. *The Economics of the Welfare State*. 3<sup>rd</sup> edn. Oxford: Oxford University Press, 1998.
- Becker, G.S. *The Economic Approach to Human Behavior*. Chicago: The University of Chicago Press, 1976.
- Blöndal, S., S. Field and N. Girouard. "Investment in Human Capital Through Post-Compulsory Education and Training: Selected Efficiency and Equity Aspects." OECD Economics Department Working Paper No. 333. Paris: OECD, 2002.
- Breneman, D.W. *Liberal Arts Colleges: Thriving, Surviving, or Endangered*. Washington DC: The Brookings Institution, 1994.
- Bronneman-Helmers, H.M. and B. Kuhry. *Maatschappelijke ontwikkelingen en deelname aan het hoger onderwijs*. Rijswijk: Social Cultural Planning Bureau (SCP), 1996.
- Callender, C. *Attitudes To Debt. School Leavers and Further Education Students' Attitudes to Debt and Their Impact on Participation in Higher Education*. London: Universities UK, 2003.
- Callender, C. and M. Kemp. *Changing Student Finances: Income, Expenditure and the Take-up of Student Loans Among Full- and Part-time Higher Education Students in 1998/9*. Research Report No. RR213. London: Department for Education and Employment, 2000.
- Campaigne, D.A. and D. Hossler. "How do Loans Affect the Educational Decisions of Students? Access, Aspirations, College Choice and Persistence." In Fossey, R. and M. Bateman (eds). *Condemning Students to Debt, College Loans and Public Policy*. New York: Teachers College Press, 1998, 85–104.
- Canton, E. and F. de Jong. "The Demand for Higher Education in the Netherlands, 1950–99." CPB Discussion Paper 12. The Hague: CPB Netherlands Bureau for Economic Policy Analysis, 2002.
- Chapman, B. "Conceptual Issues and the Australian Experience with Income Contingent Charges for Higher Education." *Economic Journal* 107 (1997): 738–751.
- Chapman, B. and C. Ryan. "Income Contingent Financing of Student Charges for Higher Education: Assessing the Australian Innovation." Centre for Economic Policy Analysis Discussion Paper No. 449. Canberra: Australian National University, 2002.
- Chapman, B. and T. Salvage. "Changes in Costs for Australian Higher Education Students From the 1996/1997 Budget." In Sharpham, J. and G. Harman (eds). *Australia's Future Universities*. Armidale, NSW: University of New England Press, 1997, 49–74.
- Connor, H. and S. Dewson. *Social Class and Higher Education: Issues Affecting Decisions on Participation by Lower Social Class Groups*. Research Report No. RR267. Annesley, Nottingham: Department for Education and Employment, 2001.
- CPB and CHEPS. *Higher Education Reform: Getting the Incentives Right*. The Hague: SDU, 2001, <http://www.cpb.nl/nl/pub/bijzonder/29/>.
- De Jong, U., H. Oosterbeek, J. Roeleveld, C.N. Teulings and H.D. Webbink. *Wel of Niet Verder Studeren?* Beleidsgerichte Studies Hoger Onderwijs en Wetenschappelijk Onderzoek No. 26. Zoetermeer: Ministry of Education, Culture and Science, 1990.
- Duffy, E.A. and I. Goldberg. *Crafting a Class: College Admissions and Financial Aid, 1955–1994*. Princeton: Princeton University Press, 1998.
- Education and Science Committee of the New Zealand Parliament. *Inquiry into Student Fees, Loans, Allowances and the Overall Resourcing of Tertiary Education*. Wellington: House of Representatives, 2001, <http://www.clerk.parliament.govt.nz/content/28/i2c.pdf>.
- Felsö, F., M. van Leeuwen and M. Zijl. *Verkenning van Stimulansen voor het Keuzegedrag van Leerlingen en Studenten*. SEO Report No. 545. Amsterdam: Stichting voor Economisch Onderzoek, 2000.
- Finnie, R. "Student Financial Aid: The Whys, Whens and Hows of Loans and Grants." Working Paper. Kingston, ON: Queen's University, 2004, <http://www.utoronto.ca/president/04conference/downloads/Finnie.pdf>.
- Gayle, V., D. Berridge and R.B. Davies. *Econometric Analysis of the Demand for Higher Education*. Research Report No. 472. London: Department for Education and Skills, 2003.
- Gladieux, L.E. and A.M. Hauptman. *The College Aid Quandary: Access, Quality, and the Federal Role*. Washington, DC: The Brookings Institution, 1995.

- Hanson, K. and L. Litten. "Mapping the Road to Academia: A Review of Research on Women, Men, and the College Selection Process." *Review of Higher Education* 19 (1982): 179–198.
- Heller, D.E. "Student Price Response in Higher Education: An Update to Leslie and Brinkman." *Journal of Higher Education* 68.6 (1997): 624–659.
- Hossler, D., J. Schmit and N. Vesper. *Going to College, How Social, Economic and Educational Factors Influence the Decisions Students Make*. Baltimore: The Johns Hopkins University Press, 1999.
- Huijsman, R., T. Kloek, D.A. Kodde and J.M.M. Ritzen. "An Empirical Analysis of College Enrollment in the Netherlands." *Economist* 134.2 (1986): 181–190.
- Jacobs, B. "An Investigation of Education Finance Reform: Graduate Taxes and Income Contingent Loans in the Netherlands." CPB Discussion Paper No. 9. The Hague: CPB Netherlands Bureau for Economic Policy Analysis, 2002.
- Johnstone, D. Bruce. "Tuition fees." In Torsten, Husén, Neville Postlethwaite, Burton R. Clark and Guy Neave (eds). *The Complete Encyclopedia of Education* (CD-ROM). Oxford: Elsevier Science Ltd, 1998.
- Jongbloed, B. "Marketisation in Higher Education, Clark's Triangle and the Essential Ingredients of Markets." *Higher Education Quarterly* 57.2 (2003): 110–135.
- Jongbloed, B. "Tuition Fees in Europe and Australasia: Theory, Trends and Policies. In Smart, J.C. (ed.). *Higher Education: Handbook of Theory and Research*, vol. XIX. Dordrecht: Kluwer, 2004, 241–309.
- Jongbloed, B., F. Kaiser, C. Salerno and E. de Weert. *Een Helpende Hand in Studiekeuze Land. Studiekeuze informatie producten vergeleken in enkele Westerse hoger onderwijsystemen*. Beleidsgerichte Studies Hoger Onderwijs en Wetenschappelijk Onderzoek vol. 109, Ministry of Education. The Hague: DeltaHage bv, 2004.
- Jongbloed, B. and J. Koelman. *Vouchers for Higher Education? A Survey of the Literature*. Enschede: CHEPS, 2000.
- Kaiser, F. and E. de Weert. "Access Policies and Mass Higher Education, A Comparative Analysis of the Use of Policy Instruments in Seven Countries." In Goedegebuure, L. and F. van Vught (eds). *Comparative Policy Studies in Higher Education*. Utrecht: Lemma, 1994, 165–195.
- Kane, T.J. "Rising Public College Tuition and College Entry: How Well do Public Subsidies Promote Access to College?" NBER Working Paper 5164. Cambridge, MA: National Bureau of Economic Research, July, 1995.
- Kodde, D.A. and J.M.M. Ritzen. "Integrating Investment and Consumption Motives in a Neoclassical Model of Demand for Education." *Kyklos* 37 (1984): 598–608.
- Leslie, L.L. and P.T. Brinkman. "Student Price Response in Higher Education." *Journal of Higher Education* 58.2 (1987): 181–204.
- Manski, C.F. and D.A. Wise. *College Choice in America*. Cambridge, MA: Harvard University Press, 1983.
- McPherson, M.S. and M.O. Schapiro. "Does Student Aid Affect College Enrolment? New Evidence on a Persistent Controversy." *American Economic Review* 81.1 (1991): 309–318.
- McPherson, M.S. and M.O. Schapiro. "Demand for American Higher Education: Prices, College Attendance, and Federal Policy." In Miller, P.W. and J.J. Pincus (eds). *Funding Higher Education: Performance and Diversity*. Canberra: Department of Employment, Education, Training and Youth Affairs, 1997, 13–23.
- McPherson, M.S. and M.O. Schapiro. *The Student Aid Game, Meeting Need and Rewarding Talent in American Higher Education*. Princeton: Princeton University Press, 1998.
- McPherson, M.S. and M.O. Schapiro. "Financing Lifelong Learning: Trends and Patterns of Participation and Financing in US Higher Education." *Higher Education Management* 12.2 (2000): 131–156.
- Meijers, F. *Arbeidsidentiteit: studie- en beroepskeuze in de post-industriële samenleving*. Alphen aan de Rijn: Samson H.D. Tjeenk Willink, 1995.
- Menon, M.E. "Information Search as an Indication of Rationality in Student Choice of Higher Education." *Education Economics* 12.3 (2004): 267–283.
- Moore, R., A. Studenmund and T. Slobko. "The Effect of the Financial Aid Package on the Choice of a Selective College." *Economics of Education Review* 10.4 (1991): 311–321.
- Oosterbeek, H. and D. Webbink. "Enrollment in Higher Education in the Netherlands." *Economist* 143.3 (1995): 367–380.
- Shea, J. "Does Parents' Money Matter?" *Journal of Public Economics* 77 (2000): 155–184.
- Simon, H.A. "Rationality as a Process and as a Product of Thought." *American Economic Review* 68 (1978): 1–16.

- Teixeira, P., B. Jongbloed, D. Dill and A. Amaral (eds). *Markets in Higher Education: Rhetoric or Reality?* Dordrecht: Kluwer, 2004.
- Van der Klaauw, W. "Estimating the Effect of Financial Aid Offers on College Enrollment: A Regression–Discontinuity Approach." *International Economic Review* 43.4 (2002): 1249–1288.
- Vossensteyn, Hans. *Portability of Student Financial Support. An Inventory in 23 European Countries. Main Report*. Beleidsgerichte Studies Hoger Onderwijs en Wetenschappelijk Onderzoek vol. 106. The Hague: DeltaHage bv, 2004.
- Vossensteyn, Hans and E. Canton. "Tuition Fees and Accessibility: The Australian HECS." In CPB and CHEPS. *Higher Education Reform: Getting the Incentives Right*. The Hague: SDU, 2001, 53–66.

D. BRUCE JOHNSTONE

## COST-SHARING AND THE COST-EFFECTIVENESS OF GRANTS AND LOAN SUBSIDIES TO HIGHER EDUCATION

### 1. INTRODUCTION

In 1985, I was granted a three-month sabbatical: a reward for having survived five financially challenging and sometimes stressful years as president of the largest comprehensive college in the State University of New York system. More than a little of the stress had stemmed from my incessant sparring with the governor and the New York State Legislature over whether tuition fees – then approximately 15 per cent of the underlying costs of instruction, but generously means-tested so that low income families were spared virtually any out-of-pocket tuition-related expenses – should rise as our underlying institutional costs rose. The source of our rising per-student costs, as is the case in higher educational institutions everywhere, was almost entirely due to increases in faculty and staff compensation, which in the State University of New York was negotiated exclusively by the governor of the state rather than by the presidents of the system's colleges and universities or even by our State University of New York system trustees. But the governor – in this instance supported politically by most of the New York State Legislature – refused to countenance even the modest increase that would have maintained our already low (by US standards) tuition fees at a constant percentage share of these increasing costs (for which the governor, in effect, was mainly responsible). Furthermore, neither the governor nor the state legislature had any intention of increasing the state taxpayer's contribution by enough even to maintain the state's current 'share' of these underlying cost increases – much less by enough to make up for that part of the parent/student share that was now missing due to their refusal to increase tuition fees.

The end result was an annual reduction in our budget, manifested most seriously by reductions in the number of both faculty and support staff (including the termination of several tenured faculty in one relatively overstaffed department) and by the continual substitution of lower-cost part-time and adjunct faculty on the lines vacated by departing higher-cost regular faculty. We were becoming, by the narrow measure of costs per student, clearly *cheaper*, although in light of what I believe to have been some deterioration in the quality of our output, it was less clear that we were becoming more *efficient*, or more *productive*.

In the arena of student finances, the effective freeze on tuition fees, in light of the prevailing inflation, had the effect (probably unintentional) of actually *decreasing*

the *real* cost of higher education to the family. For most families, this was undoubtedly a pleasant surprise as most of their other expenses were going up, although it had no discernable effect on the enrolment behaviour of the students. But quite unexpectedly – and for the most part also unnoticed and even unacknowledged – this freeze on tuition fees also had the completely unintended consequence of actually *increasing* the cost of the State University of New York to the lowest income commuting students. This anomalous consequence was due to the fact that the (then) very low New York State tuition fee had the effect of reducing their federal means-tested grants, even though the New York State means-tested grants would have shielded them from having to bear any part of a tuition increase – but which increase would then have increased their federal grants.<sup>1</sup> These experiences, more than any theory or taught lesson, brought home to me the degree to which governmental policy, both wittingly and unwittingly, can have the effect of shifting an essentially given (and inevitably increasing) per-student higher educational cost burden among parents, students, taxpayers and institutions.

As I had been writing, lecturing and testifying about higher educational finance, and especially about student financial assistance (i.e. grants and loans), for many years at the time of my serendipitous sabbatical, I decided to use this break from my presidential duties to study how the rising costs of higher education were being met elsewhere in the world. More specifically, I was interested in learning how these costs were shared (and perhaps even being shifted) among taxpayers, parents, students and philanthropists in several European countries in which I assumed the underlying costs of undergraduate (or *first degree*) instruction as well as the underlying costs of student living were similar to each other and to the counter-part underlying costs in the United States. From this interest and opportunity emerged the first published study (Johnstone 1986) to employ the construct of *cost-sharing* to analyse in a comparative perspective those institutional and governmental policies that distribute the underlying instructional costs of higher education among the principal bearers of these costs.

## 2. COST-SHARING IN HIGHER EDUCATION

The construct of *cost-sharing* – as elaborated by Johnstone (1986, 1999, 2002, 2003, 2004a), and as treated or implied by many of the chapters in this volume – posits that all of the costs of higher education, including the institutionally borne plus the privately borne costs of instruction as well as the costs of food, lodging and other expenses of student living, are borne by four principal parties:

1. *governments* or *taxpayers*: via direct or indirect taxation, including the taxation of business or deficit spending induced inflation, both of which are passed on to the general taxpayer/consumer (see following paragraph);
2. *parents*: via savings, current income or borrowing;

3. *students*: via savings (generally limited), current earnings (generally part time, either during the instructional terms or during the summer break) or borrowing; and/or
4. *philanthropists*: via endowments or current contributions.

Two other parties are sometimes viewed as contributing to, or bearing a portion of, the underlying costs of higher education: *businesses* and *universities* (or other higher educational institutions) themselves. However, the actual *incidence* of business or institutional contributions – that is, who or what is ultimately paying – is less clear. For example, a tax on business, whether on its value added or on its profits, can be viewed as no different from any other cost of production – necessarily recovered through the price of the product or service produced and thus also not fundamentally different from a sales or consumption tax paid directly by the general consumer/taxpayer. This is in no way to denigrate the usefulness, even the necessity, of taxation of businesses or enterprises (including taxes on the profits of professional services such as law firms or medical practices). Such taxes are generally easier both to impose and to collect (or harder to evade) than are taxes imposed directly on people, whether on their incomes, assets or purchases. Taxes on business thus tend to hide, or at least diminish, the political visibility and apparent opportunity costs of the size of the public sector, including the extent of public transfer payments. (This may be viewed as a virtue or a liability depending on one's satisfaction or dissatisfaction with the current distribution of income and/or division of the economy between public and private sectors.)<sup>2</sup> It is unlikely that a modern industrialised economy could sustain a sufficient public sector without taxes on businesses. However, the notion, which is so dear to much of the political left, that a government can raise taxes only on business and thus impose the additional burden only on the wealthy or even only on the owners of the business is almost certainly a misconception. This is why the cost-sharing paradigm used in my works (e.g. Johnstone 1986, 1999, 2002, 2003, 2004a) stresses the four *direct* bearers of higher education costs as taxpayers, parents, students, and/or philanthropists, and incorporates those who ultimately pay the taxes levied on business, as well as the general consumer whose purchasing power is confiscated by deficit spending induced inflation, under the more general rubric of *taxpayers*.<sup>3</sup>

The case of colleges or universities themselves bearing a share of the costs of higher education is even more complex. Clearly, institutions of higher education can themselves give grants, generally on the basis of academic promise or on any other student attribute highly valued by the institution including (particularly in the United States) ethnic minority status or athletic talent. However, as we are mainly interested in public institutions of higher education, such institutions can only provide such grants, or price discounts, as their predominant base of taxpayer support supplemented by tuition makes possible – in which the main bearers of the burden of costs remain taxpayers, parents and/or students. In the case of privately supported (i.e. mainly tuition fee dependent) institutions able to grant scholarships, or *price discounts*, these grants can be viewed in one of two very different ways depending on the institution's financial health and the depth of its applicant pool. In the case of an institution that is either wealthy enough or has such a deep and affluent applicant

pool as to be able to charge a premium from those families able to pay (and, in fact, those characteristics seem to apply to the same few fortunate institutions), such grants can be viewed less as *grants* in the eleemosynary sense of institutional philanthropy and more as *institutional expenditures* incurred to enhance even further the quality of the student body and therefore the value of the product – and thus not unlike any other institutional expenditure such as more or better faculty, equipment or physical plant that might be incurred to maintain or enhance an already favourable market position.

However, in the case of the majority of institutions that are neither so well endowed nor blessed with such deep and affluent applicant pools, institutional grants, particularly in private, tuition fee dependent institutions, are more appropriately viewed as price discounts, designed to maximise net tuition revenue in the face of a limited pool of applicants willing and able to pay the full posted tuition fee, or sticker price. Such discounts should thus be viewed not so much as institutional expenditure per se (with a true opportunity cost, or foregone alternative) as a case of profit-maximising discriminatory pricing (Bowen and Breneman 1993).

For the above mentioned reasons, the cost-sharing paradigm seems most analytically useful when restricted to the four main bearers of higher educational costs: taxpayers (or consumers, who are essentially the same individuals), parents, students and philanthropists – with the first three being by far the most significant to public institutions of higher education.

### 3. THE RATIONALES FOR COST-SHARING

The rationales for cost-sharing, while politically and ideologically contested, emerge from well-accepted elements of economic and public finance theory (Woodhall 2002). The basic rationale for the student bearing at least a portion of the costs is that he or she is presumed to be a recipient of much of the benefits. These benefits may be in the form of higher lifetime earnings, which have been demonstrated empirically in countless studies, but may also be in a number of essentially non-monetary benefits such as higher status, access to jobs of greater prestige and desirability (even if not always of greater earnings), a greater array of ‘lifestyle options’ and the like. If the greater lifetime earnings are not sufficient demonstration of the benefits, the sheer fact that both students and parents do in fact contribute great amounts of money everywhere – in the form of tuition fees where they are required, but also in the form of privately borne living costs and instructional expenses, as well as the opportunity costs of foregone or deferred employment, where tuition fees are not yet required – constitutes striking evidence of the perceived private benefits of higher education.

In much of the world, the benefits that are assumed to rebound to students-as-children seem to yield a considerable perceived private benefit as well to parents. In many countries and many cultures, this contribution may be considered a *benefit-as-obligation* – a recognition of a continuing parental financial responsibility (with certain limitations) for students-as-dependent-children. But leaving aside the contested issue of whether students (at least for their first degree) are properly

considered to be financially dependent children or financially independent young adults, parents almost certainly derive personal satisfaction and status from the higher educational successes of their children. Throughout the world, as evidenced by the flourishing of tuition-supported (i.e. paid for mainly by parents) private higher education wherever public education is supply-constrained, parents are demonstrating the personal benefit to them of sharing the costs of their children's higher education.<sup>4</sup>

In much of Continental Europe as well as most of the developing and so-called transitional (post-Communist) worlds, the direct instructional costs of higher education are still paid for mainly by government; that is, tuition is still free. However, parents and/or students perceive themselves to be bearing a significant share of the costs in the form of living expenses and the opportunity costs of foregone earnings. In such cases, a policy of cost-sharing, which implies a change to a greater portion of the cost burden borne by parents and/or students, requires a rationale for the shift: in essence, what has changed?

The principal rationales behind the shift of costs toward greater shares being paid for by parents and/or students are three: efficiency, equity and necessity. The *efficiency* rationale assumes a greater efficiency when there is a charge, or a price, that reflects (even with a substantial taxpayer subsidy) at least some of the real costs and the trade-offs involved in the provision of higher education. In contrast, higher education that is free or *nearly free* to the student/family 'consumer' – that is, entirely or mainly subsidised – can, by virtue of this degree of subsidisation, be either over-consumed (i.e. more of it partaken of than is optimal either for the student or the society, or too much partaken of by students with insufficient capacity to benefit) or can be consumed with insufficient academic effort – presumably in all cases at least in part because there is too little cost incurred by either the student or his or her family and therefore too little foregone by the participation. Some tuition fee is thus assumed to induce both a harder working student and one who is more perceptive and demanding as a higher educational consumer. Also, universities and other institutions of higher education, at least in theory, have an incentive to hold down their tuition fees in order to attract and retain the student (or the parent), thus presumably becoming more efficient (or at least less wasteful), and more inclined to provide what the student is likely to want (which is likely to be what potential employers want).

The *equity* rationale posits that higher education everywhere is partaken of disproportionately by the children of the well-to-do. This is not only because of their greater purchasing power, but because they have the advantages of greater *cultural capital* from family, secondary school and peers, which in turn imparts not only knowledge itself, but academic ambition and the methods and habits of effective study. At the same time, the so-called *free* higher education is, of course, actually paid for by the average taxpayer/consumer, in large part by taxes and price increases that are either proportional, at best, or even regressive. Thus, the equity rationale construes totally free higher education as the average taxpayer subsidising the well-to-do – arguably a perverse redistribution of income and status from the poor or the middle class to the wealthy.

The third and possibly most compelling case for greater cost-sharing in the transitional countries of the former Soviet Union and Eastern and Central Europe, as well as much of the developing world, may be the much simpler-to-grasp – and also much less controversial – rationale of *necessity*: the sheer need of higher education for alternative (i.e. non-governmental) revenue. This necessity, in turn, emerges from the long and compelling queue of competing public needs (even in Europe) as well as the political pressure for tax relief. The increasing pressure on public revenues in Europe and the other highly industrialised nations is exacerbated by the effects of *globalisation*, which increases the predilection, as well as the ability, of taxable individuals and enterprises to escape to lower tax venues. And as alternative or supplemental non-governmental revenue becomes increasingly imperative, a substantial portion of this non-tax revenue is going to have to come from parents and students in the form of tuition fees and other forms of cost-sharing.

Thus, the total elimination or avoidance of all potentially privately borne costs of higher education – that is, an assumption of all the expenses associated with higher education by the government or taxpayer – is nowadays generally assumed to be neither appropriate, efficient, equitable nor economically feasible. Totally free higher education, including free tuition, food, lodging and pocket money, may have been common (even if not necessarily good policy) in some countries in the past when the higher education of a small elite was more politically acceptable, and especially in countries with command economies where governments were able to claim massive shares of a nation's total production without the working population feeling directly taxed.<sup>5</sup> But when the number of young adults legitimately aspiring to a higher education approaches or even exceeds one-half of the traditional university age cohort, and when governments are forced openly to tax (and public expenditures thus acquire transparent *opportunity costs*), and when public and private resources alike are allocated more and more according to markets – all of which are becoming increasingly the case in the advanced industrialised countries – such massive and rapidly increasing expenditures borne entirely by governments, or taxpayers, becomes all but impossible. In short, cost-sharing in some form can be found in virtually all countries in a complex stew of tuitions and other fees (or the absence thereof), differential pricing of institutions and academic programmes, and across-the-board and targeted grants, including the effective grant components of student loans. All of this serves differing policy objectives that are not necessarily articulated, nor always even intended, and that are frequently ideologically and politically contested – to which topic we now turn.

#### 4. COST-SHARING AS POLICY

In its literal meaning, *cost-sharing* is merely a statement of economic fact: that the costs of higher education are shared among the four parties as described. In its more common usage, however, the term is used to signal a policy-driven shift in the distribution of the cost burden. In a European context, where tuition fees have been small or more often non-existent, *cost-sharing* generally refers to an intended shift

of at least some instructional costs from an overwhelming reliance on governments or taxpayers to being shared as well (or even more) by parents and students.

Thus, cost-sharing in Europe is most often thought of as the introduction of *tuition fees* to cover part of the costs of instruction, particularly in countries where there were heretofore no such fees and where all of the costs of instruction were presumed to be appropriately borne by the general taxpayer. The UK at the turn of the 21<sup>st</sup> century was the only European country with more than a nominal tuition fee, having introduced tuition fees in 1998 – although Scotland in 1999, followed by England, Wales and Northern Ireland with target dates in 2006, are to shift from *up-front* tuition fees – mainly borne by parents – to *deferred* fees – borne by students in the form of income contingent loans (see Woodhall and Richards in this volume). The Netherlands and Portugal also have small (by North American standards) tuition fees, and Ireland and Italy have other fees that are commensurate with these relatively nominal tuition fees. In 2001, Austria became the first (and through 2004 the only) German-speaking country to introduce nominal tuition fees for all students (Marcucci and Johnstone 2003; Ziegele in this volume).

Where tuition fees have been quite accepted in the public sector, as in the United States and Canada, a shift in the direction of even greater cost-sharing can take the form of very sharp tuition increases: that is, considerably in excess of the increases in the costs of instruction, thus allowing and partially compensating for reductions in the shares borne by governments or taxpayers. (It is noteworthy – as well as to the considerable distress of those of us in US public universities – that the political outrage toward tuition increases in US public higher education is almost entirely toward the fact that such increases so frequently exceed the percentage increase in the cost of living generally, even when the principal contributors towards steep increases are the failures of the state tax funds even to keep up with the rising underlying costs).

Cost-sharing as policy can also take the form of introducing *user charges* to cover more of the costs of lodging, food and other expenses of student living that may have hitherto been borne substantially by governments (taxpayers) or tax-supported institutions. This is especially the case in the late 1990s in the *transitional*, or post-Communist, countries including Russia and the countries of Eastern and Central Europe. Most of Western Europe (i.e. excluding the former Communist countries of Eastern and Central Europe) has traditionally assumed living expenses to be the responsibility of other-than-the-taxpayer. However, there are significant differences both in the underlying rationale for, as well as in the resulting policies and practices of, cost-sharing depending on whether these living expenses are assumed to be the responsibility primarily of parents, as in Germany, France and most of Southern Europe, or primarily the responsibility of the students themselves, via universally available loans as in Scandinavia (a policy issue to which we will return in section 7, below).

Other smaller and less noticeable shifts in the prevailing patterns of cost-sharing – almost always in the direction of shifting burden from the taxpayer to the parent and/or student – may include:

- the elimination, diminution or even the *erosion by freezing* of maintenance grants (as in the UK in the late 1990s, or most of Eastern and Central Europe since the collapse of the Communist regimes);
- the introduction of *non-instructional fees*, such as application, graduation, student services, technology or access fees, with the advantage of not having to call them *tuition* fees (as in Ireland, Italy and France, and the public universities of many US states);
- the charging of fees only to students who fall behind in their expected progress toward the degree (as in some of the German Länder);
- the restriction of *governmental sponsorship*, or *tuition free* higher education, to an academic elite, thus preserving the pretence of free higher education while being able to charge tuition fees to students who fall below a certain cut-off on the official entrance exams (a practice common to many post-Communist countries); or
- an improvement in student loan recovery rates via an increase in the rate of interest or an improvement in collections (where student loans are integral to higher education financing, as in the US and Canada).

The construct of cost-sharing in all of its many forms is thus a useful tool to examine how governmental (and to some degree, institutional) policies affect and alter the distribution of cost burdens and the consequences of such alternative policies both to the financial health of institutions and to the attainment of political and social goals of greater and more equitable higher educational participation and accessibility. At the same time, all countries shifting higher educational costs from governments and taxpayers to students and parents recognise the need to compensate in some way for these increasing privately borne costs, including the student and/or parent share of the costs of instruction (i.e. whatever fees there may be for tuition, registration, books or any other general or special aspect of the instructional programme) as well as the student and/or parent share of food, lodging, travel and all other living expenses that are not borne by the government or by some sort of philanthropy. It is these private, parent- and/or student-borne expenses that may constitute financial barriers to higher education, particularly among students or potential students from lower income families, poorer secondary schools, ethnic and/or linguistic minority backgrounds and cultural milieus less familiar with, or less supportive of, academic success – all characteristics associated in most countries with disproportionately low enrolment, persistence and success in higher education. And while financial barriers only partly explain these nearly universal disparities, their lessening is a stated priority for most countries. Thus, we must turn to another policy paradigm – *alternative forms of governmental (taxpayer) subsidisation* – to understand more completely the effect of cost-sharing on higher educational access, persistence and success.

## 5. GOVERNMENTAL SUBSIDISATION AND STUDENT FINANCIAL ASSISTANCE

The total financial expenses associated with higher education may be considered as consisting of three types: (a) the costs of instruction (e.g. faculty and staff compensation and most equipment and utility costs) that are incurred mainly by the institutions of higher education; (b) those additional costs of instruction such as books and travel that are generally paid privately (as opposed to being paid to the college or university) but that are nonetheless integral to the student's instruction; and (c) the costs of student living, which cover food, lodging and all other expenses necessarily incurred in day-to-day living but which, for the most part, would be incurred whether the individual were enrolled as a student or employed full-time – and which in either case vary substantially depending mainly on whether the young adult is living at home with parents or living independently.

This perspective gives us a way to consider those costs of higher education (including the costs of student living as well as the direct costs of instruction) that may be borne by governments or taxpayers as of one or more of several quite different forms, including:

1. direct institutional support of public universities and other higher educational institutions that lessens or eliminates the need for privately borne tuition fees;
2. direct subsidisation (usually partial) of food, lodging, transportation and other expenses that similarly lessens (or, in theory, could even eliminate) the need for parental or student-borne expense;
3. governmental subsidies in the form of *grants* (non-repayable) to partially cover either (or both) the parental or student-borne costs of instruction (i.e. tuition fees) or the costs of student living;
4. direct and indirect governmental subsidisation of *governmentally sponsored student loan programmes*. Such subsidies, or *effective grants*, may be in the form or forms of (a) the subsidisation of interest, allowing the present value of the repayment stream to be less than the cost of money to the government or other lender; (b) various forms of repayment forgiveness, usually on the bases either of low earnings (e.g. as in income contingent loans) or in the form of workplace contingent repayment forgiveness, depending on the borrower's assumption either of a particular profession or willingness to practice in a particular venue; or (c) loan guarantees, with the taxpayer assuming the risks of non-repayment thus further lowering the necessary 'true' rate of interest to the borrower. The cost to the taxpayer of these forms of loan subsidisation – or conversely, the value to the borrower of these *effective grants* – will be less than the value of the loan itself as the draw on governmental subsidies is both only partial and also in the future. (Stated another way, a given dollar amount of subsidisation can support a greater dollar volume of repayable student loans than of non-repayable grants.);

5. indirect governmental subsidisation via the extension of certain forms of child allowances to families of students (i.e. to which the families would otherwise no longer be entitled); and
6. indirect so-called *tax expenditures* in the forms of, for example, exemption from taxation of interest earned on college savings accounts or the tax deductibility of certain tuition fee payments.

In theory – and especially when considered free from the *real world* complications of history, politics and already established policies – these governmental (taxpayer) subsidies can be considered as *trade-offs*. In other words, the total amount of possible governmental expenditure is viewed at any point in time as given, presenting the policy maker with alternative expenditures within a dollar constraint: for example, more institutional subsidisation and lower tuition fees for all versus lower institutional subsidisation, higher tuition fees and more targeted assistance for some. Similarly, we can in theory consider the alternative of targeted *grants* for limited numbers of students, or a greater volume of *minimally subsidised student loans* reaching more students for the same governmental or taxpayer obligation (in the case of loans, measuring the effective grants as the discounted present values of the streams of repayment subsidies). In fact, there is a very large and complex mix of policies making up the support of institutions and the support of students (and families), involving tuition fees, direct grants, so-called tax expenditures and various forms of loan subsidies. The focus of this chapter is on the theoretical cost-effectiveness of the two principal alternative forms of targeted governmental subsidisation – grants and loan subsidies – which are frequently in pursuit of policy aims other than, or at least in addition to, the policy objective of lessening of disparities in participation. We turn then to a consideration of the alternative purposes of these two targeted forms of governmental subsidisation: grants and subsidised student loans.

## 6. POLICY AIMS OF GRANTS AND LOANS

Governmentally devised and funded grants and loan subsidies, like other governmental expenditures, may be presumed to be given for some *public purpose or purposes* such as higher educational accessibility for low income youth, or the study of science and mathematics, or the encouragement of academic achievement or timely degree completion. Institutionally awarded and funded grants (or *price discounts*), on the other hand, may be presumed to serve *institutional* purposes, such as maximising institutional prestige or net revenue. The many purposes that may be advanced through different forms of financial assistance, both governmental and institutional, may be compatible or conflicting, intended or unintended.

For example, governmental or taxpayer-supported grants and loan subsidies (with which we are mainly concerned because of the public policy implications) can serve a variety of quite different public purposes, including:

- ‘filling in’ for the missing parental contributions (in countries where parents have officially expected contributions) for those parents who are poor (as measured, for example, by low incomes, few assets and other large non-discretionary financial obligations, such as other dependent children or unusually high medical expenses);
- providing even larger grants (i.e. larger than simply ‘filling in’ for an otherwise missing contribution) to low income or ethnic or linguistic minority or rural families in order to further encourage the children of such families to try higher education in order to reduce the persisting under-representation of such youth at all levels of enrolment, persistence and degree completion;<sup>6</sup>
- rewarding high levels of secondary school academic achievement, possibly out of a belief that grants, or scholarships, or prizes encourage more of such socially desirable behaviour;<sup>7</sup>
- rewarding high levels of academic achievement in the college or university – perhaps by requiring the maintenance of a certain level of academic achievement to keep the grant (or alternatively to keep the initial award of financial assistance a non-repayable grant rather than being converted to a repayable loan because of disappointing academic performance); or
- encouraging students to enter targeted fields of study that are deemed to be socially important – such as teaching, language study, social work, science or military service.

Institutional grants or price discounts (which may be called *scholarships*), in contrast, serve not public or social but *institutional* purposes. For example, institutional scholarships or price discounts may be targeted to the most desirable applicants to the university or college – whether they be the most brilliant, or most athletic, or most desirable or whatever other characteristic the institution wishes to attract. This is especially characteristic of those prestigious US private institutions with very large endowments and large infusions of annual philanthropy that enable them to afford the high cost of financial aid. The ‘buying of an optimal student body’ can also be exercised by a public institution, the leadership of which believes the expenditure required to ‘buy’ the most desirable entering class in a fiercely competitive academic environment to be as legitimate as other expenditures on the various indicators of academic quality such as a low student/teacher ratio, modern facilities or the best faculty.<sup>8</sup> These kinds of grants are essentially discretionary institutional purchases, having real opportunity costs in that some other institutional expenditure is foregone. It may be presumed that the institution benefits by such discretionary expenditures, but it is difficult to impart any wider social benefit to the occasion of institution *A* luring a particularly desirable student away from institution *B* because of a more generous merit scholarship.<sup>9</sup>

These discretionary discounts are conceptually quite different from the kind of price discounting that is carried on especially in the US by the very many private colleges for which price discounting, however garbed in the cloak of *scholarships*, is

in fact the only way to fill the class and maximise total fee revenue. Such discounting, as discussed in section 2 above, is really differential pricing in which there is little or no effective opportunity cost involved because without the discount there would be no enrolment and no tuition at all.

Most of these aims can be discerned in the shaping of governmental policies toward tuition fees, grants and loans, all within the formidable policy constraints of a country's history and traditions and also within the equally formidable limitation on total available governmental subsidisation (or, alternatively, the need for non-governmental revenue generation). Considering the major policy goal of access, or the removal of cost/price barriers to the participation of otherwise qualified youth from low income or other under-represented populations, there are critical policy questions that need to be answered.

## 7. POLICY ISSUES OF COST-SHARING AND GOVERNMENTAL SUBSIDISATION

As cost-sharing in some form may be found in virtually all of the advanced industrialised countries, frequently along with governmental subsidisation via grants and sometimes the *effective grants* of student loan subsidisation, policies must address at least the following seven issues.

First, *what, if any, is to be the officially expected parental contribution?* Is it to be for the cost of student living only, as in Germany, or for the cost of student living plus a portion of the costs of instruction via tuition fees, as in England and Wales (at least through 2004)? Or, as in Scandinavia, are parents officially expected to contribute neither to the costs of instruction (which are to be borne, rather, entirely by taxpayers) nor to the costs of student living (which are to be borne, rather, by students themselves via loans)? This is a very real issue in Europe, where a combination of tradition, culture, a generally longer university first degree and a somewhat older first degree student body (i.e. than in the US or the UK), in addition to the much greater political power of organised student unions (relative to the United States), have combined to buttress a sense that the university student ought to be treated more as a young adult than as a financially dependent child. To the degree that parents are considered by the state to be financially responsible for their children, as in Germany, it is considered appropriate for living costs only.

The notion that a first degree college or university student is appropriately to be considered a financially dependent child is worth billions of dollars in the US in the form of parental contributions to the costs both of instruction (i.e. tuition fees) and of student living – dollars that would otherwise have to assume even greater cost burdens from either the taxpayer or the student or both. An officially expected parental contribution creates political and technical complexities, such as how to deal with single parent families and what to expect/demand from a non-custodial parent, and the policies by which the student can become financially independent. Nonetheless, the financial stakes are significant, and a substantial diminution of the expected parental contribution – as appears as of 2005 to be happening in Britain – has consequences for the other parties of the cost-sharing paradigm.

Second – if there is to be an officially expected parental contribution: *At what levels of family income do such expected contributions begin and at what effective tax rate do the officially expected contributions increase as family incomes increase?* That is, what is the degree of burden, or the extent of the expected contribution per dollar of family income (after any means-tested grants or price discounts)? Or, conversely, what is the relative *generosity* or *severity* of the means-testing?

A third question – again necessary to answer if there is to be an officially expected parental contribution: *When, or under what circumstances, do the officially expected parental contributions officially end?* That is, when does, or when may, the student officially become financially independent of his or her parents and either expect the government to assist, or know that he or she is now expected to assume the cost burden without the officially expected financial assistance from the parents? The age of the student almost has to enter prominently into the resolution of this question, as does the length of the first degree and the degree of separation of the first from subsequent degrees. (The importance of this question is affected in Europe by the Bologna-driven shift toward a three- or four-year bachelors degree as the appropriate first degree).

A fourth question – again if there is to be an officially expected parental contribution with means-testing: *How should assets and savings be incorporated into the determination of these family means and the determination of the ability of the family to contribute to the student's costs of higher education?* More specifically, what is to be the treatment of – and thus the incentives for and against – *parental savings* for the express purpose of spreading the cost burden over time? (That is, what is the degree to which savings are effectively *taxed* along with current income – or conversely *shielded* from the calculation of family means, thus constituting an incentive to save without fear of losing grants or other subsidies that are means-tested?).

Fifth, *what, if any, are the expected student contributions*, whether in the form of loans or term-time earnings? Are these contributions explicit and official – as in Scandinavia, where the student is to bear the expenses of student living through generally available, governmentally sponsored student loans? Or are they mainly implicit – as in most of the European Continent, where loans are either unavailable or insufficient, and where the part-time employment option is increasingly common, yet largely unrecognised? If loans are to be an explicit and official part of the cost-sharing, are limits to be imposed on the extent of allowable borrowing – even if these limits put certain universities or certain programmes out of financial reach, and even if the students appear willing to borrow additionally?

Sixth – if there are to be generally available, governmentally sponsored student loans: *What is to be the extent of governmental subsidisation*, that is, the division of the amounts borrowed between a '*true loan*' (i.e. the discounted present value of the anticipated repayment stream) and the '*effective grant*' component of the loan (i.e. the present value of the stream of effective subsidies)? This question or issue is actually a sub-part of the larger question about the total governmental subsidisation. However, the degree to which loan subsidies can be hidden (e.g. as in the division of subsidies between in-school, grace period and repayment period interest rates) as

well as disguised further by the occurrence of loan subsidisation in the future and the complexities of discounting these values to the present in order for understanding and comparison all make it important to raise the question of loan subsidisation separately and more explicitly.<sup>10</sup>

Seventh – again if there are to be generally available, governmentally sponsored student loans: *What is to be the apportioning of the risk of loan default*, especially that portion of risk that is to be borne by the government or taxpayer as opposed to that portion to be passed on to parents or other required cosignatories, or to be borne by the banks or other private lenders? Many governments, especially in the developing and so-called transitional worlds, are reluctant to guarantee student loans because of the very high likely rates of default. However, such high rates also make it virtually impossible for there to be any generally available student loans without a governmental assumption of risk. In effect, virtually all student loan programmes in all countries that are truly *generally available* – that is, not available only to those students deemed to be low risk – require substantial participation of the government in the bearing of the risk of default.

Clearly, the establishment of tuition fees, grants and loans calls for a great many other policy decisions. These include, for example, whether tuition fees are to be established by the government or by the institution itself, or whether undergraduate tuition fees are to vary by institution or academic programme or to be uniform, or how governmentally sponsored student loans are to be repaid. In the matter of loan repayments, the government must determine whether the student loan obligations are to be repaid on a fixed or an income contingent repayment schedule, and in either case whether employers will be required to withhold the repayments along with income taxes and pension contributions or whether the repayments are to be made by the borrower to the lender as in other forms of debt. However, these are essentially *second order* issues, based on, or presuming, answers (if only implicit) to the seven questions presented above. For example, once the pool of governmental subsidies is determined, and whether it is to be allocated in the form of grants or in the form of the *effective grants* of loan subsidisation, the degrees of freedom remaining either in setting the interest rate on a conventional fixed schedule loan or in setting the percentage of earnings required for an income contingent loan are relatively few – and far less ultimately consequential than the more fundamental determinations of, for example, the permissible level of total governmental subsidisation or whether the needed non-governmental revenue should come from parents or students.

## 8. THE POLITICS OF COST-SHARING

Acknowledgment of the need and/or the appropriateness of some amount and form of cost-sharing is increasingly made, however reluctantly, by elected officials and other policy influentials, including many of those on the political left who are otherwise committed to large public sectors, generous transfer payments and the high taxes that are so implied. But the proper apportioning of higher educational costs among parents, students and taxpayers remains greatly contested, with much

political theatre. As noted, the most controversial in Europe has been the offset of some instructional costs by tuition fees that would shift a portion of the underlying cost-of-instruction from the general taxpayer to parents and/or to students. The UK implemented a tuition fee in 1998 that is still small by US standards but was more than a mere token (which term may better describe the tuition fees in the Netherlands, Portugal and most recently in Austria). But in all of these countries, the political and ideological controversy over tuition fees – and thus over grants and loans and the proper targeting of governmental subsidies – continues to rage (Johnstone 2004b).

Part of this controversy, at least in theory, should be amenable to resolution by research and the mustering of facts and evidence – such as the degree to which tuition fees actually inhibit the higher educational opportunities of academically able but low income youth, or women or ethnic minorities. However, much of the controversy, like other matters of political and ideological contention, is more about symbols. For example, higher education that is not only free but carries substantial additional cost-of-living subsidies is a particularly vivid symbol of the extensive sphere of public benefits so prized by the political left (and a symbol that is particularly and literally close-to-home for politically active students). And many (but by no means all) of those advocating tuition fees are portrayed as *neo-liberals*, who are assumed to be against most public spending, taxation, governmental regulation and taxpayer assistance to the ‘unworthy poor’ and whose policies are thus to be generally opposed. But this same tuition fee-free higher education is seen by many in the political centre and by most on the conservative right not only as an entitlement that is both overly expensive and likely to be over-consumed, but as an entitlement that is paid for substantially by the working middle classes and enjoyed predominantly by privileged students and self-serving professors (the latter including some whose poor teaching and irrelevant courses would, to their political critics, be even more unpopular if there were fees attached).

However, political controversy over cost-sharing, like most political controversies, is less over whatever policy seems currently to hold sway than over the perceived winners and losers in any proposed policy shift in the apportioning of these shares – and the purpose that is purported to be served by such a shift. Political reactions to the worldwide shift in cost burdens from governments and taxpayers to parents and/or students depend very much on the intended objectives and actual consequences of such shifts. For example, *more cost-sharing* (i.e. a shift in the direction of greater reliance on tuition fees) is much more acceptable to most of the political centre and the political left (indeed, sometimes even viewed as a positive good) if the added revenue goes toward, for example, an increase in:

- the quality of the education;
- the capacity of, and thus total participation in, higher education (and thus presumably in the number of those currently excluded); or
- revenue (from those able to pay) sufficient not only to increase quality and capacity of higher education, but also to increase *targeted* subsidies

to those currently excluded – for example, prospective students from the rural poor.

Clearly, such intended and actual consequences of a shift in the overall higher educational cost burden borne by parents and students are far more acceptable to the political centre and left than would be the same shift in the higher educational cost burdens, but for the avowed purpose merely to lower the burden on taxpayers generally, or especially for the purpose of lowering the higher marginal rates currently paid by the wealthy, or to allow tax revenues to be shifted into some other less generally accepted purpose, such as military adventures or higher salaries for politicians and government bureaucrats.

The political debates over tuition fees go far beyond the mere appropriateness of cost-sharing, whatever its intended objective. In the UK, for example, before and during the discussions of the government's 2003 White Paper (DfES 2003) and through the passage of the new higher education legislation in the summer of 2004 (Woodhall and Richards in this volume), there seemed to be at least four quite different political controversies, all of which are likely to continue to simmer in some form long after the supposed resolutions of 2004. As these same issues have their counterparts in most other OECD countries, a brief discussion can be instructive.

1. The first and still the most basic issue continues to be contention over the very appropriateness of tuition fees at all. Some of the old socialist 'hard left' still seek the abolition of tuition fees altogether, with the shift back to totally governmentally borne instructional costs to be paid for by increasing taxes on the rich and by eliminating politically unpopular public expenditures such as defence and military engagements.
2. Somewhat surprisingly, some of the 2004 political opposition to tuition fees came from the conservative right, which has historically been avowedly pro-tuition, but which prior to the passage of the legislation in 2004 was calling for an abolition of tuition fees. However, this stance seemed mainly to call attention to an altogether different political agenda, which was opposition to the Labour government's call for enrolment expansion – which some conservatives perceived to mean more academically less prepared students in the universities. The opposition's willingness to forgo the revenue from tuition fees may thus have been more of a symbol of its conviction that there are simply too many academically unworthy students pursuing bachelors degrees and its willingness to make up for the revenue loss from the abolition of tuition fees by a reduction in the size and costs of the public higher education establishment itself.
3. Meanwhile, much of the opposition from the left in 2003–04 was over the government's proposed variable, or *top-up*, tuition fees, with the government, joined by some of the conservatives and ultimately successful in passing the legislation, seeking higher tuition fees for the more costly (and the more academically and also more socially elite) universities, while much of the government's own left opposed the

likely accentuation of the already considerable differences in wealth, prestige and private benefits between the elite and the less-elite universities.

4. Finally, the government in an apparent effort to recapture some of its own left that opposes all tuition fees, and yet determined to preserve most of the needed fee revenue, was successful in its plan to abolish only *up-front* tuition fees – but to replace them with *deferred* fees, as in student loans. Thus as described in rich detail in Woodhall and Richard’s chapter in this volume and in Johnstone (2004a), the new legislation, while seeming to abolish tuition fees, actually abolished only the part of higher educational cost-sharing that is generally paid for by *parents* (and only those who could afford to pay, as the up-front tuition fee to be abolished is means-tested) and replaced the foregone revenue not with government revenue but with additional revenue from *students* in the form of additional debt (albeit to be repaid income contingently).

As these debates in the UK confirm, policy debates over tuition fees, student loans and other elements of higher educational cost-sharing, as well as the encroachment of market forces and other forms of privatisation within the academy, are parts of larger political and ideological contests involving the appropriate size of the public sector generally, the appropriate forms and generosity of transfer payments, the amount and form of governmental regulation required to look out for the public interest, and the social priorities revealed by the government in its decisions on to whom or toward what public purpose to allocate or reallocate resources.

## 9. THE COST-EFFECTIVENESS OF ALTERNATIVE GRANT AND LOAN SUBSIDIES

Within the context of country-specific politics and policy aims, we can consider the cost-effectiveness of alternative forms of targeted financial assistance: that is, grants or the effective grants of loan subsidies – either form targeted to some subset of students and/or families. At least ten quite different alternative forms of targeted governmental subsidisation can be discerned in the mature industrial economies that have been the subject countries of the Douro seminars:

1. direct grants based on the low income and/or assets of the family (i.e. *means-tested*);
2. direct grants based on other attributes (than parents’ income) associated with under-representation (such as ethnicity, gender or regional location);
3. direct grants based on the academic achievement or preparedness of the student’s secondary school experience (i.e. *merit*);

4. direct grants based on the academic performance of the student while in the college or university (i.e. *merit*);
5. direct grants based on special attributes or talents desired by the institution (such as athletic prowess);
6. ‘up-front’ loan subsidies (*effective grants*) in the form of low interest rates based on the low income of the borrower’s parents at the time of borrowing (i.e. *means-tested*);
7. ‘up-front’ loan subsidies (*effective grants*) in the form of low interest rates based on other ‘under-represented’ attributes at the time of borrowing;
8. ‘remaining debt forgiveness’ (*effective grants*) based on the borrower’s own low lifetime income (i.e. as in an *income contingent* loan contract);
9. ‘debt reduction’ (*effective grants*) based on academic performance while in college (i.e. *merit*); and
10. ‘debt reduction’ (*effective grants*) based on the borrower’s post-graduation choice of professional practice or venue (e.g. teacher practicing in urban or remote school).

These different types are shown in table 1, together with their presumed targets, their public or institutional purposes and some conjectures regarding their respective effectiveness. In some cases, the consideration of one form of subsidy over another is a matter of the choice of alternative policy goals. Where there is but a single goal, however (i.e. more equitable higher educational opportunities) the policy question is a simpler one of the cost-effectiveness of the alternative forms of governmental subsidy. For example, the use of means-tested grants in pursuit of expanded higher educational accessibility for hitherto underserved populations must be weighed against such alternative public expenditures as:

- means-tested lower tuition fees as a direct ‘entitlement’ upon matriculation – that is, without the separate processes of grant applications and awards;<sup>11</sup>
- a (slight) reduction in tuition fees for all or subsidised loans for all – that is, without the attempt at targeting;
- fewer, but very highly subsidised, loans for the same ‘targeted populations’ as the means-tested grants – that is, children of low income parents;
- a greater dollar volume of minimally or even unsubsidised loans available to the same ‘targets’; and
- subsidised loans ‘after the fact’ in the form of a forgiveness of remaining repayments for borrowers whose own ‘lifetime’ incomes turn out to be low – that is, governmentally subsidised income contingency.

It is against student loans – whether highly or minimally subsidised – that the cost-effectiveness of grants must mainly be measured. This is so because, at least on the surface, student loans, especially with minimal subsidisation, should be

substantially less costly to the government. Therefore, if grants and loans were found to be similarly effective in reducing or eliminating financial barriers to postsecondary enrolment (or in achieving any other public objective), then the preference ought to be for loans (and minimally subsidised ones at that) and for allowing the considerable governmental expenditures for a grant programme to be redistributed to subsidies for a much larger volume of student loans, with, at least theoretically, a greater impact in reducing the financial barriers to enrolment and success. If, on the other hand, there are demonstrable limitations to the use of loans in eliminating or at least substantially reducing enrolment disparities – such as the commonly alleged socio-economic, ethnic or gender-based *debt aversion* – then a diversion of public funds from grants even to the considerably more extensive volume of loans that are presumably supportable for the same amount of public dollars would probably not be cost-effective.

This policy conundrum cannot be ‘solved’ by a simplistic observation that students would quite universally (all else being equal) prefer grants to loans – any more than by the similarly simplistic observation that students would prefer low or no tuition fees for all over means-tested grants for some. The opportunity costs and trade-offs must be recognised and programmes of at least approximately equivalent present values compared. Thus, for example, a given present value dollar volume of grants, at least in theory, should be able to purchase a much greater volume of minimally subsidised loans, or a somewhat greater volume of highly subsidised loans (presumably available only to students of low income parents) or a roughly equivalent volume of income contingent loans, the effective grants for which would not go to borrowers whose parents were poor when they attended college, but whose own lifetime incomes turn out to be insufficient to pay off the students’ indebtedness within a reasonable repayment period at a reasonable percentage of income.

Such is the essence of economics: the (relatively) scientific study of alternatives and trade-offs. Unfortunately, the trade-offs between, for example, tuition fees, expected parental contributions, loan subsidies and grants are deeply confounded with politics and ideologies as well as with troubling gaps in our understanding of how alternative public expenditures affect the enrolment behaviours of what kinds of students.<sup>12</sup>

## 10. PUBLIC POLICY AND THE EXPANSION OF HIGHER EDUCATIONAL OPPORTUNITIES

This treatment of cost-sharing and the cost-effectiveness of grants and loan subsidies closes with the following observations, in rough order of centrality to the underlying public policy discussions surrounding the expansion of higher educational opportunities in Europe and most of the other OECD countries.

1. Elected officials to whom a democracy has delegated such ultimate decisions need to clarify, and if possible come closer together in, the value that they place on the elimination of financial barriers to postsecondary education. This is a relatively easy proposition to which

Table 1. *Forms of grants by target, purpose served and conjectures regarding effectiveness*

<i>Form of grant</i>	<i>Target</i>	<i>Public or institutional purpose to be served</i>	<i>Conjectures regarding effectiveness</i>
1. Direct grants based on low income or assets of family ( <i>means-tested</i> )	Financially dependent children of low income parents	(Public) reduce financial barriers, and enhance targeted student participation; (institutional) enhance diversity and thus value of education and degree	Especially applicable in cases where parents are officially expected to contribute to higher educational expenses of children. Requires cost-effective and verifiable system of means-testing
2. Direct grants based on student's <i>own</i> low income and/or assets	Adult or independent students with low income or assets	Reduce financial barriers, and enhance targeted student participation	Conceptually complex as almost <i>all</i> independent students have 'need', and the case for grants as opposed to loans may be less compelling
3. Direct grants based on other attributes (than parents' income) associated with under-representation (such as ethnicity, gender or regional location)	Under-represented ethnic minorities (in some countries, females)	Reduce financial barriers, and enhance targeted student participation	Likely effective in combination with low parental income, but increasingly politically controversial
4. Direct grants based on academic promise, or <i>prior</i> high school achievement ( <i>merit</i> )	High achieving secondary school students	(Public) enhance academic effort of many secondary school students; (institutional) enhance institutional prestige	Attractive mainly to political conservatives; questionable use of public funds as grants have minimal effect on student enrolment behaviour
5. Direct grants based on academic achievement <i>while in college or university</i> ( <i>merit</i> )	Students who achieve academically in college/university	(Public) enhance academic effort in postsecondary institution; may enhance timely progress to degree	Similar to No. 3; unclear how much influence such rewards have on grades

6. Direct grants based on special talent deemed beneficial to the institution	Students with, for example, athletic prowess or musical talent	No public purpose, but may enhance prestige of <i>institution</i> or <i>programme</i>	Little or no use with public funds; increasingly controversial with athletes in the US
7. <i>Up-front</i> subsidy ( <i>effective grants</i> ) to borrowers in form of low interest rates based on low income of family or other attributes associated with under-representation	Targeted students who nonetheless must borrow for some or all of the private costs	May reduce debt aversion and 'awkwardness' of defaults; may increase willingness to borrow	Expensive and 'trades off' with direct grants; not clear that interest rates factor into any debt aversion or willingness to borrow
8. 'Remaining debt forgiveness' ( <i>effective grants</i> ) based on borrower's own low lifetime income (in an <i>income contingent</i> loan contract)	Students whose low lifetime income makes it impossible to repay entire student debt – and are eventually released from further repayments	Reduces risk of unmanageable debt and possible 'debt aversion'; may increase willingness to borrow	Assumes workable income contingency; if so, then basing subsidies on <i>own low lifetime income</i> may be preferable to basing subsidies on <i>parents' low income at time of initial borrowing</i>
9. 'Debt reduction' ( <i>effective grants</i> ) based on academic performance while in college ( <i>merit</i> )	Good academic performance while in college	(Public) may enhance academic effort in postsecondary institution; may enhance timely progress to degree	Unclear whether academic performance responds to the 'prize' of debt reduction; may reward those who do not need rewarding
10. 'Debt reduction' ( <i>effective grants</i> ) based on borrower's postgraduation choice of professional practice or venue (e.g. teacher practicing in urban or remote school)	Students who practice targeted professions (e.g. nursing) or in targeted venues (e.g. inner city or rural venues)	Enhance numbers of the targeted professionals and/or those who will serve in less desirable venues	Unclear as yet how cost effective (compared to direct bonuses or direct income supplements)

to give politically requisite lip service. However, the virtually universal correlation of both low academic preparedness and low or ambivalent interest in postsecondary education with both low family income and linguistic and ethnic minority status makes successful participation in more selective institutions and the longer programmes of study less likely even with substantial compensatory means-tested financial assistance. To the degree that targeted subsidies are supposed to remove all financial barriers not merely to entry but to successful completion, it is almost certainly the case that effectiveness, however defined, will diminish very greatly at the margin: that is, more and more dollars will be required to induce the ill-prepared and the ambivalent to enter, persist, and finally to succeed. Thus, it is almost certainly also the case that none of the OECD countries are devoting enough public dollars to eliminate – or even to very substantially reduce – socio-economic and ethnic disparities in postsecondary educational participation. The very difficult and probably unanswerable – *but not merely rhetorical* – question to ask of our elected officials is: How much reduction of the ubiquitous disparities in postsecondary educational participation and attainment is realistically attainable within realistically conceivable public budgets?

2. Public officials must also come to some relatively common agreement on what would constitute the acceptable lessening not simply of the disparities in postsecondary participation and success, but in the even more inevitable (and arguably more insidious) disparities in the types of institutions and programmes. Thus, even when disparities in overall higher educational (or postsecondary) participation and even completion are lessened, great disparities may persist between matriculation at short-cycle, non-elite ‘access institutions’ (e.g. community colleges or private non-selective vocational institutions) versus classical universities and other selective, prestigious options, public as well as private.
3. There needs to be some policy concurrence (which does not have to mean *agreement*) on the appropriateness of an expected parental contribution toward the postsecondary education of the children – at least to the limit of the parents’ measured financial means and at least until the children have attained a certain age or a certain level of higher educational attainment (or otherwise may be reasonably declared to be financially independent). At one time, it was not considered necessary even to pose this question: the US, Canada, the UK, Germany, Japan and virtually all OECD countries (other than the Scandinavian countries) based their financial assistance on the bedrock of an assumed parental contribution (to the limit of financial means). This was never popular with students, who naturally long to be independent – particularly as long as the necessary revenue to meet all of their postsecondary expenses is forthcoming from the general taxpayer. But if this is deemed to be no longer financially possible, the alternative to

being considered a financially dependent child (for the purpose of establishing an appropriate parental share of postsecondary educational costs) is mainly the student himself or herself via loans. And while it may seem unlikely for a country to backtrack on an ‘officially expected family contribution’, this is precisely what happened in the UK in the summer of 2004 (to take place in 2006), apparently beguiled by the political ease with which Scotland adopted the Australian-type (HECS) plan for income contingent loans *in place of* ‘up-front’ parental contributions (Johnstone 2004a).

4. Both loan (repayable) and grant (non-repayable) programmes are built upon relatively precise estimates of the costs of instruction (i.e. tuition fees, books, etc.) plus assumptions about the necessary costs of student living (i.e. food, lodging and all other living expenses). These costs of student living assumptions, or reasonable estimates, are highly variable, depending on the local costs of food and rent, whether the student is living at home or independently, and whether the student in question is a traditional-age, financially dependent child or is an older, financially independent adult, possibly with his or her own dependent children and other significant family financial responsibilities. For the traditional-age, financially dependent child, a reasonable estimate of necessary living expenses can be made knowing only the residential status. For the independent student, however, living costs are exceptionally variable and will depend on individual circumstances that are not so easy to estimate. And because the necessary costs of student living for the independent student in virtually all cases will be higher (however calculated), the level of either loans or grants that are needed to remove the financial barriers to postsecondary attendance will also be higher – thus increasing the financial stakes to the government in the particular methodology used to establish this ‘reasonable estimate’ of living costs. Survey-based estimates of actual and reasonable living expenses (e.g. Cervenán and Usher 2004; Hemingway 2004) provide examples of an empirical approach to the question. But this problem – that is, the increasing proportions of independent students with higher, *but also highly variable*, living expenses – will be an increasingly critical challenge to financial assistance programmes aspiring to reduce financial barriers to postsecondary education. And the arguably increasing social need to bring not simply *entry*, but also *advanced level*, higher education into the financial reach of all compounds both the financial and the technical challenge.
5. How important to policy makers is the public aim of *financially healthy (public) colleges and universities* (however such ‘financial health’ is to be determined) – as opposed to the public aim of inducing, by public subsidy of some form, *a few additional (and thus almost by definition academically marginal) students into postsecondary participation*? If some (public) colleges and universities, presumably by their strong academic reputations, can compensate for insufficient governmental

revenue and maintain their academic quality by raising tuition fees – assuredly beyond the reach of at least some low income students – should they be allowed to do so, even if the effect is to widen the socio-economic disparities in participation between the public and private ‘elites’ and all other institutions?<sup>13</sup> Is it a cost-effective use of public money to provide the substantially larger grants required to bring the very high cost/high tuition institutions (whether public or private) ‘into range’ for traditionally under-represented students – particularly when even the more modest tuitions are thought by some to be a deterrent to some students?<sup>14</sup>

6. Do scholars, policy analysts and public officials believe the commonly professed claim of socio-economic, ethnic or gender-based *debt aversion* – suggesting that the higher educational under-representation of such groups will *not* be rectified by *loans*, however attractively packaged, but will require (more expensive) *grants* because such groups are thought to be culturally averse to borrowing (Callender 2003a, 2003b and in this volume)? This belief is widely held in spite of what some others believe to be the thin evidence in its support (Bradley and Whitehead 2003). Furthermore, even if there is some demonstrable correlation between low family income and non-participation in higher education *because of debt aversion*, is such a correlation significant enough to be worth the substantial expense of abandoning loans in favour of grants – or the even greater cost of abandoning tuition fees altogether, thus incurring the opportunity cost of forgoing other governmental expenditures that might benefit students and institutions?<sup>15</sup>

Higher and other forms of postsecondary education are costly. The total and the per-student costs of instruction are pressing upward at rates typically greater than the average rate of increase of prices generally – that is, greater than the prevailing rate of inflation – and generally, even in mature economies, at rates that governments almost certainly cannot match. This chapter has been about the variety and cost-effectiveness of various forms of cost-sharing and targeted governmental subsidisation designed to achieve the delicate and complex balance among:

- financially healthy universities and other higher educational institutions – recognising the increasing benefits of higher education to individuals, economies and societies;
- expanded and more equitable participation in higher education – recognising the persisting but politically and morally unacceptable disparities in matriculation, persistence and success in higher education by social class and other demographic characteristics; and
- the most cost-effective use of public, or taxpayer-originated, revenues for whatever public purpose or set of purposes – recognising the

voracious fiscal appetite of higher education and the fiercely competing claims on scarce public revenues.

This chapter has attempted to present the entire complex of policies setting forth (or eschewing) tuition fees, expected parental contributions, means-testing, student and/or parental loans, the degree of governmental subsidisation thereof, and the entire panoply of governmental and/or institutional grants or bursaries as a set of policies that shifts a relatively fixed set of expenses around among taxpayers, parents, students and philanthropists in pursuit of diverse higher educational policy goals. These policies affect the fundamental financial position – and thus the nature and the quality – of universities and other institutions of higher education as well as the participation and relative accessibility of higher education to students of different socio-economic and cultural and perhaps even of different genders.

### NOTES

- 1 This was an anomaly due to the (then) cap on the federal means-tested grants of no more than one-half of the total cost of attendance. In light of the (then) very low State University of New York tuition fees, this meant that the federal means-tested grant, at least for commuting students, was capped at less than its normal maximum, thus explaining why an increase in tuition fees – which the state grant would have covered entirely for these low income commuting students – would have ‘put money in the students’ pockets’. Not surprisingly, the governor and legislators chose to not believe this!
- 2 A vivid example experienced by this author of the political expediency – and of the hidden true incidence – of a tax on business was the occasion in the 1980s when the State of New York experienced one of its many serious shortfalls in tax revenue (and of course which threatened the public universities) but was politically unable to raise any of the usual taxes under its jurisdiction. One of the ‘solutions’ was to impose a hefty tax increase on the telephone company – then a privately held monopoly operating under the close state regulation of a public utility – and simultaneously letting it be known (at least to the telephone company) that the public commission regulating telephone rate increases would allow the company to raise its rates sufficient to recover the entire amount of this additional tax. Clearly, the telephone company thus became the collector of a state surtax on all telephone users – an incidence not unlike the probable incidence of most other tax increases that the state could have imposed directly, but with the political advantage of at least seeming to shift the blame for the increase from the governor and legislature to the telephone company. This is simply a narrow example of the phenomenon familiar to all of the 20<sup>th</sup> century Communist economies in which the enormous public sectors were financed mainly through some variant of value-added taxes that siphoned purchasing power from all of the state-owned enterprises at each level of production, leaving very little at the end of the production processes to pay decent wages – but without the workers feeling directly taxed, as such.
- 3 Similar to the way that a tax on business can be recovered through higher prices and thus be borne ultimately not by the stockholder or management but by the general consumer, a public expenditure financed not by taxes but by *deficit spending*, and thus usually adding to inflation and a reduction in the purchasing power of the currency, is also passed on to the general consumer – who is essentially the same entity as the general taxpayer.
- 4 A clear indication of this is the case of Australia, where the tuition fees are designed to be paid for by students (*children*, for the purpose of this point) through the Higher Education Contribution Scheme (see Chapman in this volume), but can also be paid up-front, mainly by parents, with the just over 20 per cent who do so clearly demonstrating the perceived value to, or benefit realised by, *parents*.
- 5 This description of totally taxpayer subsidised – without the massive shares of a country’s output – probably in 2005 best fits the countries of Sub-Saharan Africa, especially those with Marxist, or so-called African socialist, economic legacies, although various forms of cost-sharing are encroaching rapidly (see Johnstone 2004c).

- 6 For example, it can be argued that some *additional* payments are needed to compensate either (or both): (a) for the low levels of higher educational aspiration and role modelling (i.e. low levels of so-called cultural capital) in very low income households; or (b) for what are probably the higher perceived opportunity costs to the low income child and family, for whom employment after high school is a very real alternative (as opposed to the upper middle class youth, for whom higher education is such a strong expectation for both the child and the family that the option of employment and earnings immediately after high school may not be given serious consideration).
- 7 An alternative, more cynical, view in the US is that such so-called *merit* grants do not substantially affect the academic behaviour of high-achieving secondary school students – who achieve at high levels mainly for other reasons – but are more satisfying for politicians to give out, or take credit for, than grants to low income children, who are more likely to be academically marginal.
- 8 In the US, such public university expenditures – usually for merit scholarships designed to lure top students away from elite private college or university competitors – are becoming more common as more and more US public universities succeed in amassing large private endowments. Such merit scholarships, which clearly serve institutional rather than public purposes, generally do not come from governmental or state-taxpayer sources, although state politicians can decide that merit scholarships for their public universities are in their state’s public interest (or in their own political interest) and establish state merit scholarships accordingly.
- 9 In fact, at least in the US, where private colleges and universities are so wealthy and compete so fiercely for the best secondary school graduates (who are likely to come from privileged homes), the principal consequence of this ‘bidding war’, in which institutions are forced to match competing offers, may be reductions in the otherwise very high expected parental contributions that upper middle class parents need to make to enrol their high achieving children in expensive private colleges and universities.
- 10 The concept of a *zero real* rate of interest – that is, pegging a variable annual interest to the officially calculated rate of inflation – is increasingly popular, as is practiced, for example, in Sweden, Australia and the UK. However, it is important to note that this still constitutes a substantial subsidisation, as the real cost of money, even to the government, in most years is likely to be in the range of 2–3 per cent.
- 11 The discount, in effect, would be automatic and totally outside the discretion of any grant giver. However, an advantage to means-tested *grants* over means-tested *tuitions* is that the grants may be easier to ‘fine tune’ and are less dependent only on reported income, which in some cases is an imperfect measure of ability to pay.
- 12 For example, there is an extensive literature, mainly US (e.g. Heller 1997) purporting to explain (tuition) price elasticities of demand for higher education – mostly with a dollar rise in tuition as the independent variable and a change in aggregate enrolment as the dependent variable. However, the commonsense of experience should tell us that there are many alternative ‘enrolment decisions’ that might be affected by an exceptional tuition hike – such as borrowing more, working longer hours, ‘stopping out’ for a semester, moving ‘back home’ to save money, transferring to a less expensive institution (or less expensive living situation), dropping out altogether or changing one’s plan and not matriculating after all. Clearly the last two are deeply troubling as they represent real financial barriers to postsecondary education. The other alternatives, while not inconsequential, are less troubling to most observers. Yet we know very little about these more ‘nuanced’ behavioural responses to increases or decreases in either tuition fees or grants.
- 13 This is a burning issue in the UK over the issue of permitting so-called *top-up* fees.
- 14 The principal US means-tested grant, the Pell grant, is explicitly not tuition sensitive, revealing a long established federal policy that this grant programme is only for access, not for ‘choice’ or for making accessible the most challenging (selective) institution.
- 15 There is at least an arguable disconnect between the assertion that young people from low income or ethnic minority cultures that have traditionally eschewed higher education ought now to seek out higher educational opportunities because of the changing times – but ought not be expected to accept other aspects of modernisation, such as accepting the appropriateness of credit and especially of investing in one’s own education.

## REFERENCES

- Bowen, W. and D. Breneman. "Student Aid: Price Discount or Educational Investment?" *Brookings Review* 11.1 (1993): 28–31.
- Bradley, P. and A. Whitehead (Members of Parliament). "Excellence, Equity and Access: Squaring the Circle of Higher Educational Funding." Section 2, Pamphlet edn. 25 Nov. 2003.
- Callender, C. *Attitudes to Debt: School Leavers' and Further Education Students' Attitudes to Debt and Their Impact on Participation in Higher Education*. London: Universities UK, 2003a.
- Callender, C. "Degrees of Debt – How Poorer Students are Put Off University." *The Edge* 14 (2003b): 10–13.
- Cervenán, A. and A. Usher. *The More Things Change: Undergraduate Student Living Standards After 40 Years of the Canada Student Loan Program*. Washington, DC: Educational Policy Institute Inc., 2004.
- DfES. *The Future of Higher Education* (White Paper). London: HMSO, Cm 5735, 2003a.
- Heller, D.E. "Student Price Response in Higher Education: An Update to Leslie and Brinkman." *Journal of Higher Education* 68.6 (1997): 624–659.
- Hemingway, F. *Does Money Matter?* Montreal: The Canada Millennium Scholarship Foundation, 2004.
- Johnstone, D. Bruce. *Sharing the Costs of Higher Education: Student Financial Assistance in the United Kingdom, the Federal Republic of Germany, France, Sweden, and the United States*. New York: College Entrance Examination Board, 1986.
- Johnstone, D. Bruce. "Financing Higher Education: Who Should Pay?" In Altbach, P., R. Berdahl and P. Gumpert (eds). *American Higher Education in the Twenty-first Century: Social, Political and Economic Challenges*. Baltimore: The Johns Hopkins University Press, 1999, 347–369.
- Johnstone, D. Bruce. "Challenges of Financial Austerity: Imperatives and Limitations of Revenue Diversification in Higher Education." *The Welsh Journal of Education*. Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 18–36.
- Johnstone, D. Bruce. "Cost-Sharing in Higher Education: Tuition, Financial Assistance, and Accessibility." *Czech Sociological Review* 39.3 (2003): 351–374.
- Johnstone, D. Bruce. "Cost-Sharing and Equity in Higher Education: Implications of Income Contingent Loans." In Teixeira, P., B. Jongbloed, D. Dill and A. Amaral (eds). *Markets in Higher Education: Rhetoric or Reality?* Dordrecht: Kluwer, 2004a, 37–60.
- Johnstone, D. Bruce. "The Economics and Politics of Cost Sharing in Higher Education: Comparative Perspectives." *Economics of Education Review* 20:4 (2004b): 403–410.
- Johnstone, D. Bruce. "Higher Education Finance and Accessibility: Tuition Fees and Student Loans in Sub-Saharan Africa." *Journal of Higher Education in Africa* 2.2 (2004c) 11–36.
- Marcucci, P. and D. Bruce Johnstone. "Tuition Policies in a Comparative Perspective: Theoretical and Political Rationales." Buffalo: University at Buffalo Center for Comparative and Global Studies in Education, 2003.
- Woodhall, M. "Paying for Learning: The Debate on Student Fees, Grants and Loans in International Perspective." *The Welsh Journal of Education*. Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 1–9.

BRUCE CHAPMAN

# INCOME RELATED STUDENT LOANS: CONCEPTS, INTERNATIONAL REFORMS AND ADMINISTRATIVE CHALLENGES

## 1. INTRODUCTION

A critical aim of a higher education financing system is to help ensure that there are minimal barriers to the participation of talented but poor students. To this end governments of mature economies typically intervene, either through the provision of taxpayer subsidies covering all tuition costs and some proportion of student living expenses, or through public sector involvement in loan programmes. This chapter begins by explaining, with reference to capital market ‘failure’, why it is that some form of government intervention is necessary to minimise problems of access.

The most common form of financing assistance involves governments offering access to guaranteed commercial bank loans. Interventions of this type address part of the capital market problem but, as explained in section 4, the approach does not offer a comprehensive solution.

A relatively new form of government loan intervention (in application terms), known as income related loans (IRLs), is examined conceptually in section 5.<sup>1</sup> This approach involves former students repaying debt contingent on their future incomes, meaning that capacity to pay is given weight. Policies of this type are now in place in several countries, and their experiences are considered briefly in section 6. A cautionary note is offered in this section designed to highlight implementation problems of particular significance for the adoption of IRLs in developing countries.

## 2. THE CASE FOR GOVERNMENT INTERVENTION: CAPITAL MARKET ‘FAILURE’

To understand what, if any, might be the correct forms of public sector higher education financing involvement, it is useful to ask: what problems would arise in the absence of government intervention? This could involve the following arrangements. Assuming that the public sector accepted the existence of externalities from higher education, there is thus a resource allocative efficiency case for the provision of taxpayer-financed subsidies equal to the presumed marginal value of the spillovers.

In the absence of intervention this could be achieved by the government providing the appropriate level of finance to universities and allowing the institutions to charge up-front fees to cover remaining costs, assumed in this

approach to be equivalent to the marginal private benefits of higher education attendance (see Chia 1990; and Chapman 2004).

However, there are major problems with such an arrangement, first raised by Friedman (1955). The argument can be best understood with reference to the nexus between labour markets and human capital investments, the essential point being that educational investments are risky, because (Barr 2001; and Palacios 2004):

- (i) enrolling students do not know fully their capacities for (and perhaps even true interest in) the higher education discipline of their choice. This means in an extreme they cannot be sure that they will graduate and, in Australia for example, around 25 per cent of those enrolling end up without a qualification;
- (ii) even given course completion, students will not be aware of their likely relative success in the area of study. This will depend not just on their own abilities, but also on the skills of others competing for jobs in the area;
- (iii) there is uncertainty concerning the future value of the investment. For example, the labour market – including the labour market for graduates in specific skill areas – is undergoing constant change. What looked like a good investment might turn out to be a poor choice when the process is finished; and
- (iv) many prospective students, particularly those from disadvantaged backgrounds, may not have much information concerning graduate incomes, due in part to a lack of contact with graduates.

These uncertainties are associated with important risks since if graduate future incomes turn out to be lower than expected, the individual is unable to sell part of the investment to re-finance a different educational path, for example. This is critical in an understanding of capital market failure, and explains why banks will not be interested in unsecured loans for higher education investments, compounded by the fact that there is no collateral to be sold in the event of default. And even if it were possible for a third party to own and sell human capital, its future value might turn out eventually to be quite low.

These issues are apparently understood by the governments of most countries because there are typically public sector loan interventions. Until recently, government intervention almost exclusively took the form of public sector guarantees for commercial bank provision of education loans, and over the last decade or so has increasingly involved IRLs. While quite different in practice, both approaches are motivated in part by the recognition that left to themselves, higher education markets will function poorly.

An assumption implicit in the above discussion is that the capital market issue is important enough to mean that, in the absence of government intervention, access to higher education will be restricted significantly. But the borrowing problem takes on a serious form only if it is actually the case that there are constraints for individuals in need of bank financing. There is evidence concerning the extent to which access to credit limits human capital investment, and it takes several forms.

One concerns the argument that if there are no borrowing constraints with respect to the financing of skill investments, there should also be no relationship between family income and an individual's level of education. This turns out to be a difficult research assignment because of the complicated relationships between family income and its likely association with educational choice factors. These include the quality of compulsory schooling, inherent ability, educational motivation and the transfer of values between parents and children.

There is now considerable empirical evidence on this issue (e.g. Cameron and Heckman 2001). While it suggests that family factors are critical to an understanding of higher education enrolment outcomes, for a minority of potential students a lack of access to capital seems still to be an important factor.

The second type of evidence provided in analyses of credit constraints asks whether or not there is a relationship between family income and changes in the private costs and benefits of college. Kane and Rouse (1999) explore these issues with respect to both rates of return to education and the effects of increases in tuition. The data from different exercises imply the existence of credit constraints.

It is important to recognise that the data concerning the access of the poor to higher education are typically collected in an environment in which there are policy initiatives designed to minimise the problem. This suggests that in the absence of such government intervention, credit constraints would be likely to have been found to be more important, so long as such policies have some effect.

Overall, it appears that there are many factors contributing to children from poorer families being less likely to attend higher education, but this stylised fact is not sufficient evidence for the existence of credit constraints. However, there is now considerable research considering the influence of non-family background factors on access. In summary, borrowing problems have acted to restrict higher education enrolments for a significant minority of prospective students.

On this issue Bruce Johnstone has pointed out in private correspondence (November 2004):

There is no country where the private capital market provides loans to all students without the requirement either of: (a) a credit worthy co-signatory; or (b) a credit worthiness test of the borrower himself/herself based upon academic credentials or a high status/highly competitive academic program and employment future. Such cases, at least by my definition, are not 'generally available' ... In the situations where many or most students have to borrow ... *higher educational accessibility demands governmental intervention to absorb the risk that the private capital market cannot and should not be expected to absorb.*

### 3. THE BENEFITS AND COSTS OF GOVERNMENT-GUARANTEED BANK LOANS

#### 3.1. *The Benefits for Commercial Banks*

Given that credit constraints have real impacts on access to higher education there is a case for government intervention in higher education financing. A possible solution used in many countries, such as the US and Canada (Finnie and Schwartz

1997), involves higher education institutions charging up-front fees in conjunction with government-guaranteed bank loans being made available to students, with amounts available being determined by means-testing of family incomes. Government assistance typically takes two forms: payment of interest before a student graduates; and guarantee of repayment of the debt to the bank in the event of a default. Arrangements such as these are designed to facilitate the involvement of commercial lenders, and the fact that they are common suggests their usefulness.

This form of assistance addresses an important aspect of the capital market problem for lenders. With this approach no collateral is required, and neither will lenders be concerned with the uncertainties associated with future incomes of students; both problems are resolved because the public sector assumes the lenders' risks and costs of default. However, government assistance of this type is associated with other problems.

### *3.2. The Costs for Students*

Government-guaranteed bank loans address the higher education financing problem for lenders, but there are two problems for borrowers, students. They are that loans requiring repayment on the basis of time, rather than capacity to pay, are associated with both default-risk and the prospect of future financial hardships. These issues might usefully be analysed separately in the categories of insurance and consumption-smoothing.

The insurance issue is that repayments in most student loan schemes are fixed with respect to time and are thus not sensitive to an individual's future financial circumstances (Barr 1989). Borrowers who default face damage to their credit reputation and thus eligibility for other loans, such as for a home mortgage (Chapman 1997). Thus in anticipation of potential credit reputation loss, some prospective students may prefer not to take the default-risk of borrowing because of the high potential costs. The possible importance of this form of 'loss aversion' is given theoretical context in Vossensteyn and De Jong (in this volume).

It is instructive to note the evidence concerning which students default. Dynarski (1994) used the National Post-secondary Student Aid Study and found strong evidence that earnings after leaving formal education is a strong determinant of default. Moreover, borrowers from low income households, and minorities, were more likely to default, as were those who did not complete their studies. An important issue from these findings is that some poor prospective students might be averse to borrowing from banks because of the risk of default.

Even so, it would be an exaggeration to suggest that students with bank loans have no alternative other than default in unanticipated circumstances in which they are unable to meet their repayment obligations. In the US, for example, borrowers are able to defer loan repayments if they are able to demonstrate that their financial situation is unduly difficult, and in some cases this might lead to loan forgiveness. But there would generally be no expectation that a bank loan repayment takes into account capacity to repay.

A related problem for students from bank loans concerns possible consumption difficulties associated with fixed repayments. Given the uncertainties associated with the path of future income, a fixed level of a debt payment increases the variance of disposable (after debt repayments) incomes. This raises the possibility of students experiencing repayment hardships if future financial circumstances turn out to be poorer than expected. Finnie and Usher (in this volume) offer useful empirical evidence on repayment hardships, noting that between 20 and 35 per cent of former students report 'difficulties in repayment' of Canada Student Loans.

A final possible practical problem of government-guaranteed bank loans relates to the fact that in many countries loans of this type are typically not universally available, or available loan levels are limited.<sup>2</sup> That is, usually loan provision is means-tested on the basis of family income.

This raises the important issue explained above and noted by Carneiro and Heckman (2002), concerning the role of the sharing of financial resources within families. Some students will be unable to access necessary levels of borrowing and will face the same credit market failure as they would in the absence of a government guarantee of a bank loan. That is, means-testing with loans means that some prospective students will have difficulties accessing the system.

#### 4. THE COSTS AND BENEFITS OF IRLS

##### *4.1. The General Case for IRLs Compared to Bank Loans: Default-protection and Consumption-smoothing*

There are two advantages of IRL schemes compared to government-guaranteed bank loans, both arising from repayment obligations being based on the borrower's capacity to repay. The first is that a properly designed IRL has as its major characteristic complete default-protection for borrowers; a student can't go broke because of an inability to meet repayments. Thus IRLs have the capacity to solve the essential capital market failure for human capital investments.

Second, IRLs have the potential to significantly diminish debt repayment difficulties, again because obligations are reduced or eliminated in future periods of financial adversity. That is, IRLs provide consumption-smoothing.

A particular advantage of consumption-smoothing is pertinent to an understanding of US higher education financing policy. It is that some graduates with very high levels of bank debt will be forced to undertake employment associated with relatively high earnings in order to be able to repay comfortably their college debts. A concern that this would adversely affect the supply of graduates for low pay public interest employment encouraged the Clinton administration to introduce an IRL option in the US in 1993.<sup>3</sup>

##### *4.2. IRLs and 'Debt Aversion'*

The relative advantages of IRLs noted above raise for discussion the issue of 'debt aversion', the notion that individuals from low socio-economic backgrounds are

more concerned with being in debt because their parents have had traumatic experiences from having bank loans. The point is considered in detail in Callender (in this volume).

But with IRLs there is a different interpretation of debt aversion and its probable connection with family background. This is that one aspect of poor students' concern with debt is likely to be related to the nature of repayment. Specifically, bank loans require borrowers to repay according only to time, and thus give no weight to students' future capacity to pay. There are two critical aspects of the nature of such repayment obligations, both related to the uncertainties of future income streams, and considered in detail in section 3 above: lack of protection against default, and the hardship costs of not having consumption-smoothing.

It matters that these alternative interpretations of the nature of debt aversion predict what seems to be the case: poor students are more likely to avoid bank loans. But they also suggest that an IRL has the potential to diminish significantly the prospect of debt aversion. It is critical that discussion of the phenomenon recognises that bank loans and IRLs have fundamentally different implications in the area, because of the relative weight given to capacity to repay. The bottom line is that IRLs offer a higher potential for both default-insurance and consumption-smoothing.

#### *4.3. Types of IRLs*

These generic advantages of IRLs notwithstanding, it is important to recognise that there are different forms of income related financial instruments, and, even within genres, there are very distinct ways in which they can be made operational. The nature of these differences and their effects are now examined.

Income related financing takes several broad forms known as: IRLs with risk-pooling; IRLs with risk-sharing; graduate taxes; and human capital contracts. Within these broad categories there are myriad designs differentiated by parameters such as: the level of the charge; the percentage of income to be repaid; interest rates; forgiveness of the debt; and income thresholds. There are many hybrids of IRLs that fit within the broad categories uneasily.

##### *4.3.1. IRLs with Risk-pooling*

An IRL with so-called 'risk-pooling' is one with a fixed total debt for members of cohorts involved. That is, students signing on to the debt repayment are also agreeing to take some financial responsibility for the unpaid debt of others.

Thus while risk-pooling IRLs offer an insurance system, it is one with premiums adjusted ex post to take into account the repayment experience of others in the borrowing cohort. This means that borrowers with high lifetime incomes, the 'winners', will repay the balance unpaid by those with low lifetime incomes, the 'losers'. That is, the effective interest rate for successful investors in human capital will be adjusted to a level sufficiently high to compensate for the extent of non-payment of others, either because members of the latter group default fraudulently or simply experience low lifetime incomes.

In essence risk-pooling IRLs transfer borrowing costs to non-defaulters. This apparently is what happened with respect to the Yale Plan, now examined.

The Yale Plan,<sup>4</sup> introduced at Yale University in the 1970s but since discontinued, is the best-known example of a full risk-pooling IRL. Nerlove (1975) raises some serious operational problems with arrangements of this kind. His essential motivation was to explore the behavioural consequences of such schemes, with particular reference to two major micro-economic issues: adverse selection and moral hazard.

Nerlove suggested that the design characteristics of a risk-pooling IRL encourage a form of adverse selection. Specifically, since such schemes are designed to be revenue-neutral (i.e. not involving any subsidies from the lending agency) individuals expecting to be winners (future high income earners) have incentives to avoid being involved. On the other hand, those potential borrowers with expectations of relatively poor future prospects have an incentive to take such loans, because if their expectations are met, they will have their repayments subsidised by winners.

There is thus a clear implication that the cohort of students willing to borrow from a risk-pooling IRL will be made up of individuals expecting their future relative earnings to be low on average. For a university such as Yale, hoping to attract the highest quality students, the scheme has the perverse effect of encouraging the ablest students to seek enrolment at universities offering non-IRL financial assistance, such as subsidised bank loans.

The second problem for risk-pooling IRLs, also identified by Nerlove, involves moral hazard, and relates to the behaviour of debtors. Since the scheme in effect taxes the successful on the basis of declared income, the incentive is for borrowers to behave in ways that minimise repayments. This could take the form of choosing jobs with relatively high remuneration being in non-salary form.

This form of moral hazard behaviour increases the debt of those with measurably high incomes, even if their total remuneration is relatively low. That is, there is a built-in incentive for risk-pooling IRLs not to achieve high levels of protection for unsuccessful debtors.

Raymond and Sesnowitz (1976) explore the extent to which repayment obligations from those involved in risk-pooling IRLs might be considered burdensome. Through a series of simulation exercises they found that under most sensible parameters of potential repayment, IRLs of these types would still leave most borrowers better off in terms of the effect of the repayments on rates of return to higher education.

However, even if graduates are 'better off' than not undertaking higher education in terms of retaining average high rates of return, the moral hazard point with respect to the labour/leisure choice remains. Responding to Nerlove's lament concerning the paucity of empirical evidence on the potential size of the behavioural effects from risk-pooling IRLs, Feldman (1976) conducted a series of simulations of the effects of current versus IRL financing arrangements with respect to different medical speciality incomes. Under a range of plausible assumptions concerning labour supply, his major finding is that there would be a 6.6 per cent fall in weeks

worked, equivalent to an effective overall loss of about 725 new physicians in the US per year (in the mid-1970s) if current loans were converted into a risk-pooling IRL.

The issues of adverse selection and moral hazard raised by Nerlove constitute serious challenges for those advocating risk-pooling IRLs as a solution to capital market failure and as an answer to the problems associated with government-guaranteed bank loans. This seems to be particularly likely with respect to the ex post implications of risk-pooling IRLs. Once graduates begin to earn relatively high incomes it should be expected that there would be some behavioural responses to what are effectively high levels of marginal tax rates.

A bottom line with respect to both moral hazard and adverse selection is that risk-pooling IRLs do not seem to be workable. There is an additional issue concerning the efficacy of the Yale Plan, concerning collection, considered in further detail below.

Barr (2001), Palacios (2004) and Chapman and Nicholls (2003), point out that there are several important conditions that have to be met in order for an IRL to be workable. The basic points are that the collection agency has to have the capacity to accurately assess a former student's lifetime incomes, and to be then able to deduct debts in accordance with these incomes in a low-cost way. This suggests that private institutions – such as Yale University – are likely to face major difficulties, and these may be significant enough to render non-government schemes unworkable.

That is, in principle, while an IRL with risk-pooling could be operated within or outside the public sector, the public sector has the distinct advantage of administrative efficient collection of debt using the internal revenue service (or tax office). This is likely to be critical for the operation of such schemes, since the probability of default of a risk-pooled IRL will determine in part how much winners compensate losers and thus reflects the extent of unequal distributions of repayments between different borrowers. Collection of IRLs, and more generally IRL design, is a critical matter for policy.

#### *4.3.2. IRLs with Risk-sharing*

A different form of IRLs is known as 'risk-sharing'. With risk-sharing IRLs borrowers are obligated to repay a maximum amount in present value terms but the extent of the obligation is unrelated to the actual incomes received, and thus the repayment levels, of others involved in the scheme. That is, the risks of non-repayment – the costs of income contingency – are shared with taxpayers, not other members of the borrowing cohort.

That is, compared to a risk-pooling system, it is less likely for a risk-sharing IRL to repel students expecting to do very well in the labour market, and less important for those eventually repaying to attempt to avoid the obligation if the number in the cohort 'defaulting' turns out to be higher than expected.

The important point is that, unlike with respect to a risk-pooling IRL, with risk-sharing IRLs there are no downside risks for any of the borrowers. That is, if the government receives lower than expected repayments there are no associated penalties for borrowers,<sup>5</sup> nor are there any rewards to borrowers if the opposite turns

out to be the case. The advantage of this type of IRL is the avoidance of some part of the adverse selection and moral hazard costs associated with risk-pooling IRLs.

The examples of risk-shared IRLs best known are those initiated in Australia in 1989, New Zealand (1991), and to be implemented in the UK in 2005 and Thailand in 2006. But even within this category, it is clear that the forms of IRLs in these countries differ in important dimensions and accordingly with respect to their likely economic and educational consequences. With this important caveat in mind, there are still significant broadly based theoretical insights available with respect to risk-sharing IRLs.

As conceptual background, it is useful to understand that before the 1990s research on the return to education or human capital investments had proceeded in two directions. Labour economists were building increasingly sophisticated models based on expected utility maximisation (e.g. Levhari and Weiss 1974; Eaton and Rosen 1980; and Paroush 1976). Most researchers, however, continued to use rates of return calculations (e.g. Psacharopoulos 1973, 1985) with scant attention being paid to the private and social risks associated with the investment.

Chia (1990) attempted to combine these two strands of research by developing a simple framework whereby the risks associated with investment in higher education can be readily incorporated into conventional measures of profitability, such as the net present value. Coming at the issue of rates of return in this way allowed Chia to develop a framework robust enough to calculate the benefits to the borrower of risk-sharing IRLs, now explained.

The essence of Chia's work was to use an expected utility framework to estimate an uncertainty premium, which was then used to adjust the net present value resulting from investment in higher education. This allowed him to quantify the 'insurance content' of an ex post income contingent fee scheme (of the risk-sharing variety) and to compare this calculation with the payment of fees with no insurance for both given levels of uncertainty and with respect to a range of risk aversion.

Chia found that if individuals are uncertain of their ability (and thus face greater uncertainty in potential income streams as a result) they would prefer an income contingent fee scheme to paying up-front fees. The 'insurance content' of the income contingent scheme could, in some instances, amount to more than the equivalent of a year's fees. On the other hand, if individuals are fully aware of their abilities, then those with high abilities would prefer to pay their fees up-front while the less able would opt for the income contingent scheme. It should be recognised that there are, of course, forms of uncertainty unrelated to an individual's ability, such as the future state of the labour market, meaning that even those fully aware of their individual capacities will not be able to predict their lifetime incomes.

Grout (1983) presented a version of the Arrow (1973a, 1973b) discrimination model with imperfect information and showed that "... an element of income contingency will offset to some extent the misallocation of educational resources resulting from imperfect expectations" (p. 32). Similar to Chia's result concerning ability, he showed that the benefits of risk-sharing IRLs are greater the less certain individuals are of their future incomes and the greater is risk aversion. From Grout's simulation exercises IRLs seem to have the most propitious leverage in terms of the reduction of the costs of uncertainty. That is, the effects of IRLs on welfare even

given a significant range of risk aversion are relatively small compared to their benefits in terms of minimising the effects of uncertainty.

Quiggin (2003) extended these results, offering analysis focused on the notion that risk-sharing IRLs provide a mixture of consumption-smoothing benefits and insurance against the uncertain outcomes of risky educational investments. Using a conventional two-period modelling approach with risk aversion and imperfect information, Quiggin establishes that this approach will enhance welfare relative to the alternative of up-front fees yielding the same revenue in present value terms.

Quiggin also demonstrates that the form of IRL with the best welfare properties has a threshold below which no repayments are required. However, there is a critical trade-off with respect to the design of an IRL, at least with respect to risk-neutral individuals: there is an insurance effect, which is welfare improving, and there is a subsidy effect, which is welfare reducing. This promotes for policy consideration the critical role played by the choice of collection parameters: if they are insufficiently generous there will be inadequate insurance provision; but if they offer considerable protection the associated subsidies will be too high. This is a critical trade-off for the design of such schemes.

Moen (1998) analyses variants of risk-sharing IRLs using an equilibrium search model of the Diamond–Mortensen–Pissarides variety. His analysis begins with the familiar point that human capital investments are irreversible, and he shows that, given this irreversibility, investments will be less than optimal unless ex post those investing are able to share the costs of job search.

The overall conclusion from these somewhat different modelling approaches is the same: an IRL risk-sharing system is in general welfare increasing compared to either bank loans or up-front fees. The greater both risk aversion and uncertainty are, the stronger are these results. Moreover, these analyses focus on economic efficiency with the conclusions implicitly giving no weight to the potential for IRLs of this type to contribute propitiously in equity terms. This suggests that the relatively high welfare properties of risk-sharing IRLs could be argued to understate the overall social benefits of these types of approaches to higher education financing.

There is a caveat to the general thrust of the analytical results. This is that the greater the insurance protection offered (through, for example, having a very high first income threshold of repayment of, or a very low nominal rate of interest on, the debt), the less likely is an IRL to achieve a social optimum. This is the result of risk-sharing arrangements offering relatively higher taxpayer subsidies as a trade-off to the provision of default-protection for borrowers.

#### *4.3.3. Graduate Taxes*

A very different form of an income related financing instrument, and one that has yet to be implemented, is known as a graduate tax (GT). A GT takes the following broad form.

Graduates (or former students, more generally) agree to repay a proportion of their incomes, say 2 per cent per year, for a given length of time (which could be as long as a lifetime). Thus they share the essential ingredients of both risk-pooling and

risk-sharing IRLs, which is that ‘loan’ payments are made in such a way as to ensure default-protection. They can be designed to raise considerable revenue, even at the same time as their influence on returns to higher education are not affected significantly, a point made by Lincoln and Walker (1995) through some plausible simulations.

However, there are significant differences between GTs and IRLs. The most obvious is that the former is not based on cost recovery. This can lead to the so-called ‘Mick Jagger’ problem, as explained in Barr (2001). This is that the lead singer of the Rolling Stones rock band studied for a short time at the London School of Economics. If a GT was applied to his income for life (and if it could be collected), Mr Jagger’s payments would massively exceed the direct costs of his higher education, even by several hundred-fold. The example is very extreme, but serves to illustrate that the revenue collected can be seen to be excessive in many cases, and only poorly related to the benefits of higher education.

A second and related difference is that for very high earners the fact that the GT is ongoing, that is, an addition to income tax, suggests there might be much higher work disincentives from this form of payment than there would be for IRLs involving cost recovery (Barr 2001). This is a variant of the moral hazard problem associated with risk-pooling IRLs.

Third, the revenue from GTs will not reflect marginal cost pricing rules, and nor do the resources received have any resource allocative implications – instead they are essentially a device designed to raise money from the direct beneficiaries of higher education. The incapacity of GTs to influence economic efficiency is highlighted in both Barr (2001) and Greenaway and Haynes (2003) as a major reason to prefer different forms of income contingent instruments, such as a risk-pooling IRL.

A fourth point concerning the efficacy of a GT is also related to the pricing rules, and has a critical administration challenge. That is, should there be any attempt to have repayments reflect the time and other higher education resources absorbed by the student? While this is a general issue for courses of markedly different length, the point applies also to the issue of whether or not identical repayment rates should apply for students enrolling in one course only, or not graduating, compared to those completing a degree (or several degrees).

Finally, unlike an IRL, a GT does not offer the potential for the government to sell debt obligations in the private capital market, because with a GT there is no clear mechanism to calculate graduates’ unpaid financial obligations. However, the extent to which this matters is not obvious, since the benefits to a government of privatising IRL debt are likely to be more apparent than they are real. The issue warrants closer inspection.

#### *4.3.4. Human Capital Contracts*

There has been recent interest in whether private firms could be involved in financial arrangements in which payments are tied to the borrower’s income. Proponents of this approach question the notion that only the public sector should be

involved in sharing the risk of IRL schemes. It is argued by some that such private involvement could take place without public sector involvement.

The most common incarnation of the above idea is a contract that specifies a percentage of income to be paid over a predetermined time period by students benefiting from income and tuition support. With such an arrangement the instrument takes a form similar to a GT (with the additional twist that the percentage is determined by the amount borrowed by students). Then a high earner would pay more than was borrowed and a low earner would pay less. From the investor's perspective, the loan resembles a significant investment in the borrower's earning power. Arrangements of this type are known as human capital contracts (HCCs).

Palacios (2004) argues that these instruments would promote efficiency in the higher education market by increasing the information available about future earnings with respect to different universities and fields of study. The contracts would therefore reflect market expectations of students' future earnings, thereby creating an observable 'market value' for different types of education or different cohorts of individuals. He adds that this information would also create an instrument for measuring the value of the insurance implicit in IRLs, thereby introducing a market measure of the extra amounts that governments should ask students to pay to compensate the losses on an IRL.

Recognising the possibility that using loans whose payments are tied to income may mitigate income risk, there have been a few attempts to understand the personal financial impacts from the borrower's perspective. Rather than using aggregate data to infer the needs of borrowers, these studies have applied financial decision theory to the market for loans.

Carver (2004) creates a model of individual choice for loans to explore preferences among different loan alternatives. In the model, utility maximising borrowers with uncertain income prospects consider the effect of both standard debt and percentage of income loans (HCCs) on the probability distribution of the net present value as on of future income. The borrower receives funding from a risk neutral lender who offers prices for debt and HCC funding. The model shows that, according to Pareto criteria, optimal contracts can consist of: (i) all standard debt; (ii) all HCC funding; or (iii) some combination of debt and HCC.

The type of contract that is optimal depends on the lender's beliefs about the borrower's income prospects, the borrower's beliefs about his/her own income prospects and also the borrower's degree of risk aversion. He then goes on to suggest that the individual borrowing decision can be made in a manner similar to the corporate borrowing decision. The results indicate that borrowers who are more uncertain about future income – or who are risk averse about future income prospects – will choose to raise money by pledging percentages of income rather than taking on standard debt. Carver's model can be adapted to arrive at the same conclusions for HCCs as Chia reaches with respect to risk-sharing IRLs.

HCCs are now in operation, with the first business formed known as MyRichUncle (founded by Vishal Garg and Raza Khan in the US in 2002). MyRichUncle began with a subset of engineering students at the University of California, San Diego. To minimise problems of adverse selection, eligibility for the contract is determined in part through academic merit. Repayments of the obligation

are remitted directly to the company, with amounts validated through the provision of income information made available to the internal revenue service. This is bound to be less efficient than would be a direct deduction, as operates in Australia, New Zealand and other countries, but the principle of default-protection remains intact.

## 5. INTERNATIONAL IRL REFORMS

### *5.1. International Applications of IRLs*

#### *5.1.1. The Yale Plan*

Yale University introduced an IRL scheme in 1972, extended in 1976 but discontinued several years later. Apart from loans being repaid depending on income, the scheme had the feature of borrowing being of a 'group loans' form, in which there was mutual responsibility between members with respect to the repayment of the total debt. That is, the Yale scheme was a risk-pooling IRL.

Individual repayments were not unlimited, however, with a cap being defined at 150 per cent of the borrower's loan. This then became a 'buy-out' option for former students wishing to discontinue in the programme (Palacios 2004). Even so, risk-pooling necessarily meant that high income earners covered the unpaid debts of low income earners and those who defaulted for other reasons.

Initial default rates of 15 per cent exceeded expectations, and this had an unfortunate behavioural implication. This was to encourage those remaining in the scheme to avoid repayments as well, increasing the burden further for those not so doing. These effects are close to what would be expected with the moral hazard issue raised by Nerlove (1975).

One of the major problems with the Yale scheme was that the university acted as the collection agency. However, an educational institution is poorly equipped to efficiently enforce the payment of income contingent loans, and this lack of expertise effectively encouraged and reinforced the sense of inequity of those Yale debtors remaining in the scheme. The critical role of administration and collection is taken up further below.

#### *5.1.2. Sweden*

In Sweden in 1988 the government's student assistance scheme had both a grant and a loans component (Morris 1989). The repayment arrangements were of the conventional type except that at low levels of income former students were allowed to defer repayments. There was evidence of student concerns about repayments at the time (Morris 1989).

The scheme was changed in 1989 to allow a fuller embrace of the notion of income contingent repayment. The arrangement is that former students now repay 4 per cent of their average incomes over the previous two years. The collection is done through an education loans office. There is little available evidence of the effect of the scheme.

### 5.1.3. *Australia*

In 1989 Australia instituted a broadly based risk-sharing IRL charging system for higher education, known as the Higher Education Contribution Scheme (HECS). HECS seeks to recover a part of tuition costs, and is not concerned with student income support.<sup>6</sup> HECS involves students incurring a debt which is repaid according to future incomes, there being a first threshold of repayment of around average Australian earnings. The Tax Office is the collection agency.

Payments are progressive and, after the debt is incurred, there is a real rate of interest of zero. The interest rate regime is more complicated than this however, because if a student chooses to pay up-front, they receive a 25 per cent discount. This means that HECS implicitly has a rough form of a real rate of interest, in that those choosing to pay later initially incur a higher level of debt, although the difference obviously reduces in present value terms over time. The ‘discount’ could be seen to be Australia’s way of encouraging what are called in other countries ‘parental contributions’.<sup>7</sup>

Repayments of HECS debts for typical graduates are shown in Chapman and Ryan (2002). Their analysis illustrates that: male science graduates earning average graduate incomes for full-time work will repay HECS in about 8 or 9 years; equivalent females will repay HECS after about 12 years. Of course, there will be a large variation in repayment profiles given that annual contributions depend on individual graduates’ incomes. Micro-simulation analysis of repayment profiles of HECS illustrates this point (see Harding 1995).

There has by now been considerable research on the effects of the introduction of HECS on a critical issue for policy – the consequences of the scheme for the access of relatively disadvantaged prospective students.

The conclusions from the Australian research with respect to socio-economic mix and access are as follows.

- (i) The introduction of HECS was associated with aggregate increases in higher education participation.
- (ii) HECS did not result in decreases in the participation of prospective students from relatively poor families, although the absolute increases were slightly higher for relatively advantaged students.

Both findings raise some important discussion points. With respect to the first, it doesn’t follow that HECS per se resulted in an increase in the demand for higher education. Indeed, if this were the case it would constitute a curiosity for economic theory, since the result would suggest that increasing the price of a service increases also the quantity demanded.

Understanding the positive relationship between the introduction of tuition and higher education participation is assisted through consideration of the theoretical framework of Finnie and Usher (in this volume). The critical point they make is that typically many public higher education systems are supply-constrained, and this was certainly the case in Australia at the time of the introduction of HECS. The effect of the introduction of the scheme was to encourage the government to outlay

substantially more resources for university places through the promise of higher future revenues.

The apparent finding that neither the introduction of, or changes to, HECS had no apparent effects on the access to the system of poorer students should not be interpreted to mean that risk-sharing IRL schemes have a unique capacity to protect the disadvantaged from any adverse effects of tuition. Indeed, an important finding from the disparate case studies examined in this volume is that the socio-economic mix of higher education students seems fairly insensitive to funding regimes. That is, marked changes in the levels, incidence and nature of grant and loan support systems (and tax and other fiscal incentives) do not seem to affect significantly the proportion of enrolments of students from different family wealth backgrounds.

The above important finding rings true: with respect to the marked changes in the nature of government support in Canada (Finnie and Usher, this volume); even with significant enrolment expansions in Norway (Aamodt, this volume); following marked long-run changes in tuition levels in the Netherlands (Vossesteyn and De Jong, this volume); and with both large higher education growth and increased cost-sharing in Portugal (Teixeira, Rosa and Amaral, this volume). It follows that any claims that particular financing systems are special because they don't affect the socio-economic composition of higher education should not be taken at face value. The current author has in the past gone close to this suggestion with respect to the consequences of risk-sharing IRLs.

The other important finding from HECS is that the collection of the debt is apparently quite efficient in administrative terms. That is, Tax Office estimates put the collection costs at around \$40 million annually, or less than 4 per cent of yearly receipts. Administratively the system seems to have worked well.

#### *5.1.4. New Zealand*

The second country to adopt a broadly based risk-sharing IRL scheme was New Zealand, in 1991. The New Zealand system shares several features of HECS. Specifically:

- loan repayments depend on an individual's income, and are collected through a tax system which made this simple in operational terms; and
- a first income threshold of repayment, after which there is a progressive percentage rate of collection.

The New Zealand arrangements differ importantly to those introduced in Australia. In particular:

- the loans are designed to cover both university fees and some living expenses, although there is also a system of means-tested grants for students from poor backgrounds;
- initially the loans carried a market rate of interest; and

- universities are free to set their own fees (although it is notable that the resulting charge regimes did not differ much between institutions).

In other words, the New Zealand system was designed to be more consistent with free market principles. For example, there is a potential for resource allocation efficiencies through the freedom of institutions to choose fee levels. Further, having a market rate of interest on the debt arguably reflects the true opportunity cost of loans (Barr 2001).

However, in response to public disquiet over the interest rate regime, the government changed the scheme significantly in early 2000. The changes introduced a zero nominal interest rate for the period a student was enrolled, and variations to the application of real rates of interest depending on graduates' employment circumstances. These complications have apparently added to the administration costs of the scheme, with some commentators estimating that it now costs three or four times as much to run the New Zealand system compared to HECS.<sup>8</sup>

There is little direct evidence of the effects of the New Zealand IRL system on the access of disadvantaged prospective students. However, Maani and Warner (2000) report data on changes in participation with respect to ethnicity at the University of Auckland over the 1990s. They suggest that there has been a marked relative decrease in both European and Maori enrolments, and a large increase in the proportion of students with an Asian background. No clear conclusions are drawn as to the meaning of these changes for the effects of the New Zealand IRL scheme.

The New Zealand system has been fairly controversial, and has undergone considerable parameter changes, particularly with respect to interest rates. However, in collection terms the New Zealand IRL scheme has apparently worked satisfactorily, although there is little doubt that the complexities from the current differential interest rate treatment make it administratively quite expensive.

#### *5.1.5. The Republic of South Africa*

The Republic of South African introduced an IRL system in 1991, known as the National Student Financial Aid Scheme (NSFAS). NSFAS was motivated essentially by a concern that without assistance the marked racial skewing of the higher education system away from non-white students would remain (Jackson 2002; Ishengoma 2002). While bursaries could have been used instead of IRLs, it was considered that the costs involved "... would not be financially sustainable" (Jackson 2002: 83). The scheme initially provided resources to about 7500 students, but by 2002 this number had risen to over 100,000, or more than 20 per cent of South Africa's higher education students.

Resources are distributed via the universities, with preference going to prospective students who are both poor and academically able. That is, unlike other national schemes, the South African IRL scheme involves means-testing on the basis of family income at the point of entry to higher education.

Collection takes the form of former students repaying directly to NSFAS when their income reaches R26,000 per annum, at a rate of 3 per cent of income, and this proportion rises to reach a maximum of 8 per cent of income per year when income

exceeds R59,000. In this sense the collection parameters are similar to HECS in that they are progressive, but there are two major differences between the South African approach and those used in both Australia and New Zealand.

The first concerns the first income level of repayment which at about US\$5000 is very much lower than the thresholds used in other countries (see Jackson 2002). Second, in the first instance the student repays directly to the lending institution. That is, the taxation system is not the first port of call, but is instead a last resort. Employers are required to be involved only when a student is not maintaining expected debt repayments. It is unclear how much this adds to administrative costs, but it would seem to suggest that collection is relatively expensive.<sup>9</sup>

#### *5.1.6. The UK*

Higher education financing policy over the last 15 years or so in the UK has been characterised by considerable instability. As well, there have been notable changes over time in the value and institutional nature of student income support. In the 1980s grants were offered on the basis of parental income, but the real value of this support eroded significantly and Barr (2001: 202) argues that “by the late 1980s [it] was no longer adequate fully to support a student’s living costs”.

In 1990 a loan scheme was introduced, but collection was not based on a former student’s income. The loans were designed to replace half of the support previously covered by the grant, but in effect their impact was likely to be smaller than this given that they attracted a zero rate of interest. Barr (2001: 202) notes critically that: “It would have been cheaper to give the money away”.

In 1995 the Conservative government set up a higher education funding committee, due to report after the election of 1997. Chaired by Sir Ron Dearing, the report (Dearing Report 1997) recommended strongly the adoption of a scheme based on Australia’s HECS. For description and analysis of the Dearing recommendations, and the highly modified form in which they were adopted, see Chapman (forthcoming).

In 2003, the UK government announced further proposed reforms to higher education financing. The major changes to be implemented in 2005 are:

- (i) the introduction of price discretion for universities, but with a cap of £3000 per full-time student year;
- (ii) the introduction of tuition for all students, but with the poorest being provided with subsidies; and
- (iii) all students will be able to repay the charge according to their future incomes.

An arguable advantage of the UK system over that of the current Australian approach,<sup>10</sup> and more consistent with the New Zealand approach, is the introduction of some price discretion; since universities are able to charge what they want up to a maximum level of about US\$5000 per full-time course. This implies that there will be some prospects for price competition, and thus the possibility of increased allocative efficiency.

As with the Australian and New Zealand schemes, the UK IRL policy is likely to be relatively inexpensive to administer. This is because income tax arrangements in these countries greatly facilitate the operation of IRLs. The last is a major conclusion from the adoption of such arrangements in countries with efficient, comprehensive and settled income tax collection mechanisms. As explained below, this is far from the case with respect to developing countries, where public administrative challenges related to the collection of IRLs loom large.

#### *5.1.7. The US*

In 1993, the Clinton administration introduced broadly based reforms to student loan programmes (Brody 1994; Schrag 2001). One noteworthy aspect of the reforms adopted included an option for students to adopt income contingent repayments for some part of their loan obligations, for up to 20 per cent of an agreed income basis. Interestingly the justification for an IRL option in the US reform can be traced not to risk or uncertainty with respect to future graduate incomes.

Instead, the background was the Clinton administration's concern for the job choice of graduates. Specifically the perceived problem was that the very high loan repayment burdens of graduates were such as to make job choices in relatively low paid, but socially productive employment, close to impossible. Brody argues that this was the foundation of the proposal, and quotes President Clinton (who participated in the Yale Plan): "A student torn between pursuing a career in teaching or corporate law, for example, will be able to make a career choice based on what he or she wants to do, not how much he or she can earn to pay off the college debt" (Clinton 1993 cited in Brody 1994: 502).

This perspective is supported by Schrag (2001), who reports Kramer (1987) suggesting that the effect of escalating costs and debts for law schools is that they would "... be filled with many more students who, as they become lawyers, do so with the single-minded objective of milking the profession for all it is worth in order to be able to pay retrospectively for their legal education". Schrag suggests that law graduates in public sector jobs would typically face repayments of conventional loans that were around 40 per cent of after-tax earnings.<sup>11</sup>

In support of the above, a survey<sup>12</sup> of Georgetown and Catholic University law students, conducted by Schrag (2001), suggested that up to 70 per cent of students who responded that they were interested in public sector law employment said that they would have to choose jobs in more highly paid private practice because of their loan obligations. US Senate hearings at the time, consistent with President Clinton's view, documented that this was the major motivation for the income contingent loan scheme (Schrag 2001).

That is, an IRL scheme was promoted in the US as a result of the perceived problems associated with the very high level of conventional loan repayments, which was not the case with respect to the background to IRL introduction in Australia, New Zealand and the UK. In these countries, the regressivity of having a no-charge system, the importance of default-protection in the repayment of loans, and the need for resources to allow expansion of higher education were the principal motivations for the introduction of IRL schemes.

The IRL reforms introduced in the US have not worked. With respect to take up, for example, in 1999 only 7 per cent of the eligible student population had chosen to convert their loan obligations to the IRL option (Schrag 2001). The reasons for this are explored in Chapman (forthcoming).

The basic point from the US IRL experiment is that policy design and information processes are critical to the success of public sector initiatives. That is, the US scheme does not adequately address the issue of default-protection, and has been inaccurately and insufficiently promoted to its potential users.

In the US over the last decade or so, there has also been a move by private universities towards a form of income contingent repayment of the debt of law students. These schemes are known as ‘loan repayment assistance programs’ (LRAP). The arrangement, now with 56 law schools, entitles law graduates who choose employment in “... lower-paying public service jobs – such as legal services programs or some government agencies ...” to some forgiveness of loan obligations (American Bar Association 2003: Appendix). The motivation behind universities’ subsidies of LRAP is clear, which is to facilitate the role for private colleges of enabling more lawyers than otherwise to undertake periods of relatively socially productive employment, the same basis as that which encouraged the Clinton reforms. The effects of these programmes are not so far well documented.

#### *5.1.8. Chile*

In 1994, Chile introduced an income contingent loan scheme to replace the previous fixed-payment loan system (Leiva 2002). The loan carries a real interest rate of 2 per cent, and requires from the student annual payments of the lesser between 5 per cent of income and a fixed amount (Palacios 2004).

Importantly, each university is responsible for collecting the payments from the University Credit resulting in widely varied collection results from institution to institution, with average countrywide cost-recovery levels at around 60 per cent (Camhi and Latuf 2000).<sup>13</sup>

Palacios (2004) reports that the system is not widely considered to be successful, for the following reasons: cost-recovery levels are low; and the amounts available for lending are far from satisfying student demand (Leiva 2002).

According to Palacios, Chile’s example reinforces the notion that universities are poorly suited to debt collecting, a point which seems to follow from the Yale IRL experience. That is, for an IRL scheme to work it is critical that repayment collections use a national tax or social security agency. This issue is taken up further below.

#### *5.2. Common Factors in the Successful Adoption of IRLs<sup>14</sup>*

It is interesting to examine some of the circumstances behind the apparent successful adoption of IRLs in Australia, New Zealand, the Republic of South Africa and the UK. Chapman and Greenaway (2003) record there are several factors shared by these four countries which might help in an understanding of their adoption of IRL

schemes within a similar time frame. Two critical aspects of this relate to shared institutional background.

The first is that Australia, New Zealand, the UK and South Africa all have in place taxation systems that could be used to collect efficiently student loans on the basis of future incomes. This is a critical administrative issue, and is fundamental to the prospects of the adoption of IRLs in other countries. It is interesting that in the South African case authorities chose to use the tax system as a back up rather than the port of first call for loan collection, but it still remains the case that the tax system is available for collection.

Second, in these four countries there is a similar higher education system, essentially inherited from the UK. An important characteristic is that the vast majority of universities are public sector institutions, which has meant that the recovery of a loan designed to pay a charge is uncomplicated if the collection authority is also part of the public sector (the internal revenue service or equivalent).

It is also worth stressing that in all of these countries there was a clear recognition that the time for 'free' higher education was over (a position not shared for example in the US, since charges are the norm in that country). The expansion of the number of university places, or improvements in the quality of the service, was seen to be desirable, and none of the governments was prepared to finance the required outlays from additional taxation or reduced public services. Chapman and Greenaway (2003) argue that this can be traced to a worldwide move towards more parsimonious government after about the mid-1980s and, perhaps more importantly, to the recognition that university education financed without direct contributions from the private beneficiaries is in essence regressive and inequitable.<sup>15</sup>

It is possible that the apparent successful implementation of the Australian IRL scheme helped motivate administrative change in these directions in some of the other countries. That is, New Zealand policy advisers were aware of developments in Australia, and there is little doubt that direct contact between analysts from Australia and the UK influenced the nature and form of debate in the latter country. Perhaps the policy point is, as Kenneth Boulding once observed: "If it exists, then it is possible".<sup>16</sup>

While there have been significant reforms in the direction of the adoption of IRLs in the above countries, this has not so far been a shared experience in developing countries. This is the case even though there has been a significant amount of attention with respect to IRL reforms from the World Bank, the UK Department of International Development and other international aid agencies. The following short discussion summarises the experience of these countries, stressing the relative lack of successful implementation of IRLs in developing countries.

### *5.3. Administrative and Collection Issues: IRLs for Developing Countries?*

Chapman and Nicholls (2003) consider policy debates related to the potential adoption of IRLs in Indonesia, Namibia, Ethiopia, Rwanda, the Philippines and other countries. Their essential point is that in Australia and other advanced Western

countries in which an IRL system of deferred payment has been introduced, this has been a relatively simple matter from an administrative point of view.

The reasons for this are that the public administration systems of these countries feature a strong legal framework, a universal and transparent regime of personal taxation and/or social security collection, and an efficient payment mechanism. The last involves computerised record keeping of residents' vital particulars and, very importantly, a universal system of unique identifiers (usually numbers, often accompanied by an identity card).

Under these circumstances it is a relatively simple matter to identify and track individual citizens over time and space. It is not difficult, moreover, given the strength and reach of public administrative systems, to tack onto some existing collection mechanism an additional function: the collection of payments from ex-students, on the basis of a fixed proportion of income.

In the developing world, however, administrative systems are likely to be weak, and often rely on intensive and inefficient manual record keeping. Taxation regimes may be shaky or even corrupt, and usually no reliable system of unique identifiers exists. Financial regulation, bankruptcy laws and contract laws are often ineffectual. Nevertheless, it is in these countries, where social and economic inequalities are usually profound, that even a modest up-front charge for higher education constitutes a significant barrier to participation for citizens other than the very privileged.

Chapman and Nicholls' (2003) survey lead to a summary of the minimum conditions required in order to implement a successful IRL system, which are:

- (i) a reliable, preferably universal, system of unique identifiers;
- (ii) an efficient way of determining with accuracy, over time, the actual income of former students;
- (iii) an accurate record keeping of the accruing liabilities of students (while studying); and
- (iv) a collection mechanism with a sound and, if possible, computerised record keeping system.<sup>17</sup>

A further basic requirement for the introduction of IRLs is a strong legal framework and functional judicial system. Indeed, it is hard to imagine implementing a workable scheme outside this context. Even so, it may be possible in some countries to utilise other forms of incentives and sanctions to bolster a weak legal system.

In many countries there are severe difficulties associated with the establishment of IRL policy integrity, credibility and collection, at the same time that there is an important economic case for charging tuition. Given this, both Johnstone and Aemero (2001) and Chapman and Nicholls (2003) suggest that it may be desirable to proceed with the imposition of up-front fees and scholarships instead of IRLs. The former, in particular, offer considerable scepticism with respect to IRLs in developing countries (see also Johnstone 2004).

Very recently, the government of Thailand has announced that it will be implementing in 2006 an IRL scheme similar to that of Australia's HECS. To

increase the likelihood of successful administration, a tax file numbering system has also been introduced. We watch this development with considerable interest.

## 6. SUMMARY

Market failure in the provision of resources for human capital investments is a critical issue for higher education financing policy. Given the presence of credit constraints associated with a lack of collateral to underwrite human capital investment borrowing, there is a case for government intervention. One typical way in which this issue is addressed takes the form of guarantees for bank loans.

However, there are important shortcomings with this approach, traceable to the fact that repayment obligations of loans of this form are insensitive to borrowers' future financial circumstances. There are two potential adverse implications for prospective borrowers: a lack of insurance against default, and hardships related to high variances in consumption streams. In addition, there might well be socially unproductive career choices made by graduates facing very high loan repayments. These problems promote for discussion other approaches to the capital market problem.

IRLs offer a potential solution. Their essential benefits are that, if properly designed, they can both eliminate the prospect of default and provide consumption-smoothing. There are several quite different forms: risk-pooling, risk-sharing, graduate taxes and human capital contracts.

IRLs with risk-pooling are characterised by high levels of adverse selection in terms of who chooses to be involved in such schemes, and moral hazard with respect to the labour/leisure choice once the repayment period begins. These problems seem to be severe enough to eliminate this form of an IRL as a viable policy solution.

IRLs with risk-sharing can avoid these problems and, in conceptual terms, seem to offer the most favourable prospect for IRL policy reforms. But the design characteristics of this form of IRL are critical for policy: greater insurance and consumption-smoothing for borrowers impose higher costs on taxpayers.

GTs have little prospect of allocative efficiency because there are no economic benefits delivered to institutions from price competition. However, GTs offer what is arguably the most progressive basis of the collection of charges. GTs do not yet exist.

HCCs involve risk-sharing – with the risk burden being assumed by the lender – and are more a form of equity than they are debt. There are now several examples of operating HCCs, and a burgeoning research literature (see particularly Palacios 2004; and Carver 2004).

In mature economies there are many recent applications of IRLs for higher education. Just about all of them take the form of risk-sharing, with the public sector bearing the borrowing risks. The experience of this form of IRL, documented best for Australia, has been argued above to be favourable.

There are no national risk-pooling loans, nor is there yet an example of a GT. HCCs are just being implemented, but their incidence thus far is not significant.

Consideration of the case for IRL approaches to higher education financing needs to take into account the fact that there is not yet available a great deal of information or analyses of these forms of policy intervention.

However, some lessons are already clear. One is that IRLs of the risk-pooling variety seem destined to fail, and this can be traced to the adverse selection and moral hazard issues raised by Nerlove (1975) and others. Two, analysis of risk-sharing IRLs suggests that the introduction of tuition collected in this way has not been associated with adverse consequences for the access of the poor. This result is not necessarily because of the loan collection form however, since charges collected in other ways might also have had no adverse implications for the enrolment of poor students (see other chapters in this volume).

An essential lesson for public policy is that collection, design and information issues are critical to the acceptance and success of loan schemes. The US scheme has not worked due in part to problems in these areas. On the other hand, the administration costs of HECS are low, and this arguably will be the case for IRLs implemented in most mature economies. This is far less likely to be true for developing countries.

## NOTES

- 1 The notion of IRLs has been in the literature for quite a while, it being 'new' only in the context of implementation (Johnstone 1972a; Friedman 1955).
- 2 Eligibility for Canada Student Loans, for example, is determined in part by an assessment of needs, and loans have been made available to less than half of the student population (Finnie and Schwartz 1997).
- 3 The Clinton IRL policy initiative is analysed in detail below.
- 4 The Yale Plan is examined in more detail below.
- 5 The point is made in different terms by Johnstone (1972b).
- 6 In Australia, student income support takes the form of means-tested grants.
- 7 A point emphasised by Bruce Johnstone in private communication (November 2004).
- 8 This view can be sourced to private conversation with Australian tax authorities exploring the comparative costs of the two policies. Also, direct comparisons of administration costs and loan revenues from government reports support this view (Warner 1999; and the Australian Department of Education, Science and Training Budget papers).
- 9 Jackson (2002) argues that the annual administrative costs are less than 2 per cent of the total value of loans distributed. The more important figure however would be costs as a proportion of revenues collected; data not reported.
- 10 HECS will involve a change towards universities receiving charge finances directly in 2005.
- 11 This is very much higher than the repayment proportions of taxable income required in the IRL schemes of Australia and New Zealand, for example, of around 3–6 per cent of taxable incomes.
- 12 It should be noted that the response rate of the survey of around 30 per cent was very low, raising the possibility that the data are an inaccurate reflection of general views concerning the scheme.
- 13 This number reflects collection for other types of loans as well, so the collection amount for only the income contingent ones could be different.
- 14 The discussion in this section follows closely Chapman and Greenaway (2003).
- 15 These arguments were part of the explicit policy debate in Australia (Chapman 1997), New Zealand (Warner 1999) and the UK (Barr 2001).
- 16 Kenneth Boulding, unpublished lecture, Harvard University, 1972 (as recalled by Glenn Withers pers. comm., 1975).
- 17 It should be recognised that the first three conditions apply also to the successful implementation of commercial bank loan arrangements.

## REFERENCES

- American Bar Association. "Lifting the Burden: Law Student Debt as a Barrier to Public Service." Final Report of the ABA Commission on Loan Repayment and Forgiveness. Chicago, Illinois: ABA Commission on Loan Repayment and Forgiveness, 2003.
- Arrow, K.J. "Higher Education as a Filter." *Journal of Public Economics* 2.3 (1973a): 123–132.
- Arrow, K.J. "The Theory of Discrimination." In Ashenfelter, O. and A. Rees (eds). *Discrimination in Labor Markets*. Princeton, NJ: Princeton University Press, 1973b, 3–33.
- Barr, Nicholas. *Student Loans: The Next Steps*. London: Freedom Press, 1989.
- Barr, Nicholas. *The Welfare State as Piggy Bank*. Oxford: Oxford University Press, 2001.
- Brody, Evelyn. "Paying Back Your Country Through Income-Contingent Student Loans." *San Diego Law Review* 31.2 (1994): 449–518.
- Cameron, S. and J. Heckman. "The Dynamics of Educational Attainment for Black, Hispanic and White Males." *Journal of Political Economy* 109 (2001): 455–99.
- Camhi, Rosita and Rosana Latuf. "Evaluacion del Sistema de Ayudas Estudiantiles a la, Educacion Superior." *Informe Socia Libertad y Desarrollo*, Santiago de Chile, 2000.
- Carneiro, P. and J.J. Heckman. "The Evidence on Credit Constraints in Post-secondary Schooling." *Economic Journal* 112.482 (2002): 705–730.
- Carver, A. "Income Collateralized Loans: Market and Policy Explorations." PhD dissertation, Stanford University, Stanford, CA, 2004.
- Chapman, Bruce. "Conceptual Issues and the Australian Experience with Income-Contingent Charges for Higher Education." *Economic Journal* 107 (1997): 738–751.
- Chapman, Bruce. "Income Contingent Loans for Higher Education: International Reforms." In Welch, Finis and Eric Hanushek (eds). *Handbook of the Economics of Education*. North-Holland, forthcoming.
- Chapman, Bruce and David Greenaway. "Learning to Live With Loans? Policy Transfer and the Funding of Higher Education." Paper presented at the Internationalisation and Policy Transfer Conference, Tulane University, New Orleans, LA, 11–12 April, 2003.
- Chapman, Bruce and Jane Nicholls. "Income Contingent Loans for Higher Education: Implementation Issues for Developing Countries." Washington, DC: The World Bank, 2003.
- Chapman, B. and C. Ryan. "Income Contingent Financing of Student Charges for Higher Education: Assessing the Australian Innovation." *The Welsh Journal of Education* Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 64–81.
- Chia, T.T. "Returns to Higher Education in Australia." PhD thesis, Economics Program, Research School of Social Sciences, Australian National University, Canberra, 1990.
- Clinton, President William J. Radio Address to the Nation, 1 May 1993.
- Dearing Report. "Higher Education in the Learning Society." Report of the National Committee of Inquiry into Higher Education, chaired by Sir Ron Dearing. London, UK: HMSO, 1997.
- Dynarski, Mark. "Who Defaults on Student Loans? Findings From the National Post Secondary Student Aid Study." *Economics of Education Review* 13.1 (1994): 55–68.
- Eaton, J. and H.S. Rosen. "Taxation, Human Capital and Uncertainty." *American Economic Review* 70.4 (1980): 705–715.
- Feldman, Roger. "Some More Problems with Income-contingent Loans: The Case of Medical Education." *Journal of Political Economy* 84.6 (1976): 1305–1311.
- Finnie, Ross and Saul Schwartz. *Student Loans in Canada: Past, Present and Future*. Toronto: C.D. Howe Institute, 1997.
- Friedman, Milton. *Capitalism and Freedom*. Chicago: University of Chicago Press, 1955.
- Greenaway, D. and M. Haynes. "Funding Higher Education in the UK: The Role of Fees and Loans." *Economic Journal* 113.485 (2003): F150–F166.
- Grout, Paul. "Education Finance and Imperfections in Information." *Economic and Social Review* 15.1 (1983): 25–33.
- Harding, A. "Financing Higher Education: An Assessment of Income-Contingent Loan Options and Repayment Patterns Over the Life Cycle." *Education Economics* 3 (1995): 173–203.
- Ishengoma, J.M. "Financing Higher Education in Post-Apartheid South Africa: Trends, Developments, and Challenges Ahead." *The International Comparative Higher Education Finance and Accessibility Project*, Buffalo, NY: State University of New York at Buffalo, 2002.

- Jackson, Roy. "The South African Student Assistance Scheme." *Welsh Journal of Education* 12.1 (2002): 82–94.
- Johnstone, D. Bruce. *A New Approach to Financing Higher Education: Income Contingent Loans*, New Haven: Yale University Press, 1972a.
- Johnstone, D. Bruce. "The Role of Income-Contingent Loans in Financing Higher Education." *Educational Record* 53 (1972b): 161–168.
- Johnstone, D. Bruce. "The Applicability of Income Contingent Loans in Developing and Transitional Countries." *Journal of Educational Planning and Administration* (New Delhi, India) 18.2 (2004): 159–174.
- Johnstone, D. Bruce and Abebuyehu Aemero. "The Applicability for Developing Countries of Income Contingent Loans or Graduate Taxes, with Special Consideration of an Australian HECS-type Income Contingent Loan Program for Ethiopia." The International Comparative Higher Education Finance and Accessibility Project, Buffalo, NY: State University of New York at Buffalo, 2001.
- Kane, Thomas and Cecilie Rouse. "The Community College: Educating Students at the Margin Between College and Work." *Journal of Economic Perspectives* 13.1 (1999): 63–84.
- Kramer, John R. "Will Legal Education Remain Affordable, By Whom, and How?" *Duke Law Journal* 240 (1987): 242–268.
- Leiva, Alicia. "El Financiamiento Estudiantil para la Educacion Superior." *Colección Ideas* 3.21 (2002) Santiago: Fundacion Chile 21.
- Levhari, D. and Y. Weiss. "The Effect of Risk on the Investment in Human Capital." *American Economic Review* 64.6 (1974): 950–963.
- Lincoln, Ian and Arthur Walker. "Graduate Taxes as an Answer to Higher Education Financing." *Education Economics* 1.3 (1995): 211–226.
- Maani, Sholeh A. and Adam Warner. "The Economic Implications of Tertiary Fee Rises in Relation to Student Welfare and the Policy Environment." Report to the University of Auckland Council, Auckland, July, 2000.
- Moen, Espen R. "Efficient Ways to Finance Human Capital Investments." *Economica* 65 (1998): 491–505.
- Morris, Martin. "Student Aid in Sweden: Recent Experience and Reforms." In Woodhall, M. (ed.). *Financial Support for Students: Grants, Loans or Graduate Tax?* London: Kogan Page, 1989, 89–109.
- Nerlove, Marc. "Some Problems in the Use of Income-contingent Loans for the Finance of Higher Education." *Journal of Political Economy* 83.1 (1975): 157–183.
- Palacios, Miguel. *Investing in Human Capital: A Capital Markets Approach to Student Funding*. Cambridge: Cambridge University Press, 2004.
- Paroush, J. "The Risk Effect and Investment in Human Capital." *European Economic Review* 8 (1976): 339–347.
- Psacharopoulos, G. *Returns to Education: An International Comparison*. Amsterdam: Elsevier Scientific Publishing Company, 1973.
- Psacharopoulos, G. "Returns to Education: A Further International Update and Implications." *Journal of Human Resources* 20.4 (1985): 583–597.
- Quiggin, J. "The Welfare Effects of Income-contingent Financing of Higher Education." Working Paper No. 428. Canberra: Faculty of Economics, Australian National University, 2003.
- Raymond, Richard and Michael Sesnowitz. "On the Repayment Burden of Income-Contingent Student Loans." *Public Policy* 24.3 (1976): 423–436.
- Schrag, P.G. "The Federal Income-Contingent Repayment Option for Law Student Loans." *Hofstra Law Review* 29 (2001): 733–862.
- Warner, Adam. "Student Loans in New Zealand." Master of Commerce thesis, University of Auckland, Auckland, 1999.

CLAIRE CALLENDER

## ACCESS TO HIGHER EDUCATION IN BRITAIN: THE IMPACT OF TUITION FEES AND FINANCIAL ASSISTANCE

### 1. INTRODUCTION

In 2000–01, around a third of young people in England and Wales entered full-time higher education – twice as many as a decade ago and nearly seven times as many as 40 years ago. So now young people from all socio-economic groups are more likely to go to university. Yet, those from disadvantaged backgrounds remain under-represented, especially young white men. In 2001, nearly four in five students from professional backgrounds studied for a degree compared with just 15 per cent from unskilled backgrounds. This inequality in representation has persisted over the last 40 years despite the expansion of higher education and the large increase in participation rates.

Detailed analysis of changes in participation since 1990 confirms that the absolute growth of students from disadvantaged areas – using most measures – is not as great as for those from advantaged areas (HEFCE 2005). In addition, the relative participation rates of students from advantaged and disadvantaged backgrounds have widened (Galindo-Rueda, Marcenaro-Guiterrez and Vignoles 2004; Blanden and Machin 2004; Machin and Vignoles 2004). Thus access to university has become more strongly connected to parental income and social class in the last decade. The key beneficiaries of higher education expansion, therefore, have been children from the middle classes rather than poorer children.

This inequality in representation, and its negative consequences for both economic efficiency and social justice, lies at the heart of the UK government's higher education policies and initiatives since coming to power in 1997. It is the cornerstone of the government's most significant higher education policy document – the 2003 White Paper *The Future of Higher Education* – and is the foundation of its desire to widen participation in higher education, now symbolised by the government's pledge to increase participation to 50 per cent of 18–30 year olds by 2010 (DfES 2003a). As the current Secretary of State for Education recently wrote in a paper to his backbench MPs:

At the heart of Government education policies is the belief that people with aspiration and talent, irrespective of background, must have the opportunity to get on in life ... We should not put a cap on ambition. Opportunity must be open to all (Clarke 2004).

Arguably, the most significant policy mechanisms used for funding and encouraging this increased and widened participation have been the reforms of

student financial support. However, this chapter will argue that the 1998 Teaching and Higher Education Act, which introduced tuition fees and replaced the student maintenance grants with loans, along with elements of the 2004 Higher Education Act, especially variable tuition fees, is inconsistent with the government's commitment to widening access and fairness in educational opportunities. Ultimately, these legislative changes potentially undermine the government's policy objective of widening access and participation.

This chapter starts by examining these policy changes in more depth. It explores their effects on private and public contributions to higher education, as reflected in the changing nature of students' sources of income, and highlights some of their consequences. Then the chapter reviews the key barriers to university entrance, especially for young people from low income families. This includes a discussion of financial matters and the extent to which debt is a deterrent to university entry, by calling upon the findings of a recent study on prospective students' attitudes to debt. The following section focuses on the impact of changes in student financial support on current students' participation in higher education concentrating on the role of financial concerns. The chapter concludes by exploring some of the intended and unintended consequences of the reforms of student funding on the government's widening participation agenda.

The chapter focuses on full-time, home undergraduate students in Britain. In Britain, unlike other countries, universities and higher education policy make a strong distinction between full- and part-time students.<sup>1</sup> It intentionally excludes any discussion of both non-UK research, as this is covered elsewhere in this book, and research about international students studying in Britain. It tends to concentrate on younger rather than mature students, in part because most of the research confines itself to this group as the vast majority (well over three-quarters) of full-time undergraduate entrants are under the age of 20.

## 2. STUDENT FUNDING POLICIES

### *2.1. The Changing Nature of Student Funding Policies*

Between 1962 and the late 1980s there were few significant changes in full-time student funding and support policies.<sup>2</sup> Undergraduates' tuition fees were paid by the state. Their living costs were covered by a combination of state funded means-tested maintenance grants, so that the amount students received depended on their family income;<sup>3</sup> social security benefits; and contributions from their parents of at least up to the maximum grant available.

Student loans were first introduced in 1990 by the Conservative government. They were made available to all full-time higher education students, irrespective of their family income, at a zero real rate of interest. They were repaid over a five-year period after graduation, once graduates were earning 85 per cent of national average earnings.

The aim of the 1990 changes was to reduce students' reliance on maintenance grants as their major source of income while establishing loans as a significant

supplementary income source. Consequently, student grants were frozen at nominal 1989–90 levels. As the real value of the grants was eroded by inflation, the shortfall was made up by an increase in the value of student loans. A further annual devaluing of the grants meant that by 1996–97 the grants and loans were worth about the same. In addition, in 1990, students' eligibility for social security benefits was severely limited.

The Labour government announced its first set of changes to student support arrangements in July 1997, shortly after coming into office. The 1998 Teaching and Higher Education Act (Part II) and subsequent regulations enacted most of these.

Most importantly the Act:

- introduced means-tested tuition fees for new entrants – so today 45 per cent of students do not pay any fees, 20 per cent pay a partial contribution, and 35 per cent pay the full maximum fee – currently £1150;
- abolished mandatory grants for living costs for new entrants and replaced them entirely with student loans. The loans were means-tested for the first time whereby students from low income families could receive 100 per cent of the loan while students from wealthier families were eligible for only 75 per cent; and
- established a fairer income contingent method for repaying loans without any time limit, reduced the repayment threshold to £10,000, but left untouched the zero real rate of interest on repayments. In reality, this meant that graduates with incomes over £10,000 a year had to pay an additional nine per cent in tax, until they had paid off their student loan.

Mr Blunkett, the then Secretary of State for Education, when introducing the Act emphasised the government's commitment to widen access particularly for students from lower income families. He declared that:

The Act puts in place new funding arrangements for higher education designed to address the funding crisis we inherited. It modernises student support in higher education in a way that is fair to individual students and their families. Savings from the new arrangements will be used to improve quality, standards and opportunities for all in further and higher education (DFEE 1998).

Elsewhere he commented:

The new system of student support balances the contributions made by individuals and the community as a whole. It is more progressive than in the past, and it directs resources to those who need them most. Critically, it secures an income stream for higher education of fee contributions and loan repayments, which underpins expansion and the widening of opportunities (Blunkett 2000: § 70).

The next major change in student funding was the 2004 Higher Education Act. The most important changes are:

- in 2006, the introduction of variable tuition fees of up to £3000 to be repaid after graduation, via student loans. These fees will no longer be means-tested, so all students will have to pay fees;
- in 2004, the introduction of a means-tested Higher Education Grant initially set at £1000 but which will rise to £2700 once tuition fees are introduced;
- a rise in the student loan repayment threshold to £15,000;
- student debt to be written off after 25 years;
- all universities that charge the maximum tuition fee of £3000 must pay a minimum bursary of £300 to low income students and are to be encouraged to give above the minimum; and
- an Office for Fair Access to be set up which will be responsible for developing access agreements with universities before they can charge the maximum tuition fee.

According to the government, these changes in student financial support and the introduction of variable fees, “Taken together ... will help ensure that, in future, everyone who has the ability to participate in Higher Education is able to do so” (DfES 2003a: 4).

Commenting on the passing of the third reading of the Bill on 31 March 2004, the Secretary of State for Education, Charles Clarke said:

The Bill – guarantees more resources for universities that will open and strengthen access to universities and that will ensure that people from the poorest communities in the country get a fair crack in our society.

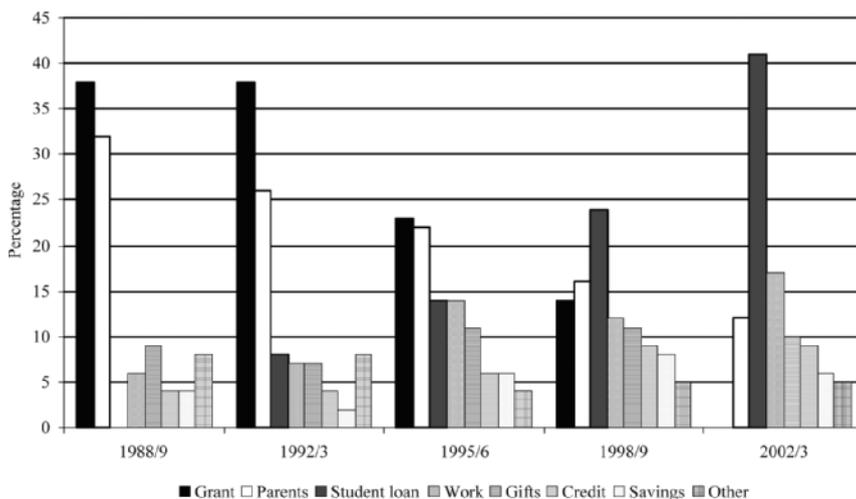
And when the Bill received royal assent in July 2004 he claimed (DfES 2004a):

The Act will allow us to maintain our world class university education, while at the same time protecting access for students from poor backgrounds – Higher education will be free at the point of entrance and fair at the point of repayment, a fair and affordable option for students from all backgrounds.

Thus, we can see how the reforms of student funding in 1998 and 2004 are inextricably linked to the government’s commitment to widening participation, and are central to the achievement of that aim.

## *2.2. The Impact of Changing Student Funding Policies on Students’ Sources of Income*

Overall, the reforms since 1990 have transformed who shoulders the financial burden of going to university with a shift from the state to students, and from students’ families to students themselves. In other words, they have altered the balance between private and public contributions to higher education, in favour of the former. These shifts are very well illustrated by the changing composition of students’ income (figure 1). In turn, these changes highlight some of the more immediate consequences of the reforms of student funding policies, and point to the potential impact of some of the provisions in the 2004 Act.



Source: Adapted from Callender and Wilkinson 2003

*Figure 1. Students' changing sources of income*

The data in figure 1 are drawn from the Student Income and Expenditure Survey (SIES), which the Department for Education commissions every 3–4 years. I undertook the most recent 2002–03 survey and those conducted in 1995–96 and 1998–99. The surveys consist of face-to-face interviews with a national representative sample of full-time undergraduate students – 2000 in 1995–96 and 1998–99, and 1249 in 2002–03. The 2002–03 SIES was restricted to students studying in England and Wales aged under 25 and so the following analysis applies to these students only.

As figure 1 clearly indicates, the proportion of students' total income derived from student loans has increased over time while their income from maintenance grants has fallen. So too has the proportion of their income received from their parents. For instance, since 1998–99 it has fallen by 18 per cent in real terms. These most recent falls are associated with the introduction of tuition fees and the abolition of student grants following the 1998 Teaching and Higher Education Act. As parents had to pay for tuition fees they reduced the amount they gave their children for living costs. Furthermore, with the abolition of grants, some students no longer needed to rely so much on their parents for financial support because they could get larger student loans (Callender and Wilkinson 2003).

In 2002–03, students from the highest social classes received well over twice as much financial support from their parents as those from the lowest social classes (£1593 compared with £701). However, wealthier students have experienced greater falls in parental contributions in real terms compared with their poorest peers. Since 1998–99, their income from their families has fallen by 20 per cent, which they

made up by a 19 per cent increase in income from student support. By contrast, students from the lowest social classes have seen their income from their families rise by two per cent while their income from student support rose by just five per cent. Thus, the main beneficiaries of the move from grants to loans, particularly since the 1998 Teaching and Higher Education Act, are wealthier students. Student loans have been a subsidy for the middle classes.

Moreover, the abolition of maintenance grants and their replacement with student loans in 1998 have been regressive. For the poorest students, the real value of both their student support and their families' private contribution has risen slightly. Their situation is also worse because their income from public funds was provided by a repayable loan rather than a grant. Consequently, the amount of government subsidy they received has fallen: the subsidy on student loans is estimated to be about 45 per cent (Barr and Falkingham 1996) compared to the 100 per cent on grants. By contrast, for the wealthiest students, the real value of their student support has risen sharply but their families' private contribution has fallen. They have had a net gain, since they were not entitled to a maintenance grant, yet the loan, which is subsidised by the state, was only partially means-tested.<sup>4</sup> These changes are completely contrary to the government's commitment to redistribute the costs of higher education in a fair and equitable way, and to give support to those who need it most (DfES 2003a).

Overall, students' increasing reliance on student loans is indicative of a shift from public to private contributions to higher education. With the phasing out of grants, more students are taking out student loans and borrowing larger sums of money for their living costs. Between 1995–96 and 1998–99, loan take-up rose from 59 per cent to 71 per cent, and by 2002–03 to 81 per cent. Between 1995–96 and 2002–03, the average size of the loan more than doubled from £1252 to £3150 (DfES 2004b). With their growing value, student loans also form a larger share of students' total income – nearly a half in 2002–03 compared with under a third in 1998–99 and a seventh in 1995–96 (Callender and Wilkinson 2003; Callender and Kemp 2000).

Student loans make up the majority of all student borrowings. In 2002–03 they constituted 85% of all students' outstanding debt, up from 74% in 1998–99. Thus, a lower proportion of students' total borrowings is now derived from commercial sources of credit and overdrafts. However, the average amount of money students borrow from these sources has risen threefold since 1998–99. Inevitably, with more students taking out student loans and borrowing larger sums, student debt has escalated. Some 92 per cent of students graduating in 2003 left university with debts compared with 81 per cent in 1999 and 75 per cent in 1996. The average debt of students graduating in 2003 amounted to £8666. This was two and a half times more than the debts of those who graduated in 1998, and three and a half times more than those who graduated in 1996 (Callender and Wilkinson 2003; Callender and Kemp 2000).

But debt is unequally distributed. Students who are poor before going to university are more likely to be in debt and to leave university with the largest debts, while better-off students are less likely to have debts and leave with the lowest debts. Students graduating in 2003 whose parental annual income was less than

£20,480 owed an average of £9708, and half owed more than £10,392. Students with parental incomes over £30,502 owed just £6806. So, the poorest students were 43 per cent more in debt than the richest (Callender and Wilkinson 2003). Clearly, student loan debt affects the most financially vulnerable students most of all.

A further move in students' income, linked to policy changes, is their increasing reliance on part-time employment. More students are working than ever before and they are working longer hours. This development and its effects will be discussed in more detail later in this chapter. Here it is most important to note how, since the 1998 Teaching and Higher Education Act, students' earnings have increased by 48 per cent above changes in real earnings so that by 2002–03 they constituted 20 per cent of students' total income compared with 14 per cent in 1998–99. So now students' earnings form a much higher share of their total income and have overtaken regular parental contributions as the second most important source of income. This is another example of how the private contribution to higher education has increased, and the costs of going to university have shifted more on to individual students. However, again this contribution is greater for students from low income families than their most affluent peers, as they are more likely to engage in term-time employment and to work the longest hours (Callender and Wilkinson 2003).

The final shift in students' finances, associated with the student funding policies, is the growing shortfall between their income and their expenditure, arising in part from the inadequate level of student loans. In 2002–03, students' total average income over the academic year amounted to £5513 while their total expenditure was £6897. Since 1998–99, their expenditure has risen twice as fast as their income in real terms. One result of this growing gap is student financial hardship. When students' incomes are compared with national data from the Household Below Average Income series, 43 per cent of students had what the government defines as poverty incomes. Twice as many students were at risk of poverty incomes as similar households in the general population. Those most at risk came from the poorest families (Callender and Wilkinson 2003).

### 3. BARRIERS TO HIGHER EDUCATION ENTRY

The British government sees the three principal barriers to young people's higher education entry as their attainment, their aspirations, and their lack of information and appropriate knowledge about the options available to them (DfES 2003b). Each of these will be examined in turn because they form a vital backdrop for understanding the impact of student funding policies on widening and increasing access.

#### *3.1. Academic Attainment and Staying On Rates*

The expansion of higher education since the mid-1980s is strongly associated with the increase in young people staying in education after the compulsory school leaving age. This in turn is associated with the reform of the public examination system for 16 year olds in 1988. For instance, for 17–18 year olds this has risen from

36 per cent in 1979 to 73 per cent by 2003. However, these staying on rates vary considerably by young people's family background. In 2003, just under a half of students whose parents' had routine jobs were in full-time education at the age of 17, compared with 81 per cent with parents in high professional jobs (DfES 2003c). By the age of 19, only 12 per cent of young people with parents in routine jobs had A/AS levels – the gold standard of higher education entry qualifications in England and Wales – compared to 59 per cent with parents in professional jobs (DfES 2003d).<sup>5</sup> Clearly, the socio-economic gaps in young people's staying on rates and attainment help explain the socio-economic gap in university entry, described in the introduction. How well young people do in school and in further education, and in their A-levels in particular, is the key determinant of whether they go on to higher education. However, these differences in attainment and staying on rates, in turn, are associated with disadvantage. Hence, as Forsyth and Furlong (2000) have suggested, when analysing access to university, there is a need to distinguish between the factors that qualify young people for higher education, and those that predispose them to attend.

Interestingly, one of the most successful recent initiatives that have improved the staying on rates of young people has been the introduction of means-tested Educational Maintenance Allowances (EMAs) available nationwide to 16–18 year olds since 2004. EMAs were designed specifically to change student behaviour, and to act as a financial incentive to improve initial access, retention and achievement levels and have successfully raised participation rates in post-16 education (Ashworth et al. 2001; Middleton et al. 2004). The evaluation of the EMA pilots confirms that financial incentives work, and can affect access and participation. This is in marked contrast to student loans for higher education students, which, as discussed below, act as a disincentive. Both sets of policies call upon market principles. However, the EMA policy utilises market incentives for public purposes, and to serve the public good. By contrast, higher education student funding policies call upon the rhetoric of private investment and private returns.

### *3.2. Aspirations and Social Factors*

In Britain there is considerable debate as to whether, and to what extent, students from disadvantaged backgrounds are equally likely as their more affluent peers to go to university, once they have achieved the relevant higher education entry qualifications. If young people's academic attainment cannot explain fully their under-representation in higher education, what else affects their entry? In other words, what are some of the factors that predispose young people to attend university?

According to the British government, apart from attainment, the other main barriers to access are young people's lack of aspirations, and their lack of information about the educational opportunities available (DfES 2003b). There is little doubt that these factors are important. Many working class young people do not aspire to university because they do not see it as a place for them (Archer, Hutchings and Ross 2003). They reject its culture and values and see higher

education as something 'alien' and 'middle class'. They often are unconvinced of its benefits, especially the promise of its long-term financial returns (Callender 2003). Instead, they have other ambitions and desires, and are particularly drawn to the labour market, and to vocational qualifications rather than a degree (Connor et al. 2001; Callender 2003).

However, there is a danger that this type of discourse, with its emphasis on young people's 'poverty of aspirations', undervalues and undermines the aspirations they do have. In addition, it can have the effect of pathologising individuals and locating their lack of aspiration for university entrance, and the concomitant lack of self-esteem, as individual problems or personality defects. In other words, it tends to ignore the structural factors and inequalities which influence their aspirations. Moreover, it overlooks a large number of studies that have pointed to the complex social, economic and cultural factors and inequalities underpinning working class educational 'choices'.

Research into participation of excluded populations in post-compulsory education has emphasised the complex choice processes involved. Typically these processes involve interactions between age, social class, gender, ethnicity, place and family. This research has identified a shift from 'normal' to 'choice' biographies (Du Bois-Reymond 1998; Ball, Maguire and Macrae 2000; Dwyer and Wyn 2001; NAO 2002; Connor et al. 2001; Forsyth and Furlong 2000; Archer and Hutchings 2000). 'Normal' working class biographies have often meant that university was a non-choice, an option that lay outside normal social landscapes. Economic and social transformations have generated new 'choice' biographies whereby higher education increasingly becomes something that has to be decided upon, even if this means refusal and rejection (see also Giddens 1991; Beck 1992; Beck, Giddens and Lash 1994).

Further, this research details the way these 'choice' biographies often involve complex negotiations between family, work and friendship commitments. These negotiations highlight the way learner identities are not necessarily dominant features of these young people's lives. As Ball, Maguire and Macrae (2000: 24) have suggested:

Identity is social and culturally 'located' in time and space and inflected by rejection, displacement and desire. Post 16 'choices' are bound up with the expression and suppression of identities.

Hence, the degree to which individuals can engage with this kind of choice is likely to be structured both by cultural frames of reference and the different 'opportunity structures' in varying locales. Students from excluded populations have been found to engage in processes of class and ethnic choosing, where the degree of cultural or ethnic symmetry or mix is of considerable importance in making higher (and further) education a realistic choice (Gorard 1997; Gorard et al. 1998; Ball, Reay and David 2002; Ball et al. 2002; Reay et al. 2001). The possibility to engage in such choosing will vary depending on the 'opportunity structures' within different locales (Roberts 1995). Drawing on research into choice processes in compulsory education in England (Gerwitz, Ball and Bowe 1995), it is possible that these different 'opportunity structures' are differentiated through local circuits of further

and higher education that are closely correlated with class and ethnicity, where choice reproduces status differentiation within the higher education sector.

Thus, these studies highlight the equity issues regarding access to higher education and how prospective students may be denied entry because they come from disadvantaged backgrounds. They suggest that differently classed educational routes and choices reflect unequal access to cultural, social and economic capital (Reay et al. 2001). Differential positions in relation to risk/privilege may constrain and shape the options and choices that are possible and thinkable for young people. Hence, structural inequalities limit the diversity of options open to young people from particular social locations (Ball, Maguire and Macrae 2000).

### *3.3. Information*

Another factor highlighted by the government as thwarting widening access is students' lack of information. Here the issue is one of efficiency. The government's main concern is that potential students are not making informed choices about which university to attend or what course to take. In particular, the government claims that students do not know:

... enough about the alternative universities and courses to put in an application to an institution which can satisfy the potential student's aspirations, and for which the student has the appropriate qualifications and qualities (DfES 2003b: 5).

The focus, therefore, is not so much on barriers to higher education entry, but rather on which higher education door students enter. And this concern is justified, given the hierarchical nature of the British higher education sector. Students from the lowest social classes are under-represented at the most prestigious universities while those from the highest social classes are over-represented, even when controlling for academic ability. For instance, the chances of a young person getting in to one of the top 13 universities in the UK is approximately 25% greater if they attended a private school than if they came from a lower social class or lived in a poor area (Sutton Trust nd). According to the government, this is primarily because students from lower socio-economic groups are less likely than their more affluent peers to apply to the best universities rather than due to unfair admissions policies (DfES 2003b). And in turn, the government relates this failure to apply to low aspirations.

This trend is especially marked among students from minority ethnic groups who are far more likely to attend university than similar white students. For instance, about 16 per cent of home (domiciled) undergraduates in England are from minority ethnic groups but minority ethnic groups make up just over nine per cent of the whole population of England. Yet, these students are over-represented in the least prestigious universities and are more likely to be taking full-time sub-degree courses than their white peers, which in part is associated with discriminatory admissions procedures (Connor et al. 2004).

However there is evidence that students, especially those from the lowest social classes, lack the information and guidance to make the right choices about what to study and where (Callender 1997; Connor et al. 1999). And indeed, the government

is committed to improving the provision of information to tackle the socio-economic gradient with respect to the extent to which students are well informed (DfES 2003a). However, arguably, information is required not only on the diverse nature of higher education provision, but also on the benefits of higher education as this is likely to influence decisions about university entry. Thus there are both efficiency and equity arguments for filling these information gaps.

Again, research shows that potential students, especially those from lower socio-economic groups, lack information about the benefits of higher education, its costs, and the nature of student support available – all areas which are necessary to make a rational decision about the value of higher education and to inform any decision about whether or not to enter higher education. Also, young people from lower social classes have greater difficulties accessing information (Callender and Kemp 2000; Connor et al. 2001; Callender 2003). However, although there is a very strong correlation between poor levels of knowledge and the decision not to enter higher education, it is impossible to determine the direction of causality. In other words, an information gap may contribute to prospective students' decision not to enter university. Alternatively, non-entrants may have poor levels of knowledge because they do not need the information, as they have no intention of going to university. In reality, probably both happen.

Access to information, knowledge and awareness of the benefits of higher education and student financial support, however, raise broader issues about both the dissemination of knowledge and flows of information and, in turn, about respondents' cultural and social capital. The above discussion assumes that having information and the correct sort of information is central to decision making. This assumption underpins key aspects of the way the market is presented in government education policy. However, this idea has been challenged because it ignores the whole context within which decisions and choices are made, and the notion that information is not neutral. As Hutchings (2003: 98) has observed:

... the relationship between information and decision-making appears much less straightforward than is assumed ... People having access to identical information about higher education may construct it to come to entirely different decisions about whether or not to apply to university. These reflect their perceptions of the providers of the information, as well as a whole range of contextual and identity factors.

Hutchings (2003) highlights three reasons why working class young people are less well informed about higher education compared with those from middle class families. First, they know fewer people who have experienced higher education, as they are less likely to have family members who have been to university. Second, their schools and colleges provide less information because there are no assumptions that they will continue on to higher education, unlike schools populated by middle class students. Thirdly, the information working class prospective students need is different and more complex compared with the needs of middle class prospective students. All three factors can lead to greater confusion or a limited understanding of the information and post-16 educational choices.

In addition, commentators have explored the way in which information is used in decision making, and how some sources of information are not trusted by certain

groups. They have made the distinction between ‘hot’ knowledge acquired through the grapevine, word of mouth and informal networks in contrast to ‘cold’ knowledge derived from official and formal sources such as government or higher education institutions (Gerwirth, Ball and Bowe 1995; Ball and Vincent 1998). Studies of prospective higher education students show that all of them used ‘hot’ knowledge to inform their decision making (Hutchings 2003; Callender 2003). However, students from low social classes rely more heavily on ‘hot’ knowledge, have greater trust in such sources, and are less likely to supplement it with ‘cold’ knowledge, unlike their wealthier peers. As a result, students from low socio-economic groups sometimes have more limited and confused information and misinformation. Moreover, Callender (2003) found that non-university entrants had networks reinforcing their rejection of higher education while entrants were surrounded by networks strengthening their decision to enter higher education.

### 3.4. *Economic Factors*

Implicit in much of the above discussion on attainment, aspirations and the information gap is the role of economic inequalities. A central issue, therefore, is the extent to which financial or liquidity constraints affect initial access to higher education.

There is a body of research examining the factors affecting young people’s access to higher education which highlights the importance of financial issues. These studies suggest that financial concerns play a major role in the decision-making process of whether or not to enter higher education (Connor et al. 1999; Knowles 2000; Connor et al. 2001; Davies and Williams 2001; NAO 2002; NatWest 2003; Forsyth and Furlong 2003; Archer, Hutchings and Ross 2003), and that the “overriding negative perception of going to university, for all the potential entrants, was its cost” (Connor et al. 2001: 19). Costs are often understood very broadly to include not only the direct costs of attending university, but also the opportunity costs in terms of lost earnings while at university (Connor et al. 2001). These findings, from studies of prospective students, are confirmed by their teachers. For example, a recent survey of school teachers and further education college lecturers with responsibility for applications to higher education revealed that the main factor dissuading or preventing able students from going on to university was concern about the financial effects of attending university (Keys, Mason and Kendall 2002).

Similarly, there is a consensus in this literature that prospective students from lower socio-economic backgrounds are more likely than those from better-off families to report they are deterred by the costs of higher education (Woodrow 1998, 2000; Watt 2000; Connor et al. 1999; Connor et al. 2001; Knowles 2000; Forsyth and Furlong 2000, 2003), as are mature students compared to younger students (Connor et al. 1999; Connor et al. 2001; Ross et al. 2002). However, the cost of studying is not necessarily the main reason that potential entrants decide *against* going to university, but just one of many reasons. Those not going to university are most often lured by the ‘pull’ of economic independence offered by employment.

### 3.4.1. Debt

Several studies cite fear of debt and the prospect of building up large debts, particularly student loan debt, as a deterrent to university entrance among qualified students, especially from low socio-economic groups (Forsyth and Furlong 2000, 2003; Connor et al. 2001; Archer, Hutchings and Ross 2003; Callender 2003). Moreover, they highlight students' complex web of attitudes towards money and strategies for debt avoidance in relation to participation in general (e.g. Forsyth and Furlong 2000, 2003; NUS 2003).

As we have seen, student indebtedness has risen dramatically as a direct result of the changes in student funding policies discussed above. Student debt, and its impact on access and participation, also was a recurring theme in the debates during the passage of the 2004 Higher Education Act, especially given the expected rise in debt following the introduction of variable tuition fees. This prompted the government (DfES 2003e: 9) to suggest that "... addressing issues of debt is just one way in which participation can be encouraged" and to claim that:

... the Government does recognise that perception of debt is an issue. This will need to be addressed by ensuring that there is accurate and easily assessable information about the student support package and the loan repayment scheme. There are also specific groups for whom debt is more of an issue than students at large: students from poorer backgrounds, lone parents and ethnic minorities for example. The student support package has been designed with these groups in mind (DfES 2003e: 9).

Yet, research assessing the potential effects of legislative changes, and the impact of earlier reforms of student funding policies including rising student indebtedness, is limited. In fact, there are no comprehensive studies in the UK that can systematically examine the impact of changes in student funding on university entry in a methodologically robust way. Such a study would need to be longitudinal, tracking individuals over time. It would need to compare those entering higher education with those who do not. It also would require detailed information on students' attitudes to student support and financial issues, as well as data on their financial circumstances, their academic ability, and a host of other socio-economic characteristics. The lack of suitable data sets to conduct such studies means that it is impossible to assess robustly the impact of student funding policies or increasing debt on prospective students' actual *behaviour*, choices and decision making. We do not know what the demand for higher education would have been had the student funding arrangements remained unchanged, so we cannot be certain as to what the real effect has been.

The absence of longitudinal data sets in Britain also means that it is not possible to reach any firm conclusions about the impact of debt on prospective students' behaviour. However, it is possible to explore potential students' *attitudes* and their stated intentions. Few studies have done this, or explored in depth the links between views on debt and university entrance (Lea, Webley and Bellamy 2001; NUS 2003). Nor have they tried to measure the impact of perceptions of debt on participation, or to estimate the probability of prospective students opting out of higher education because of their attitudes to debt.

These gaps prompted my recent study which aimed to assess the role of debt in students' higher education entry decisions, and to explore the unique contribution

debt and perceptions of debt may play (Callender 2003). The study involved a survey of prospective higher education students – final-year students in further education colleges and pupils in their final year at school, studying for qualifications that allow entry to higher education – and was conducted on a stratified random sample of schools and colleges throughout the UK in 2002. Data were collected using in-class self-completion questionnaires, handed out to pupils by teachers. Final data were weighted to the national profile of students by establishment type and qualification taken (for more details of the methodology see appendix I of Callender 2003).

The majority of respondents fell into the following separate categories: female (59 per cent); under the age of 25 (94 per cent); white (81 per cent); single (91 per cent); and childless (95 per cent). Just over half (55 per cent) came from families in the top three social classes while just over a quarter were from the lower three social classes. Two-thirds of all respondents were studying in the further education sector, which left just over a quarter of all those surveyed attending state secondary schools, and less than one in ten attending private schools. One of the biggest differences between respondents at the different types of educational institutions was their social class composition. Those studying in the private sector came from the wealthiest families; those in further education were from the poorest families.

Overall, nearly three-quarters of the students surveyed had decided to enter higher education and had already applied or intended to apply for a place. A further 12 per cent were still undecided. This left 15 per cent who had decided not to enter higher education. It is striking that the vast majority (98 per cent) of those going to private schools were opting in to higher education. Other groups most likely to apply were those from the higher social classes (80 per cent), non-white (90 per cent), over 21 (81 per cent), studying for A/AS-levels/Scottish Highers (86 per cent) and an Access course (93 per cent), and those A-level students with higher expected grades. Those most likely to opt out of university were from the lowest social classes (19 per cent), men (19 per cent), taking a vocational qualification (24 per cent), and studying in the further education sector (20 per cent). What role did debt play in these students' rejection of higher education?

To date, no studies in the UK have singled out students' attitudes towards debt per se, and attempted to quantify their impact on higher education entry. Nor have they adopted measures of debt which capture how students feel about debt and what it means to them. In our measures of debt, we tried to tap into deeply held beliefs about debt and money management in general, using validated indicators.<sup>6</sup> Two aspects of attitudes toward debt were measured: general levels of debt aversion and a more specific cost/benefit balance judgment concerning university. Together, they solicited from prospective university students some kind of balance of their perceptions of the debts they might accrue against their attitudes towards the short-term and long-term benefits of higher education.

Regression modelling techniques, which controlled for a number of factors including students' academic ability, were used to explore the overall relationship between attitudes towards debt and higher education entry decisions.<sup>7</sup> The results showed that debt averse students were five times more likely not to go to university than those with more relaxed attitudes to debt. Fear of debt was greatest among

students from the lowest social classes, and put them off going to university more than the better off, even when controlling for a range of other factors. In contrast, the class effect on the cost/benefit balance was not statistically significant once one added other explanatory variables into the regression model. Moreover, lower class students' debt aversion could not be subsumed within class-related pre-dispositions to higher education. It was a deterrent in its own right, even after controlling for students' aspirations and career/work objectives, the amount of encouragement they received from their families and friends, and a whole host of other socio-demographic variables. Fear of debt particularly deterred low income students undertaking vocational qualifications but not those taking A-levels.

More research is needed in order to more adequately control for educational achievement. This study was hampered because the only data available were predicted A-level grades, and there was only a small number of A-level students from lower income families. We simply were not able to assess whether debt aversion had a deterrent effect for those from poorer backgrounds studying for these qualifications.

Even so, these findings do demonstrate that debt does deter certain groups from going to university. The issue of debt aversion, therefore, cannot be wished away by policy makers. Nor can it be dismissed as "just a trite way of saying that people do not like borrowing" (Schwartz 2003: online). Moreover, debt aversion poses a dilemma for government because its student support policies are predicated on the accumulation of debt and thus detracts from the efficiency arguments associated with such funding policies. In addition, the findings have important implications for the government's widening participation policies as those most deterred lie at the heart of these policies. Only around 45 per cent of young people with level 3 vocational qualifications go on to university by the age of 21 compared with a 90 per cent entry rate among those with A-levels (Corney 2004). Hence, there is considerable scope for increasing higher education participation among the former, unlike the latter. In addition, such students tend to come from lower socio-economic groups than A-level students, and so by encouraging their higher education entry, participation could be widened rather than just increased.

#### 4. THE IMPACT OF THE CHANGES IN STUDENT FINANCES AND FINANCIAL SUPPORT ON STUDENT PARTICIPATION

In policy terms, it is paramount that we have an understanding of what shapes prospective students' initial access to higher education, and in particular the role student funding policies may play. This is because the British government's target of 50 per cent participation, which is driving many of its higher education policies, is concerned primarily with getting students through the higher education door, and not with which, or what, higher education door they enter. However, Forsyth and Furlong (2000) suggest that we should embrace the idea of levels of participation.

This includes not only the presence or absence of enrolment in a degree or diploma course, but also the nature of this course (how advanced or prestigious). To simply measure numbers of students from disadvantaged backgrounds entering higher

education may in fact mask further, more subtle or 'hidden' disadvantage (Forsyth and Furlong 2003: 221).

Forsyth and Furlong's research, and that of others, has pointed to the way in which students' concerns about the costs of higher education and worries about debt do not stop once students enter university. Rather, students exhibit a complex web of attitudes towards money and employ a range of strategies for debt avoidance. Indeed, our analysis of the students' changing sources of income gives some initial insights into how the student funding reforms have influenced student behaviour and the strategies they adopt. It is to these issues that we now turn, focusing on their impact on participation and attainment, especially for those most disadvantaged.

#### *4.1. Choice of University*

Financial issues have been shown to affect students' choice of higher education institution, the subjects they study, and their qualification aim. However, it is primarily students from disadvantaged backgrounds who have their choices constrained in these ways, unlike those from better-off families. For example, Forsyth and Furlong's (2000) study of disadvantaged young people concluded that their financial concerns and a desire to minimise student loan debts resulted in them enrolling in shorter, less advanced courses at less prestigious higher education institutions. Knowles (2000) too found that lower income students opted for vocational rather than academic courses for sub-degree qualifications rather than a degree, and shorter courses. Connors et al. (1999) also showed that higher education applicants from low income families were far more likely than those from high income families to consider shorter courses in response to the costs of higher education.

Arguably, one might expect that the changes in student funding arrangements would steer students from low income backgrounds away from less vocationally oriented courses towards courses which lead to more long-term financial security such as law, business studies, computing, etc. So by shifting more of the financial responsibility of higher education on to students and away from the state, the criteria by which students select courses would be transformed – away from 'intrinsic' goods to 'extrinsic' goods. However, where issues of choice and perceptions of risk interact: courses which are longer (such as medicine) and which require a greater investment in equipment on the part of the students may be seen as unattractive. The rational (maximising return) approach would be to opt for courses with minimum investment and maximum return, namely the shortest and cheapest courses. And the evidence suggests that this is exactly what low income students are doing.

#### *4.2. Living at Home While Studying*

Another strategy used by students to reduce the costs of higher education, and debt in particular, is living at home with their parents' while studying, which in Britain is atypical. Nationally, only about one in five students under the age of 25 live with their parents while attending university (Callender and Wilkinson 2003). Students can save well over an average of £1000 a year just on their housing costs by living at

home (Callender and Wilkinson 2003) while those studying in London can save over £2000 (Callender 2004). And usually these students are subsidised by their parents, in other hidden ways such as by eating at home.

In addition, there is mounting evidence that as the private costs of higher education rise, so too is the proportion of students opting to live at home or near their home. For instance, between 1998–99 and 2002–03 the proportion of younger students studying outside of London living with their parents rose from 16 per cent to 19 per cent while the proportion for those studying in London increased from 27 per cent to 39 per cent (Callender 2004).

Research shows that living at home similarly limits students' choices as they have to attend their local university, but it mostly affects low income students, those from ethnic groups and those studying in London (Callender 2004; Callender and Wilkinson 2003; Callender and Kemp 2000; Connor et al. 2001). Data for England and Wales show that the average distance between a student's home and the higher education institution they attend, is directly correlated to their social class and family income with students from professional families travelling the longest distances and those from unskilled the shortest (Callender and Wilkinson 2003; HEFCE 2001). Farr (2001) examined changes in the distance students travelled to higher education institutions between 1994 and 1999. He found that in 1999 students who travelled the shortest average distance (40 miles and below) were drawn from disadvantaged areas such as those with concentrations of public housing. Moreover, it was exactly this clustering of areas which had seen the greatest percentage decrease (around 20 per cent) of average distance travelled between 1994 and 1999.

Living at home particularly restricts the options of students from low income families living in regions with limited higher education provision (Forsyth and Furlong 2003). In Britain, there is nobody with the power or responsibility to oversee higher education provision and the range of courses offered, or to ensure adequacy of provision on a regional basis. Local subject supply in higher education has never been addressed either in allocation or planning terms. In other words, there is no national commitment to good comprehensive local undergraduate provision. As one commentator has observed:

For all the talk about a knowledge economy and the role of research in regional regeneration, there is no national strategy for higher education. Universities guard their independence and government is grateful to abdicate responsibility (Bhattacharyya 2004: online).

These issues have become all the more urgent with the recent closure of numerous university departments, especially in the sciences. The gradual disappearance of a wide range of subjects across parts of Britain is partly the result of a decline in demand for certain subjects and partly an unintended consequence of the government's move to concentrate research funding through the research assessment exercise. To ensure the highest research ratings in the next assessment exercise, and the additional funds that such ratings attract, universities are closing departments with poorer research records, even where student recruitment remains buoyant (Bhattacharyya 2004; Melville 2004).

Living at home has consequences beyond students' educational choices. Initial findings from research I am currently conducting on higher education and social capital<sup>8</sup> suggest that students living at home are far less likely to become involved in university and student life, and to create university-based friendships and networks. Inevitably this affects their acquisition of social capital relative to other students living away from home, and may have longer term consequences, for example, in relation to career and employment opportunities. This study, along with research by Holdsworth (2003), also finds that students' access to money, unsurprisingly, impacts on their ability to socialise and make friends, which in turn, are foundations for the acquisition of social and cultural capital. Thus, their financial situation affects both their ability to participate fully in student life, and their deployment of social capital.

It is clear from these studies that financial issues and student funding policies are restricting students' choice of university and course, rather than just a lack of aspirations as proposed by the government in its analysis of class-related patterns of higher education institution participation (DfES 2003a). However, as Reay and others have shown, issues of class and race also impact on young people's choice of higher education institution. This is particularly significant in the British higher education sector, which is already deeply stratified along class and ethnic lines. Thus, there is a danger that the strategies adopted by these students for financial reasons, will perpetuate these divisions and undermine the government's desire to widen participation across the higher education sector. Moreover, these findings bring into question the government's commitment to choice in education (DfES 2003a) and suggest that the student support system does not make that a reality for the poorest students.

#### *4.3. Term-time Employment*

Another change in student behaviour associated with the reforms of student financial support is the rise in term-time employment, which affects both students' ability to participate fully in university life and their academic attainment. Between 1998–99 and 2002–03, the proportion of students working during term-time increased from 47 per cent to 58 per cent. In 2002–03, students worked an average of 14 hours a week in term-time. Those most likely to work came from the lowest social classes (62 per cent compared with 56 per cent from the highest social classes) and they worked the longest hours (Callender and Wilkinson 2003).

Students are not new to the labour market. What is new is the growing proportion who work; the fact that their employment is no longer "incidental and confined to vacation work" (Ford, Bosworth and Wilson 1995: 187) but is now undertaken during term-time; and that their earnings have become a vital source of income.

Various commentators have attributed this growth in term-time employment to the reform of student funding, especially the introduction of student loans in 1990 (Ford, Bosworth and Wilson 1995; Lucas and Ralston 1997; Smith and Taylor 1999; UNITE/MORI 2002; Metcalf 2003). Time-series data on the proportion of students

working during term-time only are not readily available. However, data on employment during the academic year including the Christmas and Easter vacations (i.e. from October to June) show that it jumped from 45 per cent in 1988–89 before the introduction of student loans to 69 per cent in 1995–96 a few years after their launch. After a dip to 64 per cent in 1998–99, employment rates rose again to 70 per cent in 2002–03, following the abolition of student grants.

More recent research I have undertaken shows that the limitations of the student funding system are a key factor behind the rise in term-time employment. The study consisted of a survey of a representative sample of 1500 full-time 'home' final-year undergraduate students studying at seven UK universities and was conducted in spring 2002. Data were collected using self-completion questionnaires, distributed by post to a random sample of final-year students in each of the seven institutions, together with focus group discussions with students and with staff at some of the institutions. With the students' explicit permission, data on academic performance were also requested from each of the institutions as one of the study's main aims was to assess the impact of term-time employment on student achievement and attainment (for more details of the methodology see the technical appendix of Van Dyke, Little and Callender forthcoming).

Overall, the study identified three problems with the student loan system, which together help explain the increasing propensity for students to engage in term-time employment. These were the inadequate level of student loans; the regressive nature of the loans; and debt aversion.

Students' decision to work was influenced by a variety of factors such as finances, their values and attitudes, and the 'costs' of engaging in paid work. However, like other studies, we found that financial concerns were the driving force. Over four out of five working students reported they needed the money for basic essentials and a similar proportion said they worked because they could not manage just on their student loan. Other research also shows that the proportion of students using their earnings for basic essentials has increased over time (UNITE/MORI 2004). Clearly, the low level of student loans was a major reason why students worked.

More than half of the students in our study also said that they had no choice but to work because their families could not help them out financially, but this increased to seven out of ten among students from the lowest social classes. Again, this echoes the findings of my other research, which showed that students' earnings compensated for their lack of financial support from their families. All students who worked during term-time received less money from their parents than students who did not work. For example, working students from the lowest social classes received less than half the parental support of similar non-working students (£631 compared with £1269) (Callender and Wilkinson 2003). These findings also accord with qualitative research showing how parental contributions are a strong determinant of students' working choices and whether earnings were spent on essentials or to finance a particular lifestyle (Christie, Munro and Rettig 2000).

Again, this points to the drawbacks of the student financial support arrangements, and student loans in particular which are insufficiently progressive. Loans, unlike the student grants in the past, do not offset the lack of money students

from the lowest social classes obtained from their parents compared with the sums obtained by students from the highest social classes. Put another way, in 2002–03 students from the lowest social classes received, on average, £701 from their parents and £2886 in student loans: a total of £3587 over the academic year. The comparable figures for students from the highest social classes were £1593 and £2596 respectively: a total of £4189 (Callender and Wilkinson 2003). Consequently, they were £602 better off than their less affluent peers. In other words, the student support system does not totally compensate for the low level of family aid received by students from the lowest social class families, hence their need to work. Instead, it channels money, in the form of student loans, to students from high income families who also receive generous parental support. This development is just one of the consequences of the abolition of means-tested student grants and their replacement with partially means-tested student loans in 1998.

The final drawback with student loans, which contributed to students' term-time employment, was related to debt avoidance and debt aversion. Term-time employment was just one of many strategies students used to contain their debt. Nearly three in ten students in our survey of term-time employment worked to reduce the amount of money they borrowed from the Student Loan Company and a further one in six worked to avoid taking out a loan altogether. However, nearly a half of minority ethnic students worked to reduce the level of their loan compared with just a quarter of white students, while twice as many students living at home with their parents worked to avoid debt compared with those living independently of them (40% compared with 20%) (Van Dyke, Little and Callender forthcoming). These findings reflect those from other studies, which show that the take-up of student loans varies considerably among different student groups. Multivariate analysis demonstrates that those least likely to take out a student loan are students from minority ethnic groups, students living at home, and those studying in London – all factors which are interlinked (Callender and Kemp 2000; Payne and Callender 1997). Again, these students' reasons for working illustrate the links between the student financial support system and term-time working and how in these cases earnings were a substitute for borrowing, often because they were debt averse.

Our study found that students reaped few benefits from working which is not surprising given that they were concentrated in unskilled and very low paid jobs, earning well below national average wages. Instead, they traded time studying for money, undermining their academic performance, depressing their final degree results, and putting at risk their successful course completion (Yorke and Longden 2004; Davies and Elias 2003).

Regression modelling techniques, which controlled for a number of factors, were used to explore the overall relationship between term-time employment and students' marks and degree results. The aim was to assess whether the average hours students worked in term-time, from zero hours upwards, were associated with their achieved marks and their achieved degree results. A number of the students' personal characteristics were included in the regression, including their qualifications on entry into university and their A-level scores because of their impact on attainment and the strong association between entry qualifications and degree results. In addition, the students' university was built into the regression to

control for any institutional effects, in the light of our findings on the variations in the propensity of students to work at different universities and the variations in the average hours worked. Furthermore, the universities had diverse marking schemes so statistical techniques were used to standardise the students' marks across the sample.

The statistical models showed that the relationship between term-time working and the probability of achieving a 'good degree' (i.e. a first or upper second) was linear and negative (p-value less than 0.001). All the statistical models and all the outcomes gave consistent results of the negative relationship between term-time working and achievement, even after taking into account other factors, including the students' ability. For example, a student working 16 hours a week has between a 10 to 60 per cent relative chance of getting a poor degree (i.e. lower second or less) than an identical non-working student.<sup>9</sup> This negative association between term-time employment and academic achievement was evident across all higher education institutions. Moreover, the more hours spent in term-time work, the greater is the decrease in achievement. There was, however, no evidence from these data of an additional negative effect from very high levels of term-time working (i.e. 20 hours or more), or of a positive effect of low levels of term-time working. Thus, just engaging in term-time employment was likely to depress students' degree results. The students most likely to engage in term-time employment came from the most disadvantaged families. In other words, term-time employment compounded and increased existing inequalities among the student population: it had the most negative effect on those already at a disadvantaged within higher education.

The findings from this study are important. They confirm that the rise of term-time employment is associated with the changes in student funding policies, particularly the introduction of tuition fees and the replacement of grants with loans. They demonstrate further how term-time working is prompted by the limitations of existing student funding provision. As importantly, the study unequivocally shows the link between term-time employment and academic attainment and achievement, and is the first to do so in the UK, in a methodologically robust manner. Furthermore, the findings have longer term implications for students, once they graduate. The financial returns to undergraduate degrees vary substantially. One of the factors impacting on this variation is students' class of degree (Chevalier and Conlon 2003). Thus, term-time working could contribute to lower graduate salaries and lead to a reduction in the wage premium they reap from their degree.

## 5. CONCLUSION

The British government is committed to widening participation. It claims that the key obstacles to the realisation of this goal are students' low levels of attainment and aspirations, and their lack of knowledge about the higher education sector. In this chapter, I have argued that all these are important, but so too are financial factors, particularly money worries and concerns about debt. These influence prospective students' higher education entry decisions and students' experiences of higher education, once they go to university. Arguably, the government's 1998 reforms of

student support and funding arrangements have tended to exacerbate these financial matters by raising both the costs of higher education for students and the levels of student debt.

Student debt poses a particular policy dilemma for government. The student funding system and the key forms of student support are predicated on the accumulation of debt. Yet evidence suggests that debt deters university entry among certain groups of would-be students. Debt aversion has the greatest impact on prospective students from low income families, the very group the government most wants to attract into higher education. Similarly, those with the most anti-debt views are the focus of the government's widening participation policies. However, student debt has increased rapidly as a direct result of the 1998 Teaching and Higher Education Act, and is set to rise yet further following the introduction of variable tuition fees in 2006. So overall, the actual student funding system may act as a disincentive and obstacle to access and participation, especially for those from low income families who are most reliant on student loans and leave university with the highest debts. Thus, the support system is in danger of deterring higher education entry among those at the heart of the government's widening participation policies. This highlights the contradictory nature of the government's student funding policies.

The changes in student financial support policies introduced in 1998 were prompted by the government's desire to widen participation in higher education and were meant to facilitate access. They also were aimed at funding the widening participation agenda. The money raised through tuition fees and saved through the abolition of grants was designated for this expansion. These policies have helped transform the private and public contributions to higher education. They have meant that students have taken more responsibility for the costs of their education. But this increase in private contributions has tended to disproportionately affect students from low income families compared with their more affluent peers. Therefore, the funding system has been socially regressive. This is because the government prioritised expansion in higher education at the expense of widening access and increasing the representation of lower class groups whose loss of state assistance was used to help fund higher education expansion across all classes.

The 1998 reforms of student funding, therefore, have led to a rise in the financial burden of higher education particularly for the poorest. With that rise, these students encounter increases in the financial and personal risks associated with going to university. The most disadvantaged students, and the very focus of widening participation policies, experience the greatest risks, hardship and financial pressures, all of which affect their chances of success and their ability to participate fully in university life. Moreover, many of the strategies they adopt to offset these risks, and their financial concerns and worries about debt – be it living at home or term-time employment – compound their disadvantage and increase existing inequalities among the student population. This helps explain the enduring class and ethnic differences both in patterns of participation in higher education and in patterns of graduate employment. Thus, the government's desire to widen participation in

higher education is potentially being undermined by the very policies it introduced to further these aims – again, highlighting the contradictory nature of government policy.

To what extent will the changes to student funding in the 2004 Higher Education Act improve this situation? Inevitably, one can only speculate about the potential impact of these changes. The introduction of variable tuition fees paid on graduation, means the end of up-front tuition fees. However, this change only affects students from more wealthy families who currently pay fees. According to the government, the increased tuition fees will lead to a rise in student debt to £15,000 (DfES 2003e), which is probably a conservative estimate. To put this sum in perspective, it means that nearly a third of students will be expected to borrow more than their families' annual income. And it should be recalled that the median income of individuals, before tax, is £11,800 (Chote and Wakefield 2003).

The learning dividend has been used to justify the introduction of variable tuition fees. High levels of debt are deemed acceptable because of the private returns of education and the wage premium attached to university degrees. To date, evidence indicates that these returns have remained stable despite the expansion of higher education although some data suggest that graduate positions have been maintained at the expense of those with lower level qualifications (Walker and Zhu 2003). Others argue that there are not enough high-skilled, high-wage jobs for the increasing number of graduates. Brown and Hesketh (2004) identify studies showing that around 40 per cent of graduates are in non-graduate work. This leads Brown and Lauder (2003) to conclude that there will be increasing pressure on graduate wages as more high-skilled jobs migrate to low-wage countries. Indeed, starting salaries for graduates are falling, the average of £12,659 in 2003 was down from £13,422 in 2002. However, it is already well established that the financial returns of a degree vary considerably. There are increasing disparities in the incomes of university graduates. Those least likely to reap the greatest financial benefits are the most disadvantaged, namely those attending less prestigious universities, from the lowest social classes, from minority ethnic groups, and from state schools. Moreover, with increasing competition for elite jobs, such disparities are likely to widen. As Brown and Hesketh (2004: 220) have argued:

Gaining access to value-added credentials was always a problem for the working classes, but increasingly this is not enough as it has to be complemented by significant investment in personal capital that expose differential access to broader cultural resources.

The extent to which student debt rises or falls in the future will depend largely on students' choice of university and the amount of tuition fees they pay. It is likely that they will employ a range of strategies to contain that debt, just as they do now, including choosing universities/courses with lower tuition fees. And if the returns to higher education do fall in the future, then such levels of debt may deter entry.

The new means-tested grants of up £2700, to be introduced once variable tuition fees are charged, are a very welcome development and will affect debt levels too. Students from families with residual household incomes of £15,210 will receive the full grant, and those whose family income is less than £33,000 will get a partial grant (DfES 2003a). According to the government, around 30 per cent of all students

will receive the full grant. However, a far smaller proportion of school leavers will receive the full amount. Data from the Family Resources Survey show that only 18 per cent of families with a dependent child aged 16–18 have incomes below £15,000 per annum. Moreover, far fewer students will benefit from the maximum grant compared with the old grant system abolished in 1998, and they will get less money.

At the time of writing, the finer details of these grants were unavailable and any discussion of their potential impact is only conjecture. The new grants are aimed to ensure that low income students who opt for a university/course charging the maximum tuition fee are no worse off than they were before the introduction of variable fees. So for some students, the grant will be given by one hand and taken away by the other. How much they benefit, will depend on a variety of factors including their choice of university. It is impossible to tell whether the level of the new grant is high enough to overcome prospective students' fear of debt. Even if they receive a grant, students will still take out loans for living costs and thus accumulate some debt. The grant may reduce some students' need to engage in term-time employment.

In addition, some students may be eligible for bursaries on top of their grants. All universities charging the maximum tuition fee will have to give low income students a minimum of £300, funded via their tuition fee income. Over and above this minimum requirement, universities will have considerable freedom to be innovative and creative in what financial support they offer. The strength of bursaries is also their greatest potential weakness. They are discretionary, rather than an entitlement. Each university will decide who to give bursaries to, and how much to give. There will be no standardised eligibility criteria, nor a standardised formula for calculating their value. It is unclear what mechanisms, if any, will be introduced to ensure that the aid is distributed fairly and transparently. Evidence from current discretionary student funding shows there are inconsistencies and inequities in how funds are allocated to students in similar circumstances with similar financial needs, but attending different universities. Inevitably, they will lead to a more complicated student funding system, which, in turn, can act as a barrier to participation. Bursaries also may lead to lower levels of debt for the poorest students, but are likely to be a lottery.

As commented in a recent article (Curtis 2004: online):

There are a plethora of variables that universities are contending with to set the bursaries, at the heart of which lie two apparently incompatible imperatives: social responsibility and market forces. Among the questions institutions are grappling with are: do universities give lots of little bursaries or a few big ones and what effect will that have on the market? Do you give them exclusively to the needy, or do you use them as a sweetener to entice students on to less popular courses? If you give only to the needy, is there a danger that some courses will fold?

To conclude, the unintended consequence of the 1998 Teaching and Education Act has been to create greater inequalities with poorer students losing out. Now students pay for their education by taking out loans and doing paid work while they are studying. Money from their families is less significant. However, poorer students have shouldered a larger share of the costs. It is unlikely that the 2004 Higher

Education Act will reverse these trends, or lead to widening participation. Variable fees increase both the costs of higher education for students and their debt. Both have been found to deter low income groups' participation. The new grant, while welcome, is likely to be inadequate to offset both the rising costs and debt.

Rather, there is a danger that the new reforms will reassert elitism in higher education in Britain. Privileged students who populate top universities will pay high fees but will get highly valued degrees and well-paid jobs on graduation. Low income and access students who populate universities at the bottom of the hierarchy will pay less and get less but still end up with large debts and lower paid jobs on graduation. These divisions between institutions and between students are likely to reinforce both social class and disadvantage. There is a danger that higher education will become more socially and ethnically differentiated and polarised than ever before.

### NOTES

- 1 Approximately 90% of students studying for a degree in the UK are full time. The most comprehensive student financial support throughout the UK is aimed at full-time undergraduate students – both part-time students and postgraduates receive very little public support towards the costs of studying.
- 2 This analysis will focus on changes in England and Wales. For a more detailed analysis of these and changes in Scotland and Northern Ireland see Woodhall and Richard in this volume.
- 3 The means test was based on the income of a student's parents, or on the student's own income if they were aged 25 and over. The same means test has been used in the 1998 Teaching and Higher Education Act when assessing eligibility for help with tuition fees and more generous student loans.
- 4 Their net gain from the public contribution was even higher between 1990 and 1998 because student loans were not means-tested at all during that period.
- 5 Twenty-six per cent of 19 year olds with parents in routine jobs have a level 3 qualification compared with 69% of those with parents in higher professional jobs.
- 6 The indicators used were derived from Davies and Lea (1995) and Lea, Webley and Bellamy (2001) who have validated them.
- 7 For full details of the analysis and the results see Callender and Jackson (forthcoming).
- 8 This is part of London South Bank University's ESRC Research Group on the Family and Social Capital.
- 9 Figures derived from the random coefficient degree class model using the parameter estimate for term-time working:  $p/(1-p) = \exp(16*(-0.032 \pm 1.96*0.013)) = (40\%, 90\%)$ , where  $p$  = probability of a good degree.

### REFERENCES

- Archer, L. and M. Hutchings. "‘Bettering Yourself?’ Discourses of Risk, Cost and Benefit in Ethnically Diverse, Young Working-class Non-participants’ Construction of Higher Education." *British Journal of Sociology of Education* 21.4 (2000): 555–574.
- Archer, L., M. Hutchings and A. Ross (eds). *Higher Education and Social Class: Issues of Exclusion and Inclusion*. London: Routledge Falmer, 2003.
- Ashworth, K., J. Hardman, W-C. Lui, S. Maguire, S. Middleton, L. Dearden, C. Emmerson, C. Frayne, A. Goodman, H. Ichimura and C. Meghir. *Educational Maintenance Allowance: The First Year*. Research Report RR 257. London: Department for Education and Employment, 2001.
- Ball, S.J., J. Davies, M. David and D. Reay. "‘Classification’ and ‘Judgement’: Social Class and the ‘Cognitive Structures’ of Choice of Higher Education." *British Journal of Sociology of Education* 23.1 (2002): 51–72.

- Ball, S.J., M. Maguire and S. Macrae. *Choice, Pathways and Transitions Post-16: New Youth, New Economies in the Global City*. London: Falmer Press, 2000.
- Ball, S.J., D. Reay and M. David. "'Ethnic Choosing': Minority Ethnic Students, Social Class and Higher Education Choice." *Race, Ethnicity, Education* 5.4 (2002): 333–357.
- Ball, S.J. and C. Vincent. "'I Heard it on the Grapevine': 'Hot' Knowledge and School Choice." *British Journal of Sociology of Education* 19.3 (1998): 377–400.
- Barr, N. and J. Falkingham. "Repayment Rates for Student Loans: Some Sensitivity Tests." Welfare State Programme Discussion Paper WSP/127. London: London School of Economics, 1996.
- Beck, U. *The Risk Society*. London: Sage, 1992.
- Beck, U., A. Giddens and S. Lash. *Reflexive Modernization: Politics, Tradition and Aesthetics in Modern Social Order*. Cambridge: Polity, 1994.
- Bhattacharyya, G. "Still Sinking After all These Years." *The Guardian*. 10 December, 2004, <http://education.guardian.co.uk/higher/comment/story/0,,1370140,00.html>.
- Blandin, J. and S. Machin. "Educational Inequality and the Expansion of UK Higher Education." *Scottish Journal of Political Economy* 51.2 (2004): 230–249.
- Blunkett, D. *Modernising Higher Education: Facing the Global Challenge*. Speech at the University of Greenwich, 15 February, 2000.
- Brown, P. and A. Hesketh. *The Mismanagement of Talent: Employability and Jobs in the Knowledge Economy*. Oxford: Oxford University Press, 2004.
- Brown, P. and H. Lauder. "Globalisation and the Knowledge Economy: Some Observations on Recent Trends in Employment, Education and the Labour Market." Working Paper No. 43. Cardiff: Cardiff University, 2003.
- Callender, C. "Full-time and Part-time Students in Higher Education: Experiences and Expectations." *Higher Education in the Learning Society*. Report of the National Committee of Inquiry into Higher Education, chaired by Sir Ron Dearing. Report 2. London: HMSO, 1997, 1–82.
- Callender, C. *Attitudes to Debt: School Leavers' and Further Education Students' Attitudes to Debt and Their Impact on Participation in Higher Education*. London: Universities UK, 2003.
- Callender, C. *The Changing Finances of Students Studying in London: Evidence from the 2002/03 Student Income and Expenditure Survey*. London: Greater London Authority, 2004.
- Callender, C. and J. Jackson. "Does Fear of Debt Deter Students from Higher Education?" *Journal of Social Policy* forthcoming.
- Callender, C. and M. Kemp. *Changing Student Finances: Income, Expenditure and the Take-up of Student Loans Among Full and Part-time Higher Education Students in 1998/9*. Research Report RR 213. London: Department for Education and Employment, 2000.
- Callender, C. and D. Wilkinson. *2002/03 Student Income and Expenditure Survey: Students' Income, Expenditure and Debt and Changes Since 1998*. Research Report No. 487. Nottingham: Department for Education and Skills, 2003.
- Chevalier, A. and G. Conlon. Does it Pay to Attend a Prestigious University? London: Centre for the Economics of Education, London School of Economics, 2003.
- Chote, R. and M. Wakefield. "You Might Be Richer Than You Think." *The Guardian*. 29 September, 2003.
- Christie, H., M. Munro and H. Rettig. *Working All the Time? Student Income and Paid Employment*. Edinburgh: Edinburgh College of Art/Heriot Watt University, 2000.
- Clarke, C. *The Government's Higher Education Proposals Explained*. London: DfES, January, 2004.
- Connor, H., R. Burton, R. Pearson, E. Pollard and J. Regan. *Making the Right Choice: How Students Choose Universities and Colleges*. London: CVCP, 1999.
- Connor, H., S. Dawson, C. Tyers, J. Eccles, J. Regan and J. Aston. *Social Class and Higher Education: Issues Affecting Decisions on Participation by Lower Social Class Groups*. Research Report RR 267. London: Department for Education and Employment, 2001.
- Connor, H., C. Tyers, T. Modood and J. Hillage. *Why the Difference? A Closer Look at Higher Education Minority Ethnic Students and Graduates*. Research Report No. 552. Nottingham: Department for Education and Skills, 2004.
- Corney, M. "Destroying the Myths." *The Guardian*. 20 January 2004, <http://education.guardian.co.uk/egweekly/story/0,5500,1126313,00.html>.
- Curtis, P. "Storm Warning." *The Guardian*. 21 September, 2004, <http://education.guardian.co.uk/egweekly/story/0,5500,1308568,00.html>.

- Davies, R. and P. Elias. *Dropping Out: A Study of Early Leavers from Higher Education*. London: DfES, 2003.
- Davies, E. and S. Lea. "Student Attitude to Student Debt." *Journal of Economic Psychology* 16.4 (1995): 663–670.
- Davies, P. and J. Williams. "For Me or Not for Me? Fragility and Risk in Mature Students' Decision Making." *Higher Education Quarterly* 55.2 (2001): 185–203.
- DFEE. *Blunkett Welcomes Teaching and Higher Education Act*. Press Release. London: Department for Education and Employment, 17 July, 1998.
- DfES. *The Future of Higher Education* (White Paper). London: HMSO, Cm 5735, 2003a.
- DfES. *Widening Participation in Higher Education*. London: Department for Education and Skills, 2003b.
- DfES. *Youth Cohort Survey: The Activities and Experiences of 17 Year Olds: England and Wales 2003*. SFR 35/2003. December, 2003c.
- DfES. *Youth Cohort Survey: The Activities and Experiences of 19 Year Olds: England and Wales 2003*. SFR 36/2003. December, 2003d.
- DfES. *Student Loans and the Question of Debt*. London: Department for Education and Skills, 2003e, <http://www.dfes.gov.uk/hegateway/hereform/index.cfm>.
- DfES. *Future of Universities Secured Today as Higher Education Act is Approved by Parliament*. Press Release. London: Department for Education and Skills, 1 July, 2004a.
- DfES. *Statistics of Student Support for Higher Education in the United Kingdom, Financial Year 2003–04 and Academic Year 2004–05 (Provisional)*. SLC SFR01/2004. London: Department for Education and Skills, 30 November, 2004b.
- Du Bois-Reymond, M. "'I Don't Want to Commit Myself Yet': Young People's Life Concepts." *Journal of Youth Studies* 1 (1998): 63–79.
- Dwyer, P. and J. Wyn. *Youth, Education and Risk*. London: Routledge, 2001.
- Farr, M. "Home or Away? A Study of Distance Travelled to Higher Education 1994–1999." *Widening Participation and Lifelong Learning* 3.1 (2001): 17–25.
- Ford, J., D. Bosworth and R. Wilson. "Part-time Work and Full-time Education." *Studies in Higher Education* 20.2 (1995): 187–202.
- Forsyth, A. and A. Furlong. *Socio-economic Disadvantage and Access to Higher Education*. Bristol: Policy Press/JRF, 2000.
- Forsyth, A. and A. Furlong. "Access to Higher Education and Disadvantaged Young People." *British Educational Research Journal* 29.2 (2003): 205–222.
- Galindo-Rueda, F., O. Marcenaro-Guiterrez and A. Vignoles. *The Widening Socio-economic Gap in UK Higher Education*. London: Centre for the Economics of Education, London School of Economics, 2004.
- Gerwitz, S., S.J. Ball and R. Bowe. *Markets, Choice and Equity in Education*. Buckingham: Open University Press, 1995.
- Giddens, A. *Modernity and Self-identity: Self and Society in the Late Modern Age*. Cambridge: Polity, 1991.
- Gorard, S. *School Choice in an Established Market*. Aldershot: Ashgate, 1997.
- Gorard, S., G. Rees, R. Ferve and J. Furlong. "Learning Trajectories: Travelling Towards a Learning Society?" *International Journal of Lifelong Education* 17.6 (1998): 400–410.
- HEFCE. *Supply and Demand in Higher Education*. Bristol: Higher Education Funding Council for England, 2001.
- HEFCE. *Young Participation in Higher Education: 1994 to 2000 Cohorts*. Bristol: Higher Education Funding Council for England, January, 2005.
- Holdsworth, C. *The Choices and Experiences of Higher Education Students Living in the Parent Home*. ESRC Full Report R000223985. Swindon: ESRC, 2003.
- Hutchings, M. "Information, Advice and Cultural Discourses of Higher Education." In Archer, L., M. Hutchings and A. Ross (eds). *Higher Education and Social Class: Issues of Exclusion and Inclusion*. London: Routledge Falmer, 2003, 97–118.
- Keys, W, K. Mason and L. Kendall. *Supporting Students Applying to Higher Education*. London: Sutton Trust, 2002.
- Knowles, J. "Access for Few? Student Funding and its Impact on Aspirations to Enter Higher Education." *Widening Participation and Lifelong Learning* 2.1 (2000): 14–23.

- Lea, S., P. Webley and G. Bellamy. "Student Debt: Expecting it, Spending it and Regretting it." In Scott, A., A. Lewis and S. Lea (eds). *Student Debt: The Causes and Consequences of Undergraduate Borrowing in the UK*. Bristol: Policy Press, 2001, 37–47.
- Lucas, R. and L. Ralston. "Youth, Gender and Part-time Employment. A Preliminary Appraisal of Student Employment." *Employee Relations* 19.1 (1997): 51–66.
- Machin, S. and A. Vignoles. "Educational Inequality: The Widening Socio-economic Gap." *Fiscal Studies* 25.2 (2004): 107–128.
- Melville, D. "Rank Outsiders." *The Guardian*. 7 December, 2004, <http://education.guardian.co.uk/egweekly/story/0,5500,1367473,00.html>.
- Metcalf, H. "Increasing Inequality in Higher Education: The Role of Term-time Working." *Oxford Review of Education* 29.3 (2003): 315–328.
- Middleton, S., S. Maguire, K. Ashworth, K. Legge, T. Allen, K. Perren, E. Battistin, L. Dearden, C. Emmerson, E. Fitzsimons and C. Meghir. *The Evaluation of Education Maintenance Pilots: Three Years Evidence A Quantitative Evaluation*. Research Report 499. Nottingham: Department for Education and Skills, 2004.
- NAO (National Audit Office). *Widening Participation in Higher Education in England*. The Stationery Office, London, 2002.
- NatWest. *Student Money Matters 2003: A Report on the Finances and Spending Habits of School Leavers, Student and Graduates*. London: National Westminster Bank, 2003.
- NUS. *Funding the Future: The Attitudes of Year 10 Pupils in England and Wales to Higher Education*. London: National Union of Students, 2003.
- Payne, J. and C. Callender. *Student Loans: Who Borrows and Why?* London: Policy Studies Institute, 1997.
- Reay, D., S. Ball and M. David. "'It's Taking Me a Long Time but I'll Get There in the End': Mature Students on Access Courses and Higher Education Choice." *British Educational Research Journal* 28.1 (2002): 5–19.
- Reay, D., J. Davies, M. David and S.J. Ball. "Choices of Degree or Degrees of Choice? Class, 'Race' and the Higher Education Choice Process." *Sociology* 35.4 (2001): 855–874.
- Roberts, K. *Youth and Employment in Modern Britain*. Oxford: Oxford University Press, 1995.
- Ross, A., L. Archer, D. Thomson, M. Hutchings, R. Gilchrist, C. Joh and K. Akantziliou. *Potential Mature Student Recruitment to HE*. Research Report RR 385. Nottingham: DfES, 2002.
- Schwartz, S. "Fees: Fact and Fiction." *The Guardian*. 16 December, 2003, <http://education.guardian.co.uk/higher/comment/story/0,1107481,00.html>.
- Smith, N. and P. Taylor. "Not for Lipstick and Lager: Students and Part-time Work." *Scottish Affairs Journal* 28 (1999): 147–163.
- Sutton Trust. *Entry to Leading Universities*. London: Sutton Trust, nd.
- UNITE/MORI. *Student Living Report 2002*. Bristol: UNITE/MORI, 2002.
- UNITE/MORI. *Student Living Report 2004*. Bristol: UNITE/MORI, 2004.
- Van Dyke, R., B. Little and C. Callender. *Debt, Term-time Work and Attainment: Higher Education Students' Attitudes to Debt and Term-time Working and Their Impact on Attainment*. London: Universities UK, forthcoming.
- Walker, I. and Y. Zhu. "Education, Earnings and Productivity: Recent UK Evidence." *Labour Market Trends* March (2003): 145–152.
- Watt, S. "Balancing the Books: Pounds and Potential." In Independent Committee of Inquiry into Student Finance. *Student Finance: Fairness for the Future; Research Report* (Cubie Report). Vol. I, Annex J–M. Edinburgh: Independent Committee of Inquiry into Student Finance, 2000, Annex L.
- Woodrow, M. *From Elitism to Inclusion: Good Practice in Widening Access to Higher Education*. London: CVCP, 1998.
- Woodrow, M. "Student Finance: Accessing Opportunity." In Independent Committee of Inquiry into Student Finance. *Student Finance: Fairness for the Future; Research Report* (Cubie Report). Vol. II, Annex N–P. Edinburgh: Independent Committee of Inquiry into Student Finance, 2000, Annex O, 374–388.
- Yorke, M. and B. Longden. *Retention and Student Success in Higher Education*. Maidenhead: SRHE & Open University Press, 2004.

DONALD E. HELLER

## THE CHANGING NATURE OF PUBLIC SUPPORT FOR HIGHER EDUCATION IN THE UNITED STATES

### 1. INTRODUCTION

The higher education system in the United States is distinguished from those of many other countries by two characteristics: 1) there is a long and significant history of private institutions of higher education; and 2) public higher education is largely governed and controlled by state governments, rather than by the federal government. The first colleges in the nation were private institutions founded during the colonial era, beginning with Harvard College in 1636. It was almost 150 years later that the first truly public institutions began to be created. Today, approximately 75 per cent of all postsecondary students are enrolled in public institutions of higher education (National Center for Education Statistics 2003a).

The United States constitution provides no role for the federal government in providing education at any level; the word 'education' is not found in the constitution. Thus, as states realised the need to provide education beyond the secondary level, and to supplement that provided by private institutions (which were largely church-related and focused on training for the ministry), they began to develop colleges and universities. The passage of the federal Morrill Act in 1862 was a catalyst to the great expansion in the public system of higher education. The Morrill Act provided federal land grants to states, which could in turn sell the land and use the proceeds for the creation and expansion of public universities.

The federal government entered a new realm of funding for higher education during World War II, when the need for scientific research in support of the war effort led the government to partner with universities by paying for research to be conducted there. The Servicemen's Readjustment Act (more commonly known as the GI Bill), passed in 1944, for the first time brought the federal government into providing financial aid to students to attend college. The passage of the Higher Education Act in 1965 opened up federal student aid to all eligible students. Today, the federal role in funding higher education is primarily in these two areas: funding research, and funding students. The bulk of the remaining revenues for higher education institutions is from direct appropriations from states (funds provided by the state governments that generally subsidise the cost of undergraduate instruction) and from the tuition and fees paid by students and their families.<sup>1</sup>

Funding for public higher education in the United States today has been described as being in 'crisis' (Jenny and Arbak 2004; National Education Association 2004; Trounson 2004). The slowdown in the national economy has

caused most states, which have the primary responsibility among governments for funding colleges and universities, to incur unprecedented budget constraints. This in turn has caused state funding for higher education to be cut for two years in a row (Center for the Study of Education Policy 2004). From fiscal year 2002 to 2004, state funding for higher education declined 4 per cent in current dollars, or when inflation is taken into account, a decline of 8 per cent.

Largely because of these funding cuts, tuition prices at public institutions of higher education have skyrocketed during this period. The average price nationally for tuition alone (not including any subsistence or other expenses related to attending college) at a public four-year institution increased 26 per cent from the 2001–02 to 2003–04 academic years, to an average of \$4694 (College Board 2003a). At community colleges, prices increased 18 per cent in the two years, to an average tuition of \$1905. These increases occurred during a two-year period when inflation increased just 4 per cent.

These funding cuts and price increases have occurred while demand for higher education is at an all-time high, driven both by demographics as well as the preferences of more and more traditional-aged (18 to 24 year old) and adult students to attend college. From a low of 2.5 million in 1994, the number of high school graduates in the United States is projected to peak at 3.2 million in 2009, an increase of 28 per cent (Western Interstate Commission for Higher Education 2003). In 1980, half of all high school graduates enrolled in postsecondary education within a year of graduation. By 1997, this had increased to two-thirds of all graduates (National Center for Education Statistics 2003a: table 183). From 1980 to 2000, enrolment of adult students (those over the age of 24) increased 32 per cent, compared to a 24 per cent increase in the enrolment of those under age 24 (National Center for Education Statistics 2003a: table 174). It is these two factors – both constrained funding for higher education, and the increased demand – that have resulted in increasing tuition prices.

There has also been an important shift in state and institutional financial aid policy in recent years. While throughout most of the nation's history financial aid was awarded to students based on their financial need, in order to promote access to college for poor students, both states and higher education institutions have been turning more and more to the use of merit-based financial aid, which is disproportionately awarded to students from higher income families.

The changes seen in the United States are being mirrored in many European countries, as well as other countries around the world. "Increasingly, governments on both sides of the Atlantic are shifting the burden of financing from the state to the institution, and then on to the student" (American Council on Education 2002: 14). As the perception of higher education as a private good grows, national governments are stepping back from their longstanding commitment to fund all or most of the cost of education and subsistence for students (Labi 2003). Students and their families are being asked to bear more of the burden for supporting higher education as funding from national governments is reduced (Marcus 2004). Thus, the impact of these policy shifts in the United States can be seen as a model for similar changes in other countries.

In this chapter I critically examine the trends in public support for higher education in the United States, summarise the research on the consequence of these new patterns of public financing for higher education, and discuss possible new strategies for strengthening support of public colleges and universities and the students who attend them.

## 2. STATE SUPPORT OF HIGHER EDUCATION

### *2.1. The Historical Roots*

State support of higher education in the United States began with public allocations to private, largely church-chartered institutions.<sup>2</sup> This support was often in the form of the granting of public lands, and authorisation for the running of lotteries to benefit the institution. Many state governments in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries began to provide direct financial support from general tax revenues to support a number of private colleges and universities.

The first truly ‘public’ institutions of higher education were initially chartered in the late 18th century, primarily in the South and Midwest. Spurred by the financial assistance provided by the Morrill Act (described earlier), the number of higher education institutions in the country increased from 563 in 1869 to 977 at the end of the 19<sup>th</sup> century. During the same time period, the number of students enrolled in these institutions increased more than fourfold, from 52,286 to 237,592 (National Center for Education Statistics 2003a: table 3). Public institutions were funded primarily through revenues from the land grants, supplemented by appropriations from state general fund tax revenues.

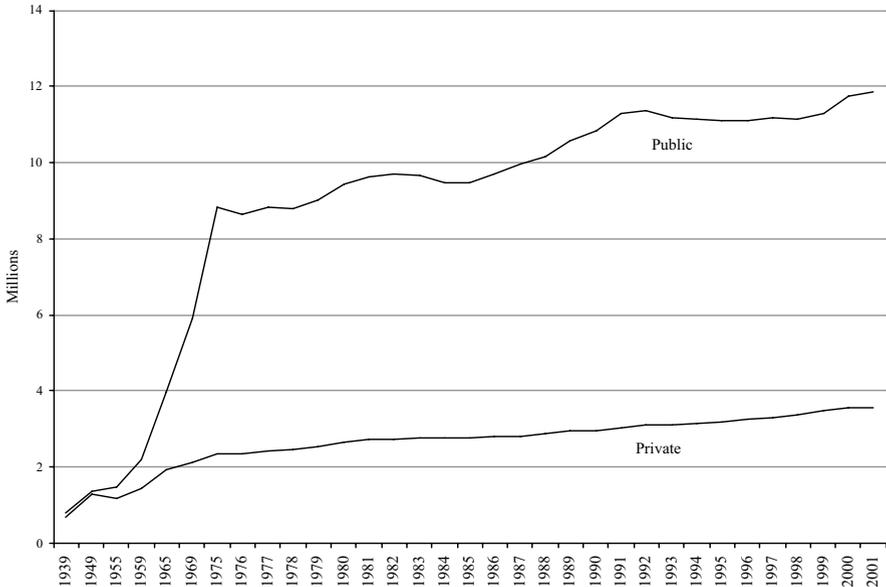
The proceeds of land sales and state appropriations were not the only sources of revenues for public colleges, however. In contrast to many other countries around the world, public higher education in the United States generally has not been offered free of charge to students. Many public institutions often charged tuition directly to the individual, though the charges were generally well below the level of those charged by private institutions and were not universal. An early 20<sup>th</sup> century study on the subject of public tuition charges concluded:

Yet the idea of fees or tuition was not entirely absent from the state university plan even in the beginning. The Federal Land Grant Act does not make any restriction against fees ... However, in the majority of cases no tuition as such was introduced in the new type [public] of institution and such fees as were created were nominal in amount. Probably the boards found then, as now, that other sources of income were not sufficient and that a charge of some kind against the student was a necessity. Probably they felt that the student would appreciate his work more if he paid something for it (Morey 1928: 185–186).

Another study confirmed the nominal nature of early tuition rates at public institutions, noting mid-19th century annual tuition and fee rates of \$12 at the University of Wisconsin (1855), \$10 at the University of Tennessee (1866), \$5 at the University of Illinois (1868), \$15 at Ohio State (1874), and \$5 at the University of Missouri (1874) (Sears 1923). The federal government did not begin calculating price indices and inflation data until 1913, so it is not possible to estimate precisely

what these amounts would be in today's dollars. But \$10 in 1913 was equivalent to \$193 today (Bureau of Labor Statistics 2004).

The passage of the GI Bill helped increase enrolments at both private and public colleges. As recently as just after World War II, enrolments at public and private institutions were roughly equivalent. Beginning in the economic expansion of the 1950s and continuing into the 1960s, however, enrolment at public institutions began to greatly outstrip that of private colleges. Figure 1 shows enrolment in each sector from 1939 to 2001.

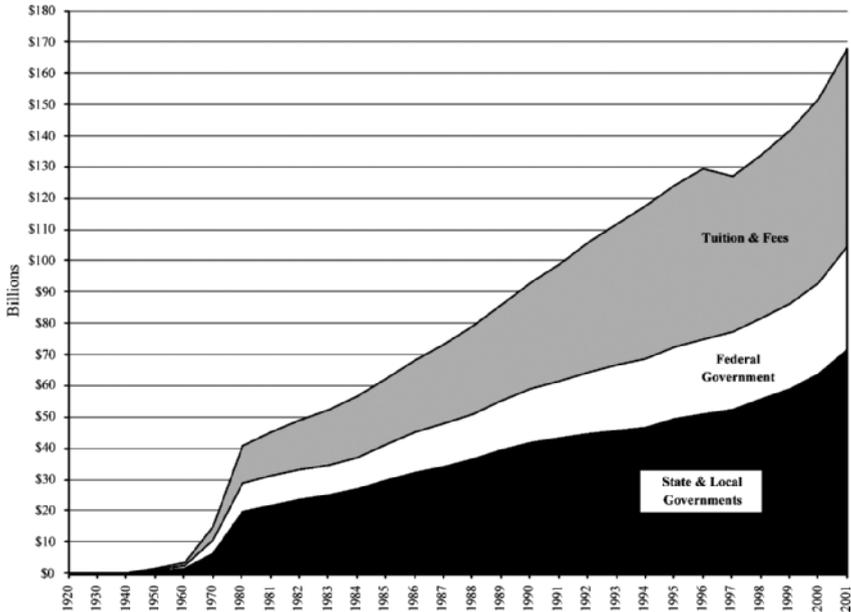


Source: National Center for Education Statistics 2003a: table 3

*Figure 1. Enrolment in public and private higher education institutions*

Both public and private higher education institutions have diverse revenue streams. Public appropriations (from state, local and the federal governments), tuition and fees, gifts and endowment income, contracts and sales of educational services all bring revenue into colleges. Historically, however, appropriations from the states had been the largest revenue source for all institutions, public and private, combined.

Since the early part of the 20<sup>th</sup> century, the Department of Education and its predecessor agencies have tracked the revenues (and expenditures) of higher education institutions. The three largest sources of revenues have been the federal government, tuition and fees, and state and local governments.<sup>3</sup> Figure 2 shows the revenues received by all higher education institutions from these three sources.



Note: The drop in tuition and fee revenues from 1996 to 1997 is due to an accounting change in private institutions

Source: Author's calculations from National Center for Education Statistics 2003a: table 333, 2004a: tables 334 and 340

Figure 2. Revenues received by public and private higher education institutions

The great expansion in funding for higher education between 1960 and 1980 can be seen in figure 2. Total revenues in higher education (from all sources, not just these three) increased over \$50 billion, or tenfold, during these two decades from \$5.8 billion to \$58 billion. In contrast, the previous two decades (from 1940 to 1960) saw an increase of only \$5 billion in revenues.

While all three sources have contributed to the rise in revenues in colleges and universities, tuition and fees have become the fastest growing revenue source. Table 1 shows the increase in revenues from each of these sources over three time periods. Both from 1940 to 1960, and from 1960 to 1980, funding from state and local governments saw the largest growth in revenues, far outstripping the growth from the other two sources. In the most recent two decades, however, tuition and fees contributed more to revenue growth than each of the other two sources.

While the Department of Education has not yet released revenue data for the years after 2001, it is very likely that tuition and fees have continued to be the fastest growing component of university revenues. From fiscal year 2000 to 2004, state appropriations for higher education increased only 6.5 per cent (Center for the Study of Education Policy 2001, 2004). During the same period, tuition prices increased

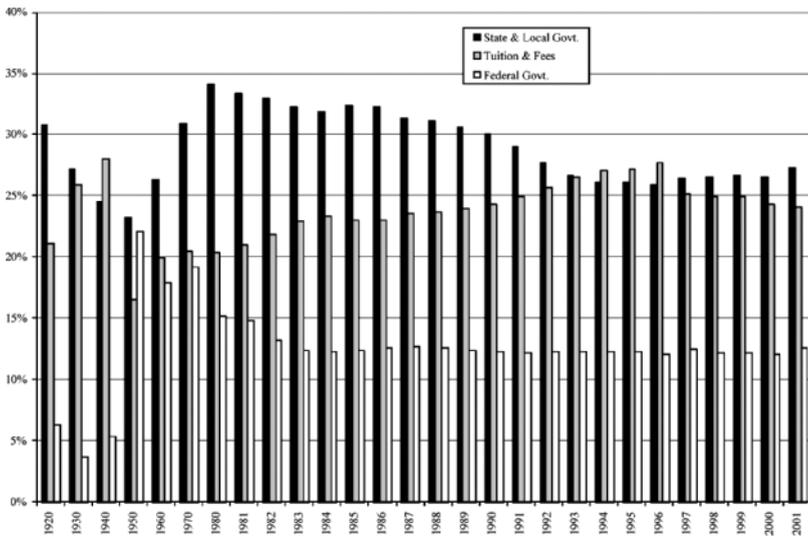
27 per cent, 40 per cent, and 16 per cent in private four-year institutions, public four-year institutions, and community colleges, respectively (College Board 2003a).<sup>4</sup>

*Table 1. Increase in revenues received by source (public and private institutions)*

	<i>Tuition and fees</i>	<i>Federal government</i>	<i>State and local governments</i>
1940 to 1960	\$956,585,000	\$998,130,000	\$1,350,577,000
1960 to 1980	10,772,858,000	7,865,854,000	18,439,660,000
1980 to 2000	46,847,074,000	20,241,099,000	44,141,670,000

Source: Author's calculations from figure 2

The relative contributions of these three main sources of revenues can be seen in figure 3. In the first half of the 20<sup>th</sup> century, support from the states and tuition and fees dwarfed revenues received from the federal government. World War II, however, spurred the development of federally funded research at the nation's universities.



Note: The drop in tuition and fee revenues from 1996 to 1997 is due to an accounting change in private institutions

Source: Author's calculations from figure 2

*Figure 3. Share of total revenues of higher education institutions for three major sources*

The period beginning in 1950 and ending in 1980 was an era of large growth in support for higher education by the states. This three-decade period saw state spending on higher education increase almost fortyfold as colleges and universities expanded their enrolments. Since 1980, however, the state (and local community) share of total college and university revenues has declined, from a high of 34 per cent to 27 per cent in 2001. The federal share of university revenues declined slightly during this period, from 15 per cent to 13 per cent. Both of these declines were supplanted in part by the increase in the share of revenues earned from tuition and fees, which rose from 20 per cent of total revenues in 1980 to 24 per cent in 2001. And this trend has continued in the ensuing years.

## *2.2. Recent Funding of Public Colleges and Universities*

To better understand the recent trends in state funding, this section focuses on public institutions. Over 97 per cent of all state and local appropriations nationally are directed to public institutions (see note 3). Understanding changes in state funding is also complicated by changes in enrolment. Thus, this section focuses on changes in state funding on a per-student basis since 1980.

Because of a lag in data available from the National Center for Education Statistics (NCES), I have augmented the NCES data with other sources where available. The appendix details the sources of data used to calculate and estimate the public college and university revenues and enrolments.

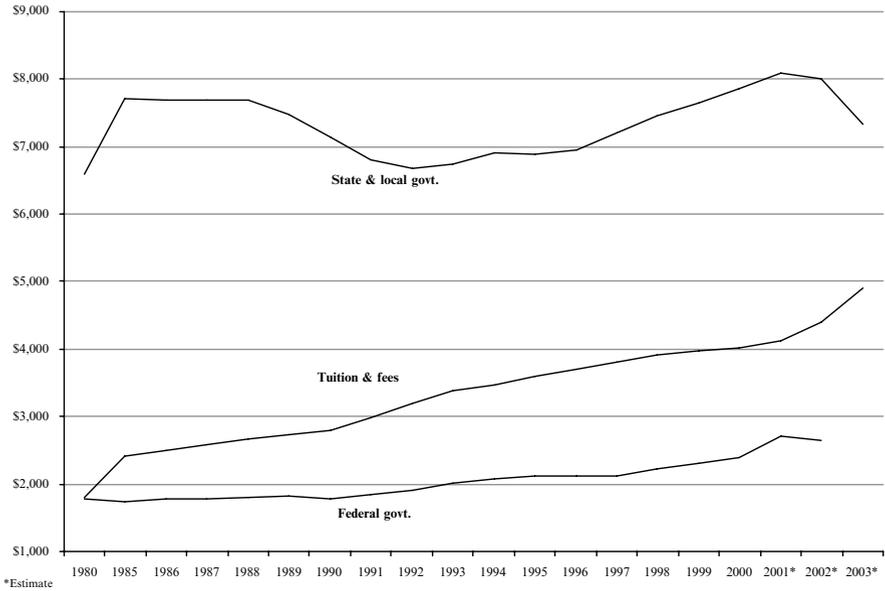
Since 1980, enrolments in public institutions have increased from 9.4 million to 12.5 million students in 2003, an increase of 33 per cent. Taking into account part-time enrollees, the increase in full-time equivalent enrolments was from 6.6 to 8.8 million students. During this same period, state and local appropriations to public institutions increased 31 per cent in real (2003) dollars, from \$48.9 billion to \$64.3 billion, almost matching the proportional increase in enrolments.

While at first glance it would appear that the states maintained their real level of support for higher education, what this comparison ignores is that the cost of educating each student has increased significantly. Data on expenditures in public institutions show that overall educational and general expenditures increased 65 per cent in real terms from 1980 to 1999 (National Center for Education Statistics 2003a: table 347), while enrolment increased only 21 per cent. Instruction, which makes up the largest share of expenditures, increased only 46 per cent during this period. Research and public service both grew at rates more than double that of instruction.<sup>5</sup>

Thus, the fact that state appropriations kept pace with enrolment growth was not sufficient for public higher education institutions to maintain their funding base. The primary source these institutions turned toward to make up the difference was the revenues received from students and their families. Figure 4 shows the changes in income per student for the three primary revenue sources of public institutions.

Public college and university revenue per student from state and local governments was slightly higher in 2003 than in 1980, increasing from \$6595 to \$7320 in constant dollars, but still below the 1985 level of \$7715. Revenue from the

federal government increased 48 per cent from 1980 to 2002. Federal funds are primarily awarded for sponsored research and other contracts, and cannot be used for general subsidy of undergraduate instruction. Tuition and fee revenue saw the largest growth of the three primary sources in public institutions during this period, increasing 173 per cent from \$1793 in 1980 to \$4897 in 2003.<sup>6</sup>



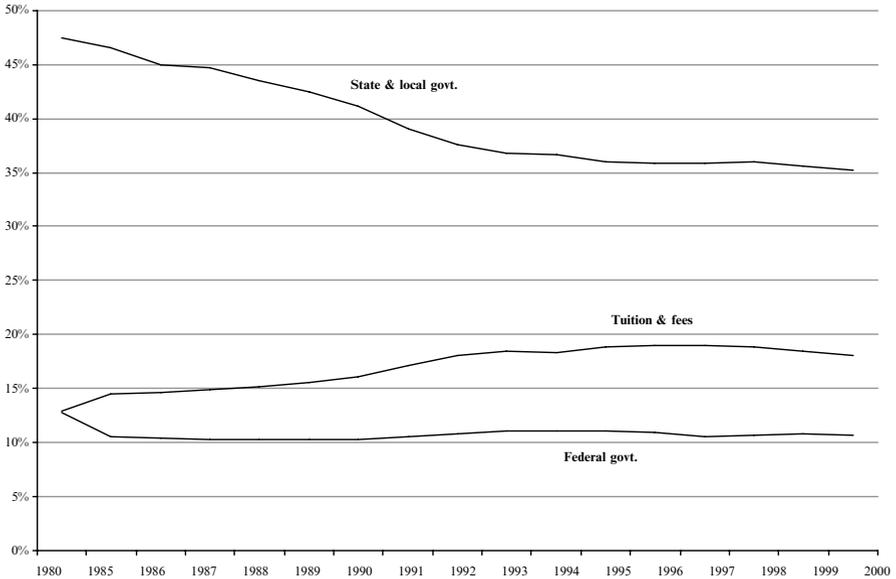
Source: Author's calculations (see appendix)

Figure 4. Income per full-time equivalent student in public institutions (constant \$2003)

These changes can be seen when you examine the share of total current fund revenues received by public institutions, shown in figure 5. In 1980, state and local appropriations provided just under half the revenues received by public colleges and universities. By 2000, this had declined to 35 per cent. The share of revenues received from the federal government decreased from 13 per cent to 11 per cent. Tuition and fees received from students and their families increased from 13 per cent of total revenues in 1980 to 18 per cent in 2000. During these two decades, the proportion of total current fund revenues received from these three sources combined decreased from 73 per cent to 64 per cent.<sup>7</sup>

Total current fund revenues are only available from the National Center for Education Statistics through the 2000–01 academic year, and there are no reliable national-level sources available to estimate them for more recent years. However, given the trends since then noted earlier – overall state appropriations for higher education decreased one-half per cent in current dollars from 2000 to 2003 (Center

for the Study of Education Policy 2001, 2004), and tuition prices increased 35 per cent at public four-year institutions and 16 per cent at community colleges (College Board 2003a) – it is very likely that the share of total revenues received from tuition and fees has risen well above the peak level of 19 per cent reached in the mid-1990s.

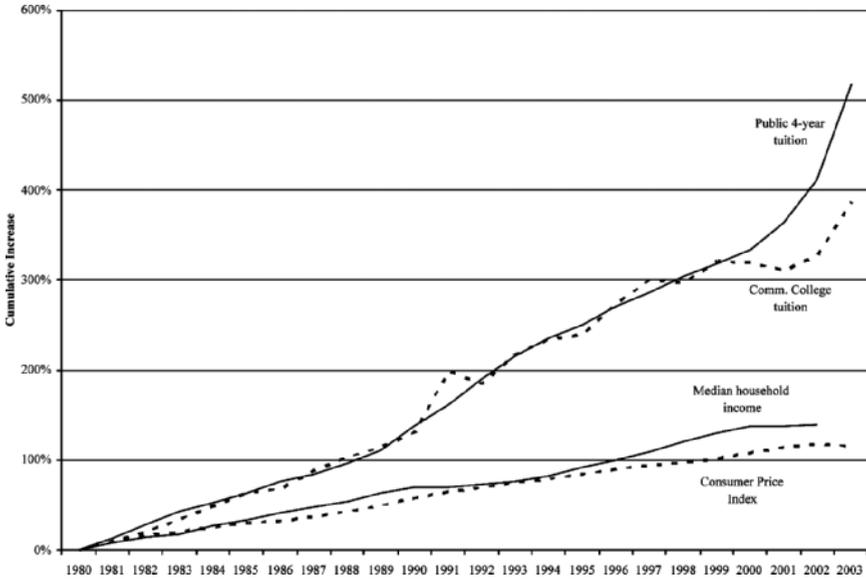


Source: Author's calculations (see appendix)

*Figure 5. Share of current fund revenues in public institutions*

The substitution of tuition and fees paid by students and their families for general appropriations from the state over the last two decades is reflected in the tuition price increases shown in figure 6. The cumulative increases since 1980 in tuition prices in public four-year institutions and community colleges nationally are shown along with the increases in the Consumer Price Index (for all urban consumers) and median household income in the country.

While incomes and inflation increased less than 150 per cent between 1980 and 2003, public four-year tuition prices rose 517 per cent and community colleges prices increased 387 per cent.<sup>8</sup> Prices in both sectors rose at more than twice the rate of increase in prices as well as the ability of families to pay for higher education. The picture for lower income students is even more bleak. Because wealthier households have made more gains in income than poorer households over the last two decades, the burden of paying for college for these poorer families has increased even greater than that of others (Heller 2001).



Source: Bureau of Labor Statistics 2004; College Board 2003a; United States Bureau of the Census 2004a

Figure 6. Increase in public tuition prices, household incomes and consumer prices

### 3. SHIFTS IN FEDERAL, STATE AND INSTITUTIONAL FINANCIAL AID POLICIES

#### 3.1. Federal Financial Aid

As described earlier in this chapter, the end of World War II and the passage of the GI Bill brought the federal government's first entrée into providing aid to students to attend college. The GI Bill, however, was not generally seen as a traditional student aid programme, but rather was seen as a reward or benefit for returning veterans. It was also envisioned by President Franklin Roosevelt as a means of avoiding the re-entry of large numbers of veterans into post-war labour markets that were not readily able to absorb them.<sup>9</sup>

Shortly after the end of World War II, President Harry Truman formed the President's Commission on Higher Education to examine how colleges and universities could best serve the nation in the post-war era. In examining who attended college in the United States, the Truman Commission, as it became known, found large gaps between rich and poor. It concluded that:

It is the responsibility of the community, at the local, State, and National levels, to guarantee that financial barriers do not prevent any able and otherwise qualified young person from receiving the opportunity for higher education. There must be developed in

this country the widespread realization that money expended for education is the wisest and soundest of investments in the national interest. The democratic community cannot tolerate a society based upon education for the well-to-do alone. If college opportunities are restricted to those in the higher income brackets, the way is open to the creation and perpetuation of a class society which has no place in the American way of life (1947: 23).

It took almost two decades before the federal government responded with legislation to answer the call of the Truman Commission.<sup>10</sup> In 1965, Congress passed and President Lyndon Johnson signed into law the Higher Education Act (HEA) of 1965. The HEA provided a number of programmes to provide assistance directly to colleges and universities, but the keystone was Title IV of the Act which opens with this statement:

It is the purpose of this part to provide, through institutions of higher education, educational opportunity grants to assist in making available benefits of higher education to qualified high school graduates of exceptional financial need, who for lack of financial means of their own or of their families would be unable to obtain such benefits without such aid ('Higher Education Act of 1965' 1965: § 401).

Title IV created both general grant and loan programmes, but it was not until the 1972 reauthorisation of HEA that the federal grant programmes were funded at a level that would have much impact on college students. By the 1974–75 academic year over one million undergraduates, or approximately one in six students, received a Basic Educational Opportunity Grant, the precursor to today's Pell Grant program, which is the primary federal need-based grant programme for undergraduate students.

Federal loan programmes authorised in Title IV developed more slowly so that, in the 1970s, federal grants were the predominant form of student financial assistance. In 1976, the average Basic Educational Opportunity Grant provided almost half of the total cost of attendance (tuition, fees, room and board) at a typical public four-year institution (College Board 2003b).

In the last two decades, however, federal loans have grown much faster than grants. Figure 7 shows the total amount of federal grants and loans awarded to students over the last three decades, along with the proportion of the total awarded in grants. Since 1976, the proportion of federal aid awarded in the form of grants has fallen from 80 per cent of the total to less than one-quarter.<sup>11</sup>

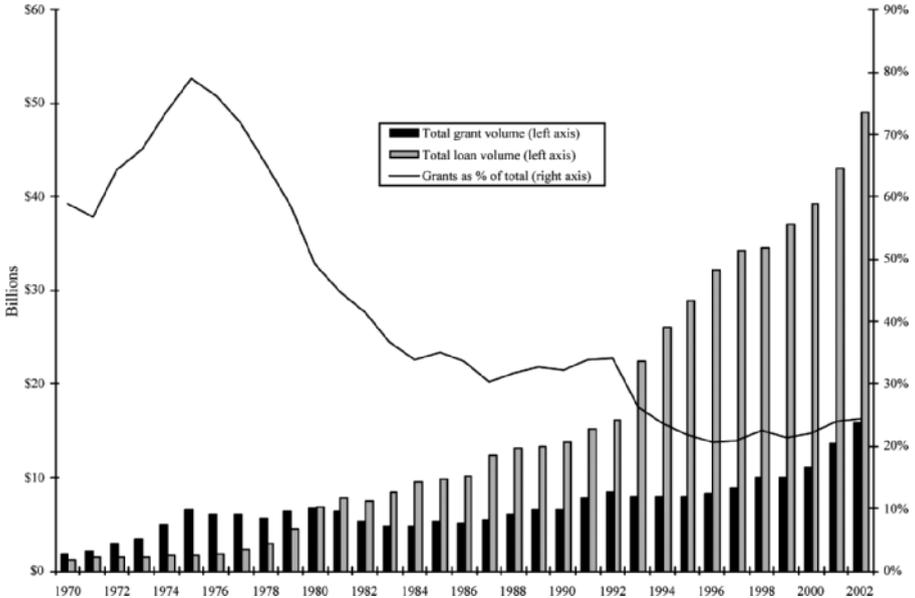
The implications of this shift from grants to loans on college access will be discussed in the next section of this chapter.

### *3.2. Trends in the States*

The 1972 reauthorisation of the Higher Education Act created the State Student Incentive Grant (SSIG) program, which provided matching funds from the federal government to states that established or expanded need-based scholarship programmes of their own. As I noted in an earlier article:

This proved to be a critical catalyst to the development and expansion of the state programs. While in 1969 19 states appropriated just under \$200 million for these programs, by 1974 this had expanded to 36 states and \$423 million. By 1979, every

state (and the District of Columbia) reported at least one grant program, and the total appropriated had increased to over \$800 million. A 1975 survey conducted by the National Association of State Scholarship Programs commented that, 'Growth represented in '74-75 and '75-76 in the historical summary table above, to a large degree, is a response to the new 231 SSIG Program which permits up to a \$1,500 annual student award (equal shares of \$750 Federal/State) in this new form of State/Federal partnership' (Heller 2002: 230-231).



Source: College Board 2003b

*Figure 7. Federal grant and loan volume*

While the SSIG program, later renamed Leveraging Educational Assistance Partnership (LEAP), helped spur the initial development of state need-based grant programmes, they grew largely through the efforts of the states themselves. Funding for SSIG (and later LEAP) expanded at a much slower pace than the state programmes. Even without the federal incentives, however, most states maintained a commitment to financial aid that mirrored that of the federal government:

Access and choice are two principal themes in student aid that have become familiar through frequent and thorough discussion over the past 20 years as they unfolded first in hortatory statements, then in large and growing funded student aid programs. The expressed goal of such programs has been to benefit young persons in the society by providing wide access to their choice of postsecondary education institutions ... The goal of wider access was achieved by changing the nature and purpose of monetary awards from prizes recognizing accomplishments or potential, to assistance granted almost solely to offset financial need (Fenske and Boyd 1981: 2-3).

The awarding of grants based on financial need has been recognised as being particularly effective in promoting initial college entry and persistence through college to students from lower income families. Research reviews conducted over three decades have confirmed that lower income students are the most price sensitive, and that they have the largest enrolment response to an offer of a grant that lowers the price of attendance (Heller 1997; Jackson and Weathersby 1975; Leslie and Brinkman 1988). Grants to higher income students have little impact on their college entry decisions, but they can help influence where a wealthier student attends college.

During the 1980s and early 1990s, the commitment to need-based aid on the part of the states continued. While the total dollars awarded to undergraduates grew from \$975 million in fiscal year 1982, to \$2.4 billion in 1994, the percentage of dollars awarded without using financial need as a measure fluctuated between 8.9 per cent and 11.1 per cent of the total (National Association of State Scholarship and Grant Programs, various years).

The decade of the 1990s, however, saw major changes in state financial aid policy, with some states moving away from financial need as the primary criterion used for awarding grants. With the development of the Helping Outstanding Students Educationally (HOPE) program in 1993, Georgia became the first state to develop a broad-based merit grant programme that functioned as an entitlement (i.e. every student who met the award criteria was guaranteed a grant) and did not use financial need as a criterion for award.<sup>12</sup> All students in the state who graduated from high school with a B average were awarded a full tuition scholarship at any public institution in the state, or \$500 to attend a private institution in Georgia.<sup>13</sup>

From this start, merit scholarship programmes that award their grants to undergraduate students without consideration of financial need have become the fastest-growing category of financial aid in the states. In 1992, the year before the development of Georgia HOPE, 9 per cent of state aid to undergraduate students was awarded without consideration of financial need. This increased to 27 per cent in 2002, the most recent year for which data are available (National Association of State Scholarship and Grant Programs, various years). During this period, the total dollars awarded by the states without consideration of the financial need of the student rose 629 per cent, while the volume of need-based grant dollars increased 108 per cent. Over a dozen states now have programmes similar to HOPE; while the merit criteria used to award the grants vary, the programmes are similar in that they are structured largely as entitlements and they award the grants without means-testing (Heller 2004). State policies have articulated three primary rationales for the creation of merit scholarship programmes:

- to encourage the best and brightest students to attend college in their home states, thus increasing the chance that they will stay in the state after completing college and contribute to the local economy;
- to encourage higher levels of academic performance in high school and college; and
- to increase overall rates of college participation.

In contrast to the research on need-based grants cited above, which have been found to be instrumental in promoting access for lower income students, merit grants have a quite different impact. Because of the strong correlation between socio-economic status and the academic criteria used for awarding the grants – which generally include high school grades, standardised test scores, or some combination of the two – the benefits flow disproportionately to students from more well-off families. A 2002 report that analysed four of the largest state merit aid programmes concluded that:

Overall, the studies in this report make it clear that the students least likely to be awarded a merit scholarship come from populations that have traditionally been underrepresented in higher education. This hinders the potential to increase college access among minority and low-income students, especially if these scholarship programs continue to overshadow need-based programs (Marin 2002: 112).

### *3.3. Trends in Institutional Aid*

Through most of the history of American higher education, financial aid provided from institutional funds was largely the province of private colleges and universities. In recent years, however, public institutions have entered the institutional financial aid field, expanding their awarding of grants from their own resources. These grants have been used for two purposes: to promote access for underserved populations, as well as for enrolment management purposes. While these efforts are modest in comparison to most private institutions, they are increasing.

Like the federal government and states, some public colleges and universities have recognised the importance of financial aid in order to ensure that poorer students will be able to enrol in college. As tuition prices have risen faster than the ability of lower income students and their families to pay for it – even with the assistance of state and federal grants – public institutions have begun to offer their own need-based grants.<sup>14</sup>

Public institutions have also felt the pressure to use financial aid for enrolment management purposes. The tactic of tuition discounting, or the offering of institutional grants to attractive students – those often perceived to benefit the institution in national college guides and rankings such as those produced by US News & World Report – has also spread from private colleges into public institutions.<sup>15</sup>

Table 2 shows the changes in institutional need-based and non-need, or merit, grants in public colleges between 1992 and 1999. The analysis uses data from the National Postsecondary Student Aid Study, a nationally representative survey of how college students finance their education.

Between 1992 and 1999, overall spending on institutional grants to dependent undergraduates increased 78 per cent, with spending on merit grants outpacing that of need-based grants.<sup>16</sup> The increase in grant spending was the result both of an increase in the number of grants awarded, as well as an increase in the average amount of each grant.

*Table 2. Institutional grant awards to dependent students in public institutions*

	1992–93	1999–2000	% Change
<i>Total \$ (millions)</i>			
Need-based	\$423	\$678	60
Merit	677	1,283	89
Total	1,100	1,961	78
<i>Number of grants</i>			
Need-based	317,000	448,000	41
Merit	334,000	490,000	47
Total*	621,000	896,000	44
<i>Average per student**</i>			
Need-based	\$1,336	\$1,515	13
Merit	2,024	2,618	29
Total	1,773	2,189	23

\*Total does not equal sum of need-based and merit grants, as some students receive both type of award

\*\*For students who received a grant

Source: Author's calculations from National Center for Education Statistics 2004b, 2004c

The increase in grant spending is less impressive, however, when taken in the context of change in tuition prices. Tuition prices increased 44 per cent at four-year public institutions and 48 per cent in community colleges over the seven years (College Board 2003a). Thus, while more students received both need-based and merit grants (and enrolment was stable during this period), the increase in the average awards was well less than the tuition price increases.

Another important trend in institutional grant awards – one that mirrors what was happening in state financial aid during this period – was that merit awards increased both in size and in number at a faster pace than did need-based awards. Merit awards, which are used primarily for enrolment management purposes, became a more prominent tactic of financial aid policy in public institutions.

#### 4. THE IMPLICATIONS OF RISING PRICES AND CHANGING FINANCIAL AID POLICIES

As described in the previous section, lower income students are the most sensitive to rising tuition prices when they make decisions to enrol in college and persist through to a degree or other credential once enrolled. This sensitivity is both to rising tuition prices, which discourage college enrolment and persistence, and financial aid (particularly grants), which encourages enrolment and persistence.

The shifting of the burden on paying for college from the public to students and their families, as well as the increasing use of merit aid by the states and public institutions, has not occurred in a policy vacuum. Federal financial aid is still the largest single source of assistance for paying for college. According to data from the College Board (2003b), 68 per cent of the \$105 billion in student aid that was

available in the 2002–03 academic year was from the federal government. Of the \$72 billion in aid provided by the federal government, however, 69% was in the form of loans, and 8 per cent was in the form of educational tax credits. Overall, less than 40 per cent of all aid was awarded in the form of grants.

Grants, loans and tax credits each have a different effect on the college enrolment decisions of youth who are under-represented in higher education. The research on college choice noted earlier has consistently found that grants are more effective than loans in improving access and persistence for these students. An important reason for this difference is because loans do not function to lower the price of the education; they instead are a mechanism to allow students to postpone paying for college until after they have graduated and are presumably benefiting from the higher salaries available to college graduates. Student loans, in fact, *increase* the cost of college going, because of the loan origination fees and interest charged during repayment.<sup>17</sup>

Educational tax credits, while still a fairly new college financing policy, have been found to have little impact on college access and choice for lower income students. The federal HOPE and Lifetime Learning tax credits allow students (or their parents) to deduct from their taxes owed a portion of the tuition costs paid for postsecondary education. These tax credits have important characteristics that work against their usefulness for lower income students, however:

- they are non-refundable and therefore require the student or his/her parents to have a tax liability, which for the lowest income students excludes them from eligibility;
- they can only be applied to tuition charges, not to other components of the cost of attendance;
- any other grants received must first be applied to tuition, and only any remaining tuition charge can be used for the tax credits; and
- the credits can only be taken against prior tax year costs, for example, a student enrolling in college in September in a given year would not receive the credit until January or later in that academic year.

A recent analysis of the impact of the tax credits found that while less than 5 per cent of families with incomes below \$20,000 in 2000 took advantage of the credits, 12 per cent of families with incomes above \$75,000 and below \$100,000 (at which level the credits phase out) took the credits (Long 2003). This analysis concluded that: “Insufficient tax liability due to low income levels, competing tax credits and deductions, and the interaction with other aid programs prevents many low-income individuals from qualifying for the aid” (p. 44).

The nation has done little to close the gap in college participation between the rich and the poor. While all income groups have increased the rate at which they attend college, a gap of approximately 30 percentage points between students in the top income quartile and those in the bottom has stubbornly persisted over the last three decades (College Board 2003a). Similar gaps between the enrolment of

white and under-represented minority students (African American, Latino and Native American) also have persisted.

Finances are not the only barrier that low income and other under-represented students face when attempting to enrol in college. Academic preparation, family and peer support, and cultural barriers play a role also.<sup>18</sup> But even among students who prepare themselves for college academically and in other ways, finances still play a role in keeping them out of college. The Advisory Committee on Student Financial Assistance, a federal body charged with advising both the Secretary of Education and Congress on financial aid policy, recently conducted an analysis of the impact of unmet financial need, or the difference between college costs and the resources available to students (from their own and family resources, as well as financial aid) to meet them. It examined a cohort of students graduating from high school in 1992 and who were “college-qualified – that is, those having adequate academic course preparation, grades, and aptitude test scores to meet the minimal entrance requirements of most four-year colleges” (Advisory Committee on Student Financial Assistance 2002: 16). It also classified the students based on their level of unmet need when applying for college.

Among these college-qualified students, 93 per cent from high income families (those with little unmet financial need) enrolled in postsecondary education within two years of high school graduation. In contrast, only 64 per cent of students with high unmet need enrolled in college within the same period. Even more striking is that 77 per cent of all high income students attended a four-year college, while only 33 per cent of the poorer students did. These gaps in college entry lead to later gaps in degree attainment. While 62 per cent of the higher income high school graduates went on to complete a bachelors degree, only 21 per cent of their lower income peers were able to attain this level of education.

Using these analyses, the Advisory Committee estimated the overall national impact of unmet need on the college enrolment of students from low (those with family incomes below \$25,000 per year in the 2001–02 academic year) and moderate (between \$25,000 and \$50,000) income. It found that these financial barriers prevented over 400,000 students nationally from enrolling in a four-year institution, and 170,000 students were barred from attending any postsecondary education at all. Over the course of the ensuing decade, financial barriers would keep over 4 million students out of four-year colleges and 2 million from any college.

## 5. REVERSING THE TRENDS

The research on state funding of higher education has found few examples of systematic policy formulation that attempts to coordinate appropriations, financial aid and tuition-setting policies in states. One study concluded that “we find little evidence of statewide efforts to develop coordinated state tuition, institutional funding, and state aid policies ... We were unable to identify any set of systematic relationships among these important funding issues” (Hossler et al. 1997: 180).

The simplistic solution to the issues raised in this chapter could be summarised in two words: ‘more money’. But simply throwing more money at higher education is a solution that is 1) unlikely to be accepted anytime in the near future; and 2) unlikely to solve the problem if the money is not wisely targeted. Targeting money wisely requires coordination of the various state policies that help provide resources to higher education.<sup>19</sup>

The decline of funding for higher education as a priority for states has been well documented (Breneman and Finney 1997; Hovey 1999; Mumper 2001; Rizzo 2003). Many of these and other observers of the higher education landscape believe that we are unlikely to see a recovery in state funding similar to that seen after the last recession.<sup>20</sup> This pessimism can be seen when one examines the declining priority of higher education in state budgets. Figure 8 shows the annual percentage change in higher education appropriations, and total state expenditures, across the nation. In every year since 1988, with the exception of 2000, the annual increase in overall expenditures by states was equal to or exceeded that of the change in appropriations for higher education.<sup>21</sup>

Patrick Callan described the current and likely future situation well:

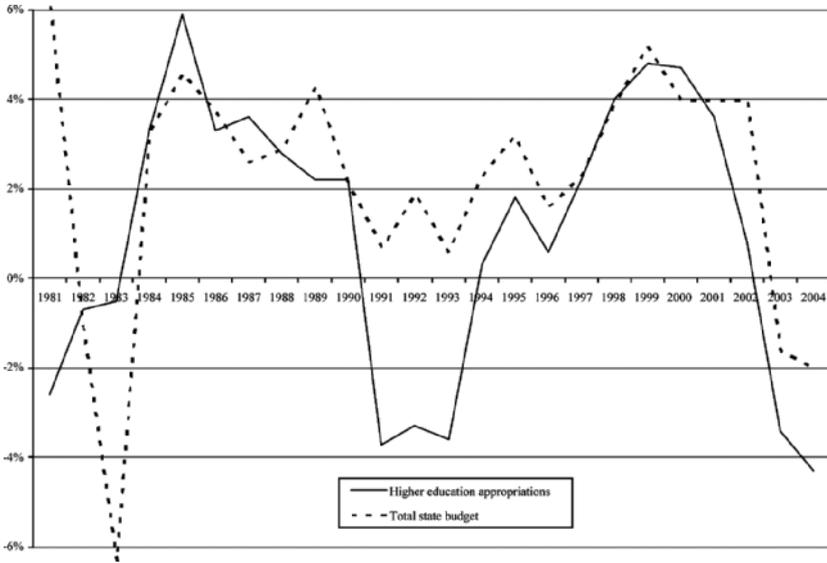
‘We’re on a kind of collision course in the country’, says Pat Callan, president of the National Center for Public Policy and Higher Education in San Jose, Calif., noting that along with the higher-ed cuts, many states are seeing big increases in the number of high school grads. ‘Every generation since the GI Bill has been better educated than the one before it. Now we’re living in an economy that really demands better-educated people, and yet that’s the very time where our commitment to educate the next generation seems to be more problematic’ (quoted in Paulson 2004: 11).

Even given the declining priority of higher education, it is reasonable to assume that there will be *some* recovery in state funding when state budgets begin to turn around from the dismal period experienced in 2002 to 2004, when state appropriations declined in current dollars for two years in a row. In fact, early tabulations of state funding for the 2005 fiscal year indicate that funding will increase by approximately 2 per cent over the 2004 level.<sup>22</sup>

While it appears that higher education institutions and students will benefit from slowly increasing appropriations, it is unlikely the increasing support will keep up with the demand for higher education. Estimates by the Western Interstate Commission for Higher Education (2003) show that the number of high school graduates in the nation will increase 8 per cent from 2004 to the peak in 2009. Thus, demographics alone would require that state appropriations would have to increase \$5 billion by 2009 just to keep funding at the 2004 level of \$60 billion. And this estimate does not include any additional funding required for:

- continuing increases in the cost of providing instruction, a likely condition given the issues described earlier in this chapter; and
- increases in the college-going rate of high school graduates, whether driven by higher demand for college-educated workers in the labour markets, and/or the success of the federal No Child Left Behind Act, which seeks to increase the academic preparation and achievement of students in primary and secondary schools.

Continued constraints on state appropriations will likely result in ongoing upward pressure on tuition prices. While public higher education institutions, especially the larger research universities, have become more aggressive in seeking additional sources of support (such as from fund raising), revenues from tuition and fees will continue to grow as a share of the overall revenue received by public colleges and universities. The era of universally low tuition in the public sector, an era which dominated for most of the nation's history, is over and will not return.



Source: Center for the Study of Education Policy (various years); National Association of State Budget Officers (various years)

*Figure 8. Annual change in higher education appropriations and total state expenditures*

In order to ensure that states are meeting the access and success needs of all students who are academically prepared for college, the resources available for higher education must be effectively targeted and wisely utilized. It is imperative that both the states and public higher education institutions maintain a commitment to meeting the needs of those who are most dependent on public funds in order to attend college and be successful once there.

Higher education has come to be seen as a discretionary item in state budgets, in contrast to areas such as Medicare, corrections and K-12 education, which have become de facto entitlements. There are a number of steps that states could take to help eliminate the impact of the swings of the annual state budget cycle shown in figure 8.

First, states should investigate linking funding for higher education to measures of demand, such as the number of high school graduates in the state and the number of adults who desire to return to postsecondary education. While the number of high school graduates is an easily obtainable figure (albeit with somewhat of a time lag), ascertaining the number of adults who want postsecondary training would require more work by most states. But surveys of employers, workforce development programmes and other organisations could help pinpoint this number.

Linking funding for higher education to independent measures of demand is an improvement over the formula-based budgeting approach used in some states. In these states, funding for higher education institutions is generally based on a formula that takes into account a variety of measures, including the enrolment in different postsecondary levels and programmes. But linking funding to students already enrolled in the institution leaves the state open to missing opportunities for students who have graduated from high school (or are in the adult working population but in need of postsecondary training), but yet cannot enrol in public institutions because of the financial barriers noted above. By benchmarking higher education funding to some baseline level, and then increasing it annually by the rise in the underlying demand population, appropriations are more likely to stay in line with needs.

Second, governors, state legislators, higher education boards and the leaders of public colleges and universities need to come to agreement on an appropriate mechanism for compensating institutions for increasing costs. Institutional leaders have long argued that the nature of higher education – it is labour intensive and employs a large proportion of highly skilled (and compensated) workers compared to the rest of state government – mandates that costs will rise faster than in most other sectors of the economy. Legislatures and governors, on the other hand, want to ensure that public colleges have incentives to control those costs, and that state appropriations do not provide an incentive to increase them further.

A compromise would be to agree upon a measure that could be used to recognise the unique cost structure of higher education, yet would not take on the appearance of an open chequebook to those responsible for funding it. A recent effort by the State Higher Education Executive Officers (SHEEO) to develop such a measure appears to hold promise (Lingenfelter et al. 2004). The organisation developed the Higher Education Cost Adjustment (HECA) index, which is determined by a blend of two existing federal government indices: 1) the Gross Domestic Product Implicit Price Deflator (25 per cent of the index); and 2) the Employment Cost Index (75 per cent of the index). The latter is a measure of salaries and benefits for white-collar workers in the economy, those judged to be most similar to the skilled professions in colleges and universities. As a basis of comparison, while the Consumer Price Index increased 40 per cent between 1990 and 2002, the SHEEO calculation of HECA increased 49 per cent.

Third, states should give public colleges and universities more flexibility in using funds across fiscal years. Most states require public agencies to use all of their budgeted funds within a given fiscal year; any funds unspent at the close of the year have to be returned to the state treasury. This often forces administrators into ‘spending frenzies’ as the end of the year approaches, which may not result in the best use of public resources. Allowing institutions to carry-over unspent funds from

one year to the next can help smooth the budget swings that occur as a result of state fiscal conditions. In good fiscal times, when state support is relatively strong, colleges and universities could bank funds toward use when the inevitable downturn occurs.

Fourth, public institutions of higher education have an obligation to ensure that the public resources with which they are entrusted are used efficiently and effectively. While it is often said that the American system of higher education is the best in the world, that position comes at a cost. Data from the OECD (2004: table B1.1) indicate that the United States spends much more on tertiary (post-secondary) education on a per-unit basis than do other industrialised countries. Excluding research expenditures, the United States spent \$20,098 per student for tertiary education in 2001, 180 per cent greater than the OECD average of \$7203 per student. Other countries recognised as having very good tertiary education systems – including the United Kingdom (\$8101), Australia (\$9200), and Germany (\$6370) – spend far less than does the United States. Higher education institutions and state policy makers should be sure that they understand the trade-offs between quality and cost.

Accountability of higher education is a topic that has been at the forefront of state policy in recent times (Zumeta 2001). Colleges and universities must work with state legislative, executive branch and higher education governing or coordinating board leaders to develop a set of measures that all agree measure the performance of the public system of higher education in meeting the needs of the state. These must not be seen as punitive, used solely to punish institutions through withholding of funds, but rather, as formative tools to help guide institutional goals and objectives in alignment with state interests.

Fifth, both states and higher education institutions must ensure that all financial aid resources are targeted toward students who truly need the aid in order to enrol in college and be successful once there. As described earlier in this chapter, over the last decade the largest growth in both state and institutional aid to undergraduate students has been in the form of merit grants. As shown in table 2, between 1992 and 1999 institutional merit aid grant dollars in public institutions increased 89 per cent, while need-based awards increased 60 per cent. In the state aid programmes, growth of merit aid was even more dramatic. Need-based state aid to students in public institutions increased 75 per cent between 1992 and 1999, while merit aid from the state increased 460 per cent during the period (author's calculations from National Center for Education Statistics 2004b, 2004c).

The research on the effectiveness of grants has consistently shown that they are most effective when targeted at meeting the college access needs of low income and moderate income students. The research on state merit aid programmes has demonstrated that merit aid is used primarily to subsidise the college-going of students who would have attended college even without the assistance of public funds.

We must recognise, however, the political popularity of using merit as a criterion for awarding financial aid. This popularity is likely to be unabated in the future, so states and higher education institutions must find ways to balance methods for determining 'merit' with the need to target financial aid resources most effectively

so as to increase college participation for under-represented students. One way to do this is to use both merit and financial need as joint criteria for grants, as well as by using merit criteria that are equitable for all students.<sup>23</sup>

While there is no ‘silver bullet’ that will resolve the problem of shrinking support for public higher education and its students, these recommendations can help set the stage for a renewed compact among states, public institutions of higher education, and students and their families.

## NOTES

- 1 More details of the contributions from each of these sources are provided later in this chapter.
- 2 For a more detailed history of the state support of higher education, see Heller (2002).
- 3 Tuition and fees here are calculated before student aid is deducted. Local governments are included with state governments because some states have relatively large levels of appropriations to community colleges from municipal or county tax revenues. In fiscal year 1996, approximately 11 per cent of the \$51 billion contributed by state and local governments combined originated from local governments (National Center for Education Statistics 2003a: table 333). While some states do provide direct appropriations to private institutions, the great majority of these funds are allocated to public institutions. Over 97 per cent of state and local appropriations in 1999–2000 were directed to public institutions (author’s calculations from National Center for Education Statistics 2003a: tables 334–336).
- 4 Again, it is important to note here that the tuition and fee revenues described here do *not* include the portion that is covered by student financial aid. A portion of these increases in tuition is offset by increases in grants, loans and work study aid. The role of financial aid is described later in this chapter.
- 5 The reasons for these cost increases are complex and beyond the scope of this chapter. Two recent books (Clotfelter 1996; Ehrenberg 2000) have focused on the explanation for increasing costs (as opposed to prices) in higher education. While both primarily discuss private higher education, their accounts are still relevant for public institutions. In addition, a recent study conducted for the National Center for Education Statistics (Cunningham et al. 2001) examined the reasons behind both cost and price increases in the public and private sectors.
- 6 The National Center for Education Statistics (NCES) does not require institutions to break out tuition and fees received from undergraduate versus graduate students. Thus, the figures reported in this section include both enrolments and tuition revenues for all students in public institutions. In 2000, 90 per cent of the students enrolled in public institutions were undergraduates (National Center for Education Statistics 2003a: table 177). It should also be noted that the tuition and fee revenues reported to NCES are gross of financial aid received. Because institutions are not required to break out spending on institutional grants by level of students (undergraduate versus graduate), it is impossible to calculate how much public institutions are discounting the gross tuition revenue for undergraduate students.
- 7 Other major sources of revenues include private gifts, endowment income and sales of auxiliary activities (including food, housing and hospital services).
- 8 Household income data are available only to 2002, at which point median household income in the nation was 139 per cent higher than in 1980.
- 9 See Greenberg (1997) for an excellent analysis of the politics behind and impact on higher education of the GI Bill.
- 10 The federal government did create the National Defense Student Loan (NDSL) program in 1958, as part of the National Defense Education Act. Now called the Perkins Loan Program, it was limited in scope and has remained a fairly small programme of the federal government.
- 11 These are totals only for grants and loans, excluding college work study awards (which totalled less than 2 per cent of all federal student aid in 2003).
- 12 When first implemented in 1993, a family income eligibility cap of \$66,000, or approximately twice the median family income in the state, was imposed. This was increased to \$100,000 the following year, and the cap was eliminated entirely in 1995.

- 13 See Cornwell and Mustard (2002), Dynarski (2000) and Mumper (1999) for history and analyses of the Georgia HOPE scholarship program.
- 14 See Ferreri (2003) and Hebel (2004) for description of recent efforts by public universities to use institutional aid to ensure access for low income students.
- 15 See Heller and Nelson Laird (1999), Lapovsky and Hubbell (2000, 2003), Redd (2000) and Reindl and Redd (1999) for recent analyses of the practice of tuition discounting by colleges and universities.
- 16 Dependent students are often described as ‘traditional’ college students, under age 25, unmarried and still claimed as dependents on their parents’ tax returns.
- 17 There are also many different kinds of student loans. Federal subsidised loans provide both a below-market, government-subsidised interest rate to the borrower, as well as deferment of the interest on the loan while the student is enrolled in college. Unsubsidised loans are still guaranteed by the federal government, but charge a higher interest rate and provide no in-school deferral of interest charges. Private loans, offered by many banks and other lenders outside of the federal loan programmes, generally charge a market interest rate, with the interest accruing throughout the life of the loan.
- 18 See for example Hossler, Schmit and Vesper (1999) and McDonough (1997) for analyses of the effect of these factors on college participation.
- 19 While there is little history of coordinating state financing efforts, the Western Interstate Commission for Higher Education (2004), a non-profit organisation dedicated to improving higher education in the western states of the US, is currently engaged in a project to work with states at improving coordination of these policies.
- 20 In figure 4, it can be seen that state and local appropriations per student increased by \$1000 in constant dollars between 1995 and 2001.
- 21 In 1990 and 1998, the increase in higher education expenditures exceeded that of total state budgets by one-tenth of a percentage point.
- 22 This estimate was prepared in August 2004 by the State Higher Education Executive Officers (2004), and included data from 44 states.
- 23 See Marin (2002) for ways of improving the equity of merit scholarship programmes.

## REFERENCES

- Advisory Committee on Student Financial Assistance. *Empty Promises: The Myth of College Access in America*. Washington, DC: US Department of Education, 2002.
- American Council on Education. *The Brave New (and Smaller) World of Higher Education: A Transatlantic View*. Washington, DC: American Council on Education, 2002.
- Breneman, D.W. and J.E. Finney. “The Changing Landscape: Higher Education Finance in the 1990s.” In Callan, P.M. and J.E. Finney (eds). *Public and Private Financing of Higher Education*. Phoenix: Oryx Press, 1997, 30–59.
- Bureau of Labor Statistics. *Consumer Price Index – All Urban Consumers [online data file]*. US Department of Commerce, 2004, <http://www.bls.gov/cpi/home.htm>.
- Center for the Study of Education Policy. *State Tax Appropriations to Higher Education, Fiscal Year 2001*. Normal: Illinois State University, 2001.
- Center for the Study of Education Policy. *Appropriations of State Tax Funds for Operating Expenses of Higher Education*. Normal: Illinois State University, 2004.
- Center for the Study of Education Policy. *Appropriations of State Tax Funds for Operating Expenses of Higher Education*. Normal: Illinois State University, various years.
- Clotfelter, C.T. *Buying the Best: Cost Escalation in Elite Higher Education*. Princeton, NJ: Princeton University Press, 1996.
- College Board. *Trends in College Pricing, 2003*. Washington, DC: College Board, 2003a.
- College Board. *Trends in Student Aid, 2003*. Washington, DC: College Board, 2003b.
- Cornwell, C. and D. Mustard. “Race and the Effects of Georgia’s HOPE Scholarship.” In Heller, D.E. and P. Marin (eds). *Who Should We Help? The Negative Social Consequences of Merit Scholarships*. Cambridge, MA: Harvard Civil Rights Project, 2002, 57–72.

- Cunningham, A.F., J.V. Wellman, M.E. Clinedinst and J.P. Merisotis. *Study of College Costs and Prices, 1988–89 to 1997–98, Volume 1*. NCES 2002–157. Washington, DC: US Department of Education, National Center for Education Statistics, 2001.
- Dynarski, S. “Hope for Whom? Financial Aid for the Middle Class and its Impact on College Attendance.” *National Tax Journal* 53.3 [Part 2] (2000): 629–661.
- Ehrenberg, R.G. *Tuition Rising: Why College Costs so Much*. Cambridge, MA: Harvard University Press, 2000.
- Fenske, R.H. and J.D. Boyd. *State Need-based College Scholarship and Grant Programs: A Study of Their Development, 1969–1980*. New York: College Entrance Examination Board, 1981.
- Ferreri, E. “UNC to Boost Aid for Low-income Students.” *Herald-Sun*, 2 October, 2003, A1.
- Greenberg, M. *The GI Bill: The Law that Changed America*. New York: Lickle Publishers, 1997.
- Hebel, S. “U. of Virginia Announces New Student-aid Policy.” *Chronicle of Higher Education*, 20 February, 2004, A24.
- Heller, D.E. “Student Price Response in Higher Education: An Update to Leslie and Brinkman.” *Journal of Higher Education* 68.6 (1997): 624–659.
- Heller, D.E. “Trends in the Affordability of Public Colleges and Universities: The Contradiction of Increasing Prices and Increasing Enrollment.” In Heller, D.E. (ed.). *The States and Public Higher Education Policy: Affordability, Access, and Accountability*. Baltimore, MD: The Johns Hopkins University Press, 2001, 11–38.
- Heller, D.E. “The Policy Shift in State Financial Aid Programs.” In Smart, J.C. (ed.). *Higher Education: Handbook of Theory and Research, vol. XVII*. New York: Agathon Press, 2002, 221–261.
- Heller, D.E. “State Merit Scholarship Programs: An Overview.” In Heller, D.E. and P. Marin (eds). *State Merit Scholarship Programs and Racial Inequality*. Cambridge, MA: The Civil Rights Project at Harvard University, 2004, 13–22.
- Heller, D.E. and T.F. Nelson Laird. “Institutional Need-based and Non-need Grants: Trends and Differences Among College and University Sectors.” *Journal of Student Financial Aid* 29.3 (1999): 7–24.
- Higher Education Act of 1965, Pub. L. No. 89–329, 1965.
- Hossler, D., J.P. Lund, J. Ramin, S. Westfall and S. Irish. “State Funding for Higher Education: The Sisyphean Task.” *Journal of Higher Education* 68.2 (1997): 160–190.
- Hossler, D., J. Schmit and N. Vesper. *Going to College: How Social, Economic, and Educational Factors Influence the Decisions Students Make*. Baltimore, MD: The Johns Hopkins University Press, 1999.
- Hovey, H.A. *State Spending for Higher Education in the Next Decade: The Battle to Sustain Current Support*. San Jose, CA: National Center for Public Policy and Higher Education, 1999.
- Jackson, G.A. and G.B. Weathersby. “Individual Demand for Higher Education.” *Journal of Higher Education* 46.6 (1975): 623–652.
- Jenny, N.W. and E. Arbak. “Challenges for Financing Public Higher Education.” *Rockefeller Institute State Fiscal News*, 4, March, 2004, 1–6.
- Knapp, L.G., J.E. Kelly, R.W. Whitmore, S. Wu, B. Levine and S. Huh. *Enrollment in Postsecondary Institutions, Fall 2001 and Financial Statistics, Fiscal Year 2001*. NCES 2004–155. Washington, DC: US Department of Education, National Center for Education Statistics, 2003.
- Labi, A. “Across Western Europe, Students Protest Plans to Increase Tuition.” *Chronicle of Higher Education*, 19 December, 2003, A40.
- Lapovsky, L. and L.L. Hubbell. “Positioning for Competition.” *NACUBO Business Officer* 33.9 (2000): 22–30.
- Lapovsky, L. and L.L. Hubbell. “Tuition Discounting Continues to Grow.” *Business Officer* 36.9 (2003): 20–27.
- Leslie, L.L. and P.T. Brinkman. *The Economic Value of Higher Education*. New York: American Council on Education/Macmillan Publishing, 1988.
- Lingenfelter, P.E., H.P. L’Orange, S.B. Winter and D.L. Wright. *State Higher Education Finance FY 2003*. Denver, CO: State Higher Education Executive Officers, 2004.
- Long, B.T. “The Impact of Federal Tax Credits for Higher Education Expenses.” NBER Working Paper 9553. Cambridge, MA: National Bureau of Economic Research, March, 2003.
- Marcus, J. “U.K. Adopts ‘Top-up’ Tuition Fees.” *National Crosstalk* 12.3 (2004): 14–16.
- Marin, P. “Merit Scholarships and the Outlook for Equal Opportunity in Higher Education.” In Heller, D.E. and P. Marin (eds). *Who Should We Help? The Negative Social Consequences of Merit Scholarships*. Cambridge, MA: Harvard Civil Rights Project, 2002, 109–114.

- McDonough, P.M. *Choosing Colleges: How Social Class and Schools Structure Opportunity*. Albany: State University of New York Press, 1997.
- Morey, L. "Student Fees in State Universities and Colleges." *School and Society* 28.712 (1928): 185–192.
- Mumper, M. "HOPE and its Critics: Sorting Out the Competing Claims About Georgia's HOPE Scholarship." Paper presented at the Annual Meeting of the Association for the Study of Higher Education, San Antonio, TX, November, 1999.
- Mumper, M. "The Paradox of College Prices: Five Stories With no Clear Lesson." In Heller, D.E. (ed.). *The States and Public Higher Education Policy: Affordability, Access, and Accountability*. Baltimore, MD: The Johns Hopkins University Press, 2001, 39–63.
- National Association of State Budget Officers. *State Expenditure Report*. Washington, DC: National Association of State Budget Officers, various years.
- National Association of State Scholarship and Grant Programs. *NASSGP/NASSGAP Annual Survey Report*. Deerfield, IL; Harrisburg, PA; and Albany, NY: Illinois State Scholarship Commission; Pennsylvania Higher Education Assistance Agency; and New York State Higher Education Services Corporation, various years.
- National Center for Education Statistics. *Digest of Education Statistics, 2002*. NCES 2003–060. Washington, DC: US Department of Education, 2003a.
- National Center for Education Statistics. *Projections of Education Statistics to 2013*. NCES 2004–013. Washington, DC: US Department of Education, 2003b.
- National Center for Education Statistics. *Digest of Education Statistics, 2003*. Washington, DC: US Department of Education, 2004a, [http://nces.ed.gov/programs/digest/d03\\_tf.asp](http://nces.ed.gov/programs/digest/d03_tf.asp).
- National Center for Education Statistics. *National Postsecondary Student Aid Study 1992–1993 Data Analysis System*. Washington, DC: US Department of Education, 2004b, <http://nces.ed.gov/das/>.
- National Center for Education Statistics. *National Postsecondary Student Aid Study 1999–2000 Data Analysis System*. Washington, DC: US Department of Education, 2004c, <http://nces.ed.gov/das/>.
- National Education Association. *Financing Higher Education: A Crisis in State Funding*. Washington, DC: National Education Association, 2004, <http://www.nea.org/he/fiscalcrisis/>.
- OECD. *Education at a Glance 2004*. Paris, France: OECD, 2004, [http://www.oecd.org/document/7/0,2340,en\\_2649\\_201185\\_33712135\\_1\\_1\\_1\\_1,00.htm](http://www.oecd.org/document/7/0,2340,en_2649_201185_33712135_1_1_1_1,00.htm).
- Paulson, A. "Colleges Face Spare Changes." *Christian Science Monitor*, 16 March, 2004, 11.
- President's Commission on Higher Education. *Higher Education for American Democracy*. vol. 2. New York: Harper and Brothers, 1947.
- Redd, K.E. *Discounting Toward Disaster: Tuition Discounting, College Finances, and Enrollments of Low-income Undergraduates*. Indianapolis, IN: USA Group Foundation, 2000.
- Reindl, T. and K. Redd. "Institutional Aid in the 1990s: The Consequences of Policy Connections." Paper presented at the NASSGAP/NCHELP Research Network Conference, Savannah, GA, May, 1999.
- Rizzo, M.J. "A (Less Than) Zero Sum Game? State Funding for Public Education: How Public Higher Education Institutions Have Lost." CHERI Working Paper WP42. Ithaca, NY: Cornell Higher Education Research Institute, 2003.
- Sears, J.B. "Our Theory of Free Higher Education." *Educational Review* 65 January (1923): 27–34.
- State Higher Education Executive Officers. *State Tax Appropriations for Higher Education Operating Expenses, Fiscal Years 2004 and 2005*. Denver, CO: State Higher Education Executive Officers, 2004.
- Trounson, R. "Colleges' Budget Crunch Growing; State Funding Cuts are 'Chipping Away' at a Long-admired System of Campuses, and Fee Hikes are Making Higher Education Less Accessible." *Los Angeles Times*, 4 April, 2004, A1.
- United States Bureau of the Census. *Race and Hispanic Origin of Householder – Households by Median and Mean Income: 1967 to 2003 [online data file]*. Washington, DC: United States Bureau of the Census, 2004a, <http://www.census.gov/hhes/income/histinc/ho5.html>.
- United States Bureau of the Census. *Statistical Abstract of the United States: 2003*. Washington, DC: United States Bureau of the Census, 2004b.
- Western Interstate Commission for Higher Education. *Knocking at the College Door: Projections of High School Graduates by State, Income, and Race/Ethnicity 1988–2018*. Boulder, CO: Western Interstate Commission for Higher Education, 2003.
- Western Interstate Commission for Higher Education. *Changing Direction: Integrating Higher Education Financial Aid and Financing Policy*. Boulder, CO: Western Interstate Commission for Higher Education, 2004, [http://www.wiche.edu/Policy/Changing\\_Direction/index.asp](http://www.wiche.edu/Policy/Changing_Direction/index.asp).

Zumeta, W. "Public Policy and Accountability in Higher Education: Lessons From the Past and Present for the New Millennium." In Heller, D.E. (ed.). *The States and Public Higher Education Policy: Affordability, Access, and Accountability*. Baltimore, MD: The Johns Hopkins University Press, 2001, 155–197.

## APPENDIX

### DATA SOURCES FOR ESTIMATES OF REVENUES AND ENROLMENT 1980 TO 2003

#### *Public college enrolments*

- 1980–2000: National Center for Education Statistics (2003a), tables 173 and 200  
 2001: Knapp et al. (2003)  
 2002–2003: National Center for Education Statistics (2003b), table 10, middle projection

#### *Tuition and fee revenues*

- 1980–1999: NCES, *Digest of Education Statistics* (various years), current fund revenues of public degree-granting institutions of higher education  
 2000: Knapp et al. (2003)  
 2001–2003: Increased by the estimated annual increase in public college enrolments (from above) and annual increase in prices in public four-year and community colleges as reported by the College Board (2003a)

#### *State and local appropriations*

- 1980–1999: NCES, *Digest of Education Statistics* (various years), current fund revenues of public degree-granting institutions of higher education  
 2000: Knapp et al. (2003)  
 2001–2003: Lingenfelter et al. (2004)

#### *Federal government revenues*

- 1980–1999: NCES, *Digest of Education Statistics* (various years), current fund revenues of public degree-granting institutions of higher education  
 2000: Knapp et al. (2003)  
 2001–2002: Increased by the change in federal research funding reported in United States Bureau of the Census (2004b), table 220

#### *Consumer Price Index*

- 1980–2001: National Center for Education Statistics (2003a), table 35  
 2002–2003: Bureau of Labor Statistics (2004)

ROSS FINNIE AND ALEX USHER

THE CANADIAN EXPERIMENT IN COST-SHARING  
AND ITS EFFECTS ON ACCESS  
TO HIGHER EDUCATION, 1990–2002

1. INTRODUCTION

Over the 1990s and into the new millennium, the financing of postsecondary education underwent considerable changes in Canada. During the middle part of the earlier decade, institutions saw a real fall in their income from government sources, while students and their families were called upon to at least partly fill this gap through a doubling of tuition fees (in real terms). Canada thus experienced a significant shift in the cost-sharing of postsecondary education, with the proportion of institutional revenue made up of government operating grants dropping from 80% to 60% and much of this gap being made up through higher student fees (Robertson 2003). At the same time, important changes were made to the student financial aid system, as governments shifted spending from need-based aid (grants and loans) to non-need-based aid (especially tax credits).

Few countries have experienced such a large shift in their basic financing arrangements of postsecondary education over so short a period of time. The Canadian case therefore has potentially important lessons for those interested in the effects of cost-sharing on access to higher education and related outcomes. That the specific changes in funding to students and institutions varied significantly across the provinces which comprise Canada's federal system (where postsecondary education is a provincial jurisdiction) only makes the Canadian case more intriguing. The purpose of this chapter is to draw lessons from these changes for an international audience.

The chapter begins with a broad description of Canada's system of higher education, with particular attention paid to its place within the country's overall federal system of governance. We then document the changes in public financing of higher education that occurred in the 1990s, including the associated changes to tuition fees and student financial assistance. This is followed by a review of the evidence regarding the resulting changes in outcomes, including overall enrolments, the characteristics of the student body, and their experiences. A simple theoretical model which we believe is helpful for understanding the Canadian postsecondary system and the changes that have occurred in it is then presented. A short concluding section completes the chapter.

## 2. CANADIAN HIGHER EDUCATION – DESCRIPTION AND POLICY CONTEXT

### *2.1. Postsecondary Education: Federal and Provincial Jurisdictions*

Canada has a federal system of government under which the organisation of education from early childhood to the postgraduate level is organised by the provincial (i.e. sub-national) level of government. This makes Canada exceptional even among federal states, where the national government typically exercises considerable power over this policy area (e.g. the Federal Republic of Germany and the Commonwealth of Australia). As a result, Canada has not one system of higher education but ten.

Canada's postsecondary education system is made up of two different types of institutions. First, there are 'community colleges' and 'trade-vocational' schools, which offer what the English would call programmes of 'further education'. For the most part, these institutions offer programmes of up to two or three years' duration and have relatively open entrance standards (requiring only completed secondary schooling or less).

Second, there are 'universities', which offer programmes of 'higher education'. These institutions nearly all have selective admissions practices requiring, for example, a certain minimum grade point average from secondary school, and offer undergraduate programmes of three to five years in length. The undergraduate degree may be followed by a short (typically one or two years) masters level programme, which is usually heavily course based, but may include a research component (e.g. a thesis). Doctorate programmes, largely on the US model, come after this.

In seven provinces (Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Ontario, Manitoba and Saskatchewan), the university and college systems exist side-by-side with little articulation between the two. In two other provinces (Alberta and British Columbia) there are considerably more linkages between the two sectors (e.g. individuals can start at a college and then transfer to a university and vice versa). In Quebec, the two systems are partially sequential in that a college – or 'CEGEP' (college d'éducation general et professionnel) – education is a prerequisite to entering university, while colleges also provide terminal vocational programmes similar to college programmes in the rest of the country.

Each province also exercises control over tuition policy and has its own system of student assistance. As a result, the extent of cost-sharing can differ substantially from province to province. In 2003–04, for example, university students in Nova Scotia paid on average tuition fees of \$5557 (Cdn\$1.00 = US\$0.77 = €0.64 at time of writing) and received loans from the provincial government, whereas students in Quebec paid just \$1862 in tuition fees and benefited from the country's most generous system of grants.

These provincial differences in the organisation and financing of postsecondary education obviously pose challenges for any general or 'unitary' analysis of the 'Canadian system'. But these differences also make for an excellent policy laboratory,

allowing the effects of different policy combinations on postsecondary outcomes to be observed.

Postsecondary education is formally under the control of the provinces, and the federal government cannot make direct grants to educational institutions under provincial jurisdictions. Nevertheless, the federal government plays several important roles in the financing of postsecondary education in Canada. The first is the provision of block grants to provinces for the general provision of social services, including postsecondary education.<sup>1</sup> Its second role is the funding of research and development activities, which, even when they go to university-based activities, are not seen as subject to the prohibition on direct federal funding of educational institutions. The final – and for our purposes, most interesting – role has been in the provision of student assistance, a policy field it shares with the provinces.

## *2.2. The Structure of Student Financial Aid in Canada*

The ‘Canadian system’ of student assistance is dauntingly complex. There are loan programmes at the federal and provincial levels, provincial need-based grant and debt remission programmes, other grants for particular demographic groups and those in certain disciplines (e.g. Aboriginals, female graduate students in the sciences), still more grants and tax credits for families who save for their children’s education, additional tax credits to help defray education-related expenses (tuition fees and the standard education credit) directly as well as the interest paid on student loans, various forms of institutional-based aid, private bursaries, and more.

One key element in this system is the national Canada Student Loans Program (CSLP), which covers nine provinces and one territory (the ‘CSLP zone’); Quebec and two of the territories have opted-out of the federal system and receive payments in lieu. Within the CSLP zone, federal and provincial student loan and grant systems are integrated to a considerable extent, but differing programme parameters at the provincial level mean that students in similar circumstances may receive very different amounts of aid in different provinces.

To the extent that it is possible to generalise, the main need-based system of loans and grants is restricted to full-time students (a small part-time loan programme is barely used) and is delivered on the basis of assessed need based on estimated resources minus costs. If the student is less than five years out from secondary school, resources include an ‘assumed’ parental contribution based on income. Assistance comes first, and primarily, in the form of loans. Grants are generally only given to those whose assessed need or actual borrowing exceeds certain limits, which vary considerably by province. Loans are guaranteed by government and accumulate no interest during the period of study; after the period of study finishes, interest is charged (the methods for determining the precise rate at which interest is charged has varied over time). As is discussed further below, roughly one-third of aid is provided in the form of non-repayable assistance; however, nearly half of this comes in the form of loan remission paid at the end of a period of study rather than more traditional up-front grants.

While federal and provincial programmes are integrated at the level of need assessment and programme delivery (provinces handle the operations of the federal programme), the two sets of programmes are not integrated at the policy level. On occasion, this can lead to severe policy incoherence, where initiatives at one level of government have more effect on another level of government's finances than they do on student welfare. For instance, when the Government of Canada introduced a new \$300 million per year need-based grant for students through the creation of the Canada Millennium Scholarship Foundation, one of the main effects was not to make students better off, but rather to displace a considerable amount of existing provincial assistance (see Queen's University 2003). Conversely, when the Government of Canada announced in the winter of 2004 that it wished to raise loan limits, it quickly became apparent that provincial governments would automatically be forced into assuming much greater costs on their loan remission programmes (EPI 2004).

In addition to student loans and grants, governments also provide student aid through an extensive series of non-refundable tax credits, which Canada relies on to a much greater extent than any other country. A final method of federal financing is through a matching educational savings programme known as the Canada Education Savings Grant, which has no provincial equivalent.

Educational institutions themselves are also policy actors in the field of access to higher education, albeit ones with considerably less freedom of action than the two levels of government. In some jurisdictions, educational institutions have the latitude to set their own level of undergraduate tuition fees within a certain price band, although this 'freedom' usually results in all institutions charging the same maximum. Tuition fees at graduate and professional schools are less regulated by government, and in some jurisdictions charges for medicine, dentistry and business schools approach \$20,000 per year or more. Institutions also provide roughly \$600 million per year in financial aid to students, although only about \$100 million per year is need-based funding for undergraduates; much of the balance is made up of merit scholarships or support payments for graduate students (Junor and Usher 2004).

### 3. CHANGES IN CANADIAN HIGHER EDUCATION POLICY<sup>2</sup>

#### *3.1. The Underlying Policy Environment*

As was the case in many other countries, Canadian governments ran large deficits during the 1980s. At the federal level, the annual deficit reached 8% of GDP in 1984–85 and even during the economic expansion of the late 1980s it never went much below 4%. During the recession of the early 1990s, it was equal to 8.5% of GDP, well above the OECD average of 5%, and the total indebtedness of all levels of government was over 100% of GDP. The dollar was sliding, interest rates were rising, and the perception was growing that the country was in a state of serious fiscal crisis.

As a result, from 1993 onwards, Canadian governments of all political stripes began to reduce public spending. At the federal level, programme spending was cut to its lowest level in 50 years in real terms. Much of the expenditure reduction took the form of cuts in federal transfer payments to provinces for social programmes (including postsecondary education) which meant that provinces had to cope with a reduction in revenue at the same time they were dealing with their own fiscal crises. Education in general was not treated as harshly as some other programme areas, though it still came off poorly in comparison with health care expenditures, and most education systems experienced major cutbacks over the period 1993–98.

These fiscal dynamics coincided with a national unity crisis. Following the failure of two different constitutional accords to be ratified in 1990 and 1992, a pro-separatist government was elected in Quebec in 1994. Despite the defeat of a referendum on separation in 1995, the razor-thin margin of victory ensured that the threat of separation continued to hang over the country for much of the decade. In addition, the overall poor economic climate in the first half of the decade accentuated divisions between ‘have’ and ‘have-not’ regions of the country.

As a result of this national unity crisis, federal government decisions on taxation and public expenditure were frequently scrutinised for their contribution to the national cause. In particular, there was a fear that, because of the fiscal crisis, the federal government could no longer create or sustain ‘national’ social programmes, and hence that the ‘national’ identity was being threatened by the de facto increase in ‘provincial’ power that occurred due to the erosion of federal spending. Following the 1995 referendum in Quebec, in particular, the Government of Canada made a concerted effort to: a) make its own spending more ‘visible’ to Canadians; and b) introduce initiatives in policy areas where Canadians would feel the greatest effect in their own lives.<sup>3</sup> Hence, as its finances improved, the Government of Canada was pre-disposed towards what might be termed ‘competitive federalism’, a predilection for expenditures that would be visible and popular rather than strategic and coherent – sometimes referred to as ‘putting the Canadian flag on cheques’.

A combination of programme expenditure cuts and a thriving economy put most governments’ finances in the black by the end of the decade. As a result, programme expenditures have tended to rise once again in the new millennium. The fiscal recovery has, however, been more pronounced at the federal level than the provincial level and, as a result, most major spending initiatives have originated in Ottawa rather than in provincial capitals. Given the constitutional structure of postsecondary education, this has meant that spending on research and student aid in the form of student loans and grants and education tax credits (the central government’s three main policy tools) has risen sharply, while spending on core operating grants to institutions – which are delivered by the provinces out of their own revenues along with the federal transfers they receive for these purposes – has remained more stagnant.

All this must also be placed in a context where the federal government seems to have a growing preference to use tax credits as a major instrument of social-economic policy. This general preference for using tax credits gains additional momentum in the specific case of student financial aid for three major reasons. The first is that, unlike investments in student loans and grants, tax credits can be

implemented unilaterally by the federal government, without the need to negotiate changes in shared policy rules with the provinces. The second is that the assistance flows directly from the Government of Canada to the individual citizen. This is a bonus not only in terms of post-referendum ‘visibility’, but also means that federal programme changes cannot be ‘swallowed’ up by the provinces, as happened when the Canada Millennium Scholarship Foundation was created (as mentioned above). The third reason is that tax credits possess a certain useful political versatility in that they can be described either as ‘spending’ or ‘tax cuts’, depending on how the government wishes to present the changes.

### *3.2. Changes in the Financing of Postsecondary Education Policy Since 1990*

In this section we provide evidence on some of the major recent trends in the financing of postsecondary education in Canada, including government transfers to institutions, tuition rates and student financial aid. While these do not represent exhaustive coverage of all that has happened, they are the most critical changes and provide good indicators of the important recent shifts in how postsecondary education is being financed in Canada and the aid being provided to students (and their families) to help them pay their rising share of overall costs and broaden access to those from disadvantaged backgrounds. In the following section, we look at how educational outcomes have changed.

#### *3.2.1. Government Transfers to Postsecondary Institutions*

Direct transfers from governments represent, by far, Canadian postsecondary institutions’ most important revenue source. Tracking these transfers over time can thus tell us much about the state of postsecondary education in Canada, and the government’s commitment to postsecondary schooling.

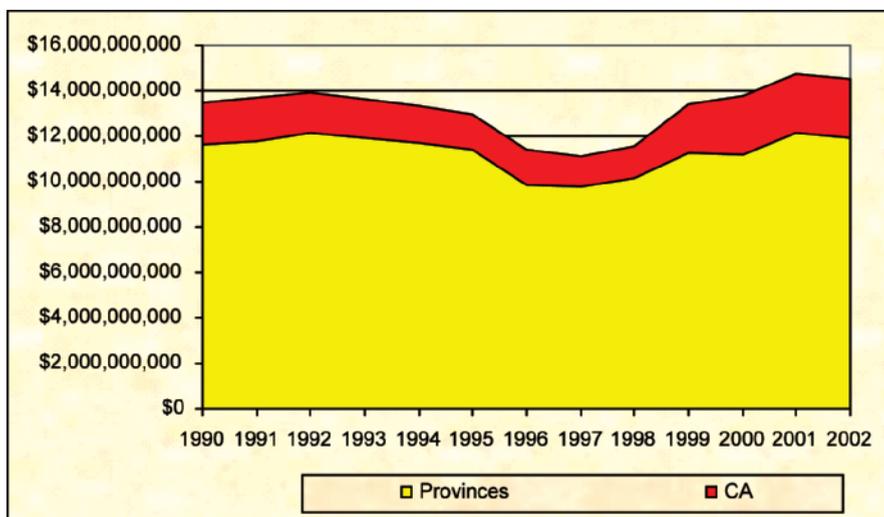
From 1990 to 2002, total government transfers to postsecondary institutions were first frozen, then reduced, then gradually increased to end at approximately the same overall level as at the beginning of the period (figure 1). However, a good proportion of the new spending was on research and infrastructure rather than on the teaching function per se (differentiating spending tightly in this respect is difficult to do, and we do not attempt it here). Since student enrolment also increased over this period (see below), teaching-related transfers almost certainly remained substantially below earlier levels and have declined even more significantly on a per student basis.

#### *3.2.2. Tuition Fees*

During the 1980s, real tuition levels were basically stagnant nationally at about \$1800 (in real 2003 dollars) at both the graduate and undergraduate levels. In 1990 (figure 2), the situation began to change when the province of Quebec – which had not changed tuition fees since the 1960s – announced a tuition increase of approximately 130% over two years. While Quebec froze its fees again shortly thereafter, tuition levels in other jurisdictions rose – although the pace of the increases varied from province to province. The net result is that between 1989–90 and 1998–99, undergraduate tuition generally doubled at the national level. Tuition

fees have continued to rise since then, but at a considerably more moderate pace, except in graduate and, especially, professional programmes, where substantial increases have continued.

The story in the college sector is nearly identical to that in the universities, except that Quebec has kept its college system effectively free to users. As a result, the gap between average college and university fees at the national level increased in absolute terms over the fifteen years in question, while it has stayed more or less constant in relative terms at 2:1.



Source: Junor and Usher 2004

Figure 1. Total government transfers to institutions (in \$2003)

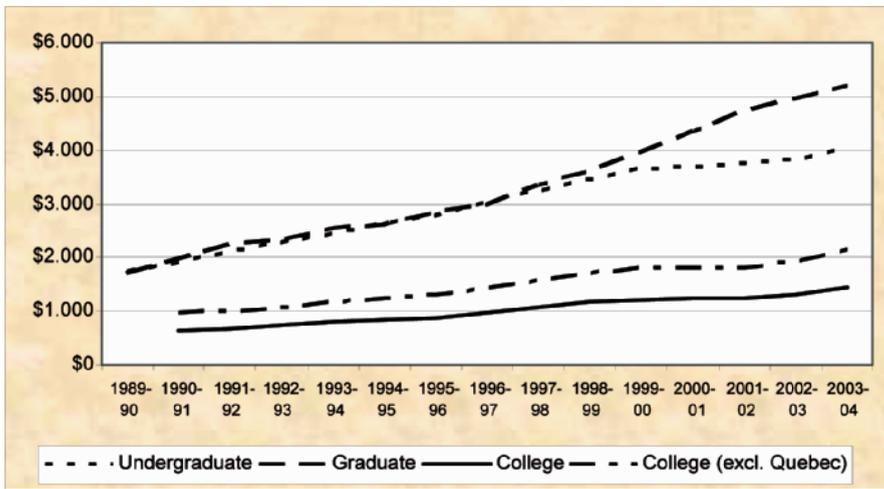
### 3.2.3. Changes in Need-based Student Financial Aid

Canada has three principal types of need-based student financial aid: loans, grants and 'debt remission'. The latter takes various forms, but essentially provides transfers to students either part-way through their studies or at the very end of their programmes in order to pay down student loans accumulated either in the current year or over the full course of their studies. Debt remission is thus effectively equivalent to either a delayed grant which shifts the composition of a student's given financial aid package from loan to non-repayable support (without providing any additional money to meet current needs) after the loan has been taken out, or a form of debt reduction in repayment based on total borrowing levels.

Taking these three forms of aid together, total need-based assistance rose through the earlier part of the 1990s, driven largely by increased borrowing limits in the main federal and provincial loan programmes and the higher tuition fees which bid up students' eligibility for loans (figure 3). The total has, however, been falling

since then, again largely due to the movement in net borrowing (i.e. after loan remission is taken into account).

Looking more specifically at the composition of need-based aid, the non-repayable forms (i.e. grants and debt remission) fell from 32% of the total in 1990–91 to 14% in 1995–96, but have since climbed back to approximately the 30% level. Of these non-loan sources, grants once again represent the majority of all non-repayable assistance after the popularity of remission programmes grew in the mid-90s, and then waned as it was realised that the ‘student borrowing crisis’ had been greatly exaggerated and that pure up-front grants plus greater assistance in repayment based on the student’s current circumstances were fairer, more efficient, and more effective forms of student aid than debt remission (see Queen’s University 2003; Finnie, Usher and Vossensteyn 2004).



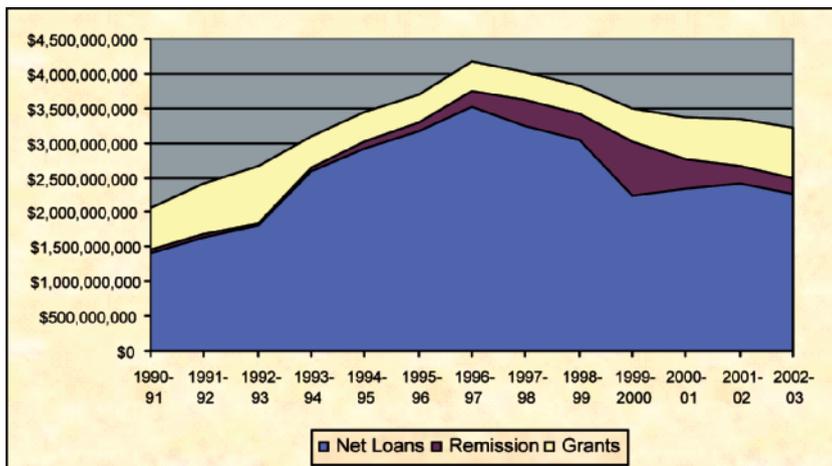
Source: Junor and Usher 2004

Figure 2. Canadian tuition rates from 1989 to 2004 (in \$2003)

The period from 1993 to 1999 was thus characterised by an ever-increasing reliance on loans as a policy tool, but the pattern has reversed since then. That said, the overall decline in need-based aid in recent years is noteworthy, especially as it comes as tuition levels have attained historically high levels and concerns about access to postsecondary education among those from lower income families have risen.

In terms of precise numbers, in 2002–03, the most recent year for which data are available, Canadian students received \$3.2 billion in loans and grants. This represents a drop of 23% from its high point of just under \$4.2 billion in 1996–97. More than 100% of this decrease was due to a decrease in loans, whereas non-repayable assistance actually increased by 47% in the intervening seven years,

thanks mostly to the Government of Canada's decision to create the Canada Millennium Scholarship Foundation.



Source: Junor and Usher 2004

Figure 3. Aggregate need-based assistance by type, 1990–2003 (in \$2003)

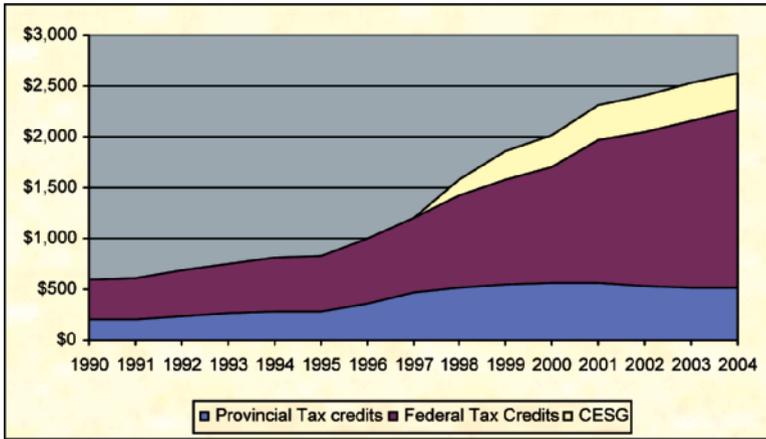
### 3.2.4. Changes in Non-Need-based Aid

The 1990s saw a large increase in non-need-based student financial aid in Canada (figure 4). During the late 1990s, in particular, the Government of Canada introduced a series of new tax benefits and increased the generosity of existing benefits aimed at students. These initiatives included increases in the general credits allowed for education-based expenses, a new tax credit for interest charges on student loans for those in repayment, and increased tax exemptions for scholarships and awards. The result is that, since 1992, the federal government has nearly quadrupled its spending on tax credits related to postsecondary education, and the provinces have largely followed suit, although at lower levels.<sup>4</sup> None of these measures are linked to actual student need, with the possible exception of the student aid interest credit, which is tangentially related to need in an extremely post hoc fashion.

Another significant programme of non-targeted aid, introduced in 1998, is the Canada Educational Savings Grant (CESG), which matches families' own savings for their children's future education up to a maximum of \$400 per year (on a family contribution of \$2000). In practice, this aid again tends to go to higher, rather than lower, income families, since they are more able to save.

Other forms of non-need-based aid exist, but the education-related tax credits and the CESG programme account for by far the greatest part, and are also easier to estimate on an annual basis, and thus show the principal identifiable trends in these

forms of aid since 1990. The obvious, and important, story here is that as need-based aid has fallen in recent years, non-need-based aid has risen.



Source: Junor and Usher 2004

Figure 4. Total expenditures on non-need-based transfers to individuals for postsecondary students since 1990 (in millions of \$2003)

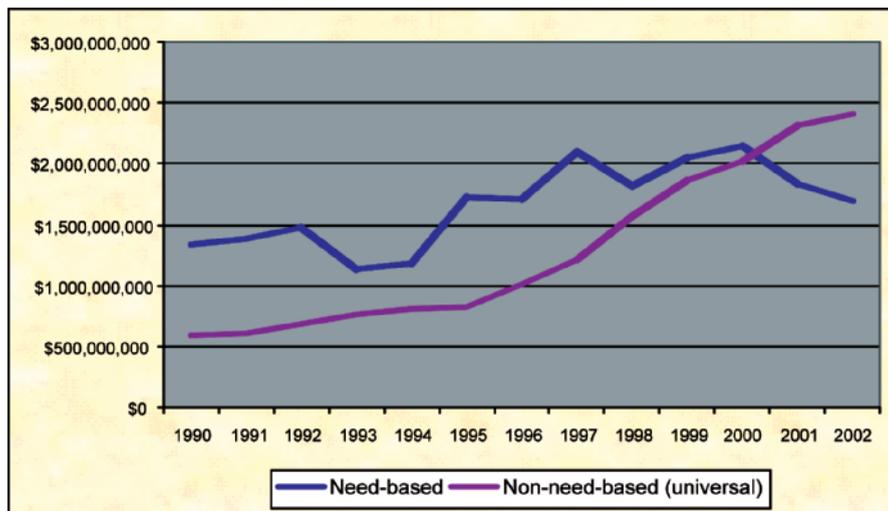
### 3.2.5. Comparative Changes in Need-based and Non-Need-based Aid

Figure 5 further highlights the evolution of need-based and non-need-based transfers to individuals in support of postsecondary education in Canada, here showing the story from the perspective of programme spending on the different kinds of aid as opposed to how much students receive (e.g. student loans cost less than the actual amount of aid received by students because most loans are repaid). Since the 1996 federal budget (which was the first to contain new tax expenditures), nearly all expenditure growth in Canada has been on the non-need side, and the increases in certain need-based spending (such as the Canada Millennium Scholarship Foundation and its bursaries) have been more than offset by reductions in other need-based expenditures. In 2001, for the first time, non-need-based assistance formed a larger part of total transfers to individuals than need-based assistance, and the trends seem to point to a widening of this gap in future years.<sup>5</sup>

### 3.2.6. Summarising the Changes

The trends shown here are stark, and potentially important. Government transfers to postsecondary institutions have declined. Tuition fees have risen, largely in an attempt to make up for the resulting drop in revenues even as enrolments have risen and put additional pressure on the system's capacity. Student financial aid has moved in different directions: need-based aid has shifted back and forth in composition, but has generally declined overall; the amount of non-need-based aid

received has risen, while government spending on student aid has remained approximately steady as it has shifted in similar directions – away from need-based aid and towards non-need-based aid. What have been the ‘results’ of these changes? Or, at least – without trying to overextend ourselves in terms of the direct causal links between policy changes and outcomes – what has been happening to the postsecondary system in terms of the numbers and characteristics of those attending? Those patterns, to which we now turn, are predictable in some ways, surprising in others.



Source: Junor and Usher 2004

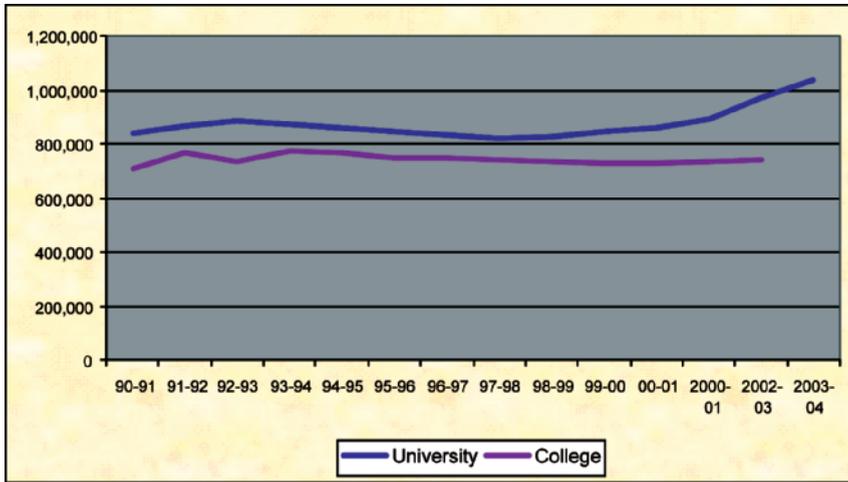
Figure 5. Need-based vs non-need-based ('universal') expenditures 1990–2002 (in \$2003)

#### 4. POSTSECONDARY EDUCATION OUTCOMES: TRENDS IN ENROLMENT, PARTICIPATION AND ACCESS

Having described the general policy environment regarding postsecondary education and some of the specific developments of the last decade and a half, we now turn to how the system has evolved over that same period in terms of enrolment, participation and access.

##### 4.1. Enrolment and Participation Rates

After very strong enrolment growth at both the university and college levels through the late 1980s and early 1990s, this trend reversed, and small declines were registered over the rest of the decade (figure 6).



Source: Junor and Usher 2004

*Figure 6. Postsecondary enrolment in Canada, 1990–2004*

One factor underlying these trends was a basic demand-side development: the ‘echo’ of the baby boomer generation came into its postsecondary years, thus reducing the pool of potential students. The decline in total enrolment was, however – at least in a statistical sense – due entirely to reduced numbers of older adults in part-time studies; this pattern contradicted the popular notion of the increasing importance of ‘lifelong learning’. At the turn of the millennium, enrolment again began to grow sharply in the university sector, though not at colleges.

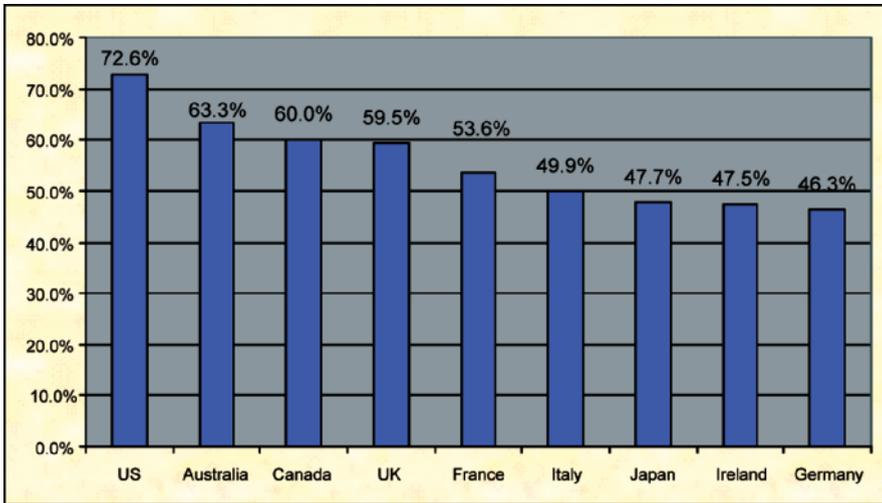
Layered over these enrolment patterns at the national level, however, are some important differences at the provincial level. One cause of these divergences is the underlying demographic trends (the populations of some provinces have been growing more than others), as well as regional differences in economic growth and the returns to postsecondary education – that is, demand-side factors over which education authorities have little control. Also at play, however, have been decisions regarding education policy per se, including those on both the demand side (e.g. student financial aid programmes), and the supply side (transfers to institutions). Relating these different trends at the provincial level could thus perhaps help us understand which factors have had most influence on enrolment rates and, therefore, help make better informed policy decisions. We do not undertake such an exercise in any substantial way in this chapter, but we do give some examples of the sorts of comparisons which could be made in order to point to where further work along these lines could be revealing (see also section 5 below).

Participation rates (figure 7) provide an alternative perspective of postsecondary attendance patterns to enrolment rates, as they effectively adjust for population trends. For Canada as a whole, participation rates for the key 18/19–21/22 age group



This comparison raises questions as to what other countervailing demand-side factors might have helped produce these trends, but probably more significantly points to the importance of the supply side of the postsecondary enrolment/participation equation. In Canada, where postsecondary education lies almost entirely in the public sector, ‘supply-side issues’ rest squarely in the domain of transfers to institutions and other rules and decisions which otherwise determine capacity. Other provincial comparisons could take this analysis further, but are beyond the scope of this chapter.

How do participation rates in Canada stack up at the international level? Cross-country comparisons are difficult for a number of reasons, not least of which are different education systems with different pathways and degree lengths, as well as different data collection procedures. To get around this difficulty, UNESCO has come up with a relatively effective – if crude – method of making comparisons across countries. The Gross Enrolment Ratio takes the sum of all university (tertiary) level students enrolled at the start of the school year, and expresses this number as a percentage of the mid-year population in the five-year age group after the official secondary school leaving age (in the case of Canada, this would mean age 20). These comparisons (figure 8) show that Canada ranks towards the top in terms of university enrolment rates: significantly behind the US, but solidly in the next tier (with Australia and the UK) and substantially above the other European countries shown.



Source: UNESCO Institute for Statistics 2004

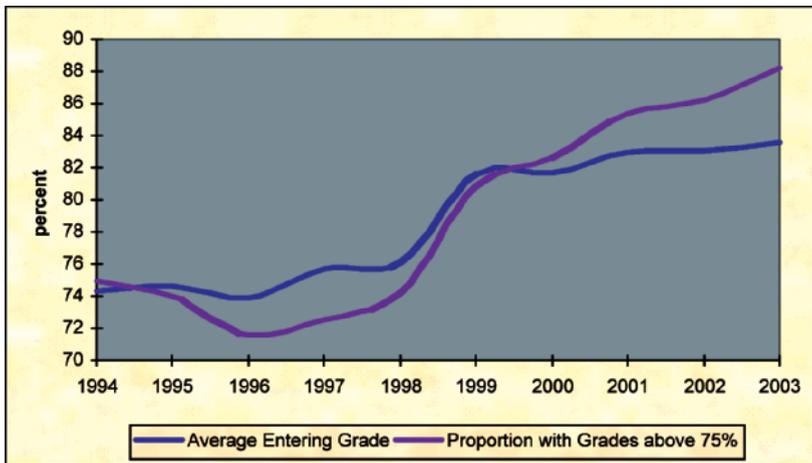
*Figure 8. Gross enrolment ratios for university-level studies, selected countries, 2000*

#### 4.2. Admissions Standards

If we assume that the capacity of the postsecondary system was being constrained as direct government transfers fell through the 1990s, we might be able to identify these effects by looking at admissions standards: if supply was shifting back while demand remained more constant, we would expect admissions standards to rise as the system rationed its available places.

Institutional selectivity is inherently difficult to measure, and perhaps more so in Canada than the US, due to the absence of ‘objective’ admissions tests. Probably the best data available are those published by *Maclean’s* magazine in its annual university rankings issue (akin to *US News & World Report’s* annual rankings). Two of their measures are the percentage of students entering with average high school marks over 75% and the average grade of the incoming class, both available going back to 1994 (here weighted enrolment by institution to derive national averages).<sup>6</sup>

Over the past ten years, increasingly, higher secondary school marks have been required to enter university (figure 9), although it is unclear to what extent this is due to increased competition and selectivity and to what extent it is due to grade inflation. While there are no hard data on this, we might speculate that it is probably a combination of both, with any increased selectivity perhaps serving as fuel for grade inflation. In any event, the data are at least consistent with there having been an increase in selectivity – presumably due to some combination of reduced supply and increased demand.



Source: Junor and Usher 2004

Figure 9. Average entering marks and proportion of students with entering marks above 75%, Canada wide, 1994–2003

### 4.3. *Student Mobility*

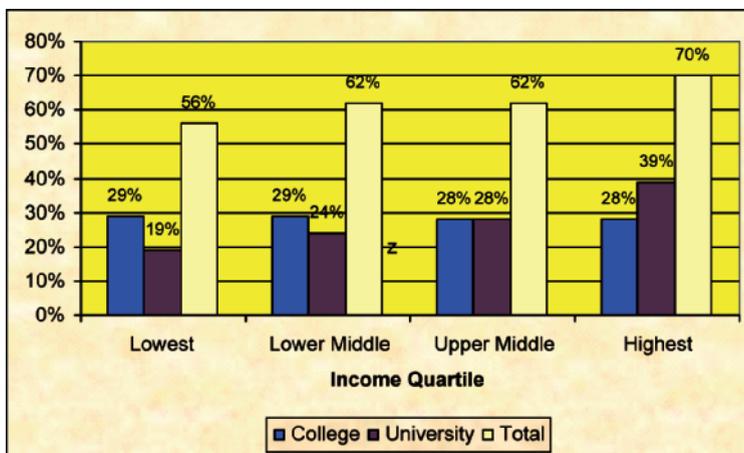
One of the great puzzles of access to education in Canada is that, despite vast differences in the availability of higher education opportunities (youth in Nova Scotia are roughly three times as likely to be enrolled in university as youth in British Columbia) and significant differences in tuition fees (as discussed above), inter-provincial student mobility is relatively limited. Under 5% of students from Ontario and Quebec leave their province to study. Among the four western provinces, roughly 10% from each province leave to study (Alberta being the regional magnet). Only in the Atlantic provinces is there a significant amount of mobility, with as many as one-third of the students in some of the smaller provinces moving to study.<sup>7</sup>

Despite its status as the province with the highest tuition rates in the country and having had the greatest increases in fees through the 1990s, Nova Scotia is the largest net importer of students in the country. This fact – along with the extent and direction of the other inter-provincial flows – has not changed over the period in question even as tuition fees have diverged substantially in a general way across the country.

#### 4.3.1. *Access by Family Background*

Gathering evidence on access to postsecondary education by family background is an inherently challenging task, since individuals must be followed through their (potential) postsecondary years while linked back to their earlier family backgrounds. Samples must be representative and sufficiently large, postsecondary experiences must be accurately profiled and family background characteristics (income, education, socio-economic status) must be reliably measured. And beyond this lie other more specific issues: When should family background be measured? What is the appropriate treatment of divorced or reconstituted families? What is the appropriate definition of ‘access’? Thus, while we are able to present some interesting evidence on access to postsecondary education by family background in Canada, the results should generally be interpreted as tentative, and point to the need for more research, including the establishment of an ongoing mechanism for measuring these relationships.

Those caveats offered, an analysis based on one of Canada’s flagship longitudinal datasets, the SLID (Survey of Labour and Income Dynamics), indicates that among 18 to 21 year olds in the highest family income quartile, almost 40% had attended university at some point, making them twice as likely as those from low income families to have done so (figure 10). With respect to college studies, almost 29% of young people aged 18 to 21 had attended a community college, CEGEP (Quebec) or trade school, the rates varying only slightly by income level. From a different perspective, children from low income families who had pursued any postsecondary education were more likely to have gone to a college than a university, while the reverse was true of children from high income families. The overall picture is one of large differences in overall postsecondary rates by family background, driven entirely by university numbers.



Note: Lowest quartile = \$33,000 or less; lower middle = \$33,000 to \$50,000; upper middle = \$50,000 to \$67,000; and highest quartile = \$67,000 or more. All calculated as post-tax household income (includes children's earnings)

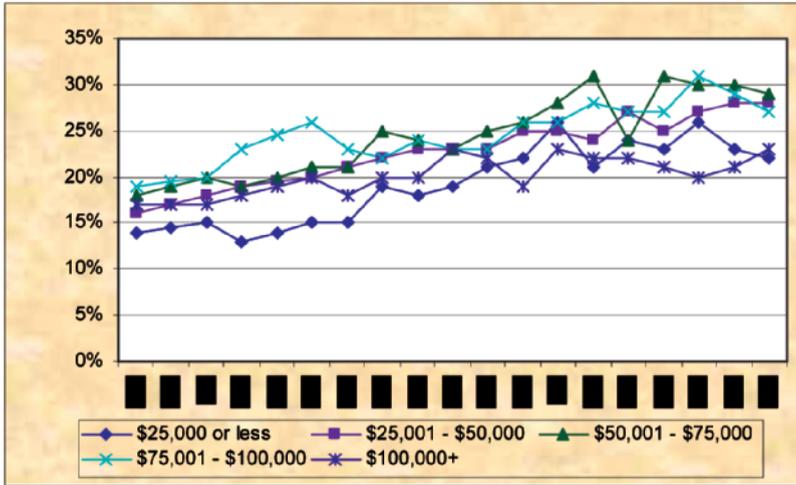
Source: Zhao and De Broucker 2002

Figure 10. Percentage of Canadians 18 to 21 year olds accessing postsecondary education, by income quartile, SLID 1998

There is, however, some provocative evidence that the general trend in postsecondary enrolments has been toward greater equality in access to postsecondary education – despite the increases in tuition fees and decreases in need-based aid that have been observed. Using data from the now-discontinued *Survey of Consumer Finances* (SCF), Corak, Lipps and Zhao (2003) provide trend data on enrolments by income bracket from the late 1970s to the late 1990s (figures 11 and 12).

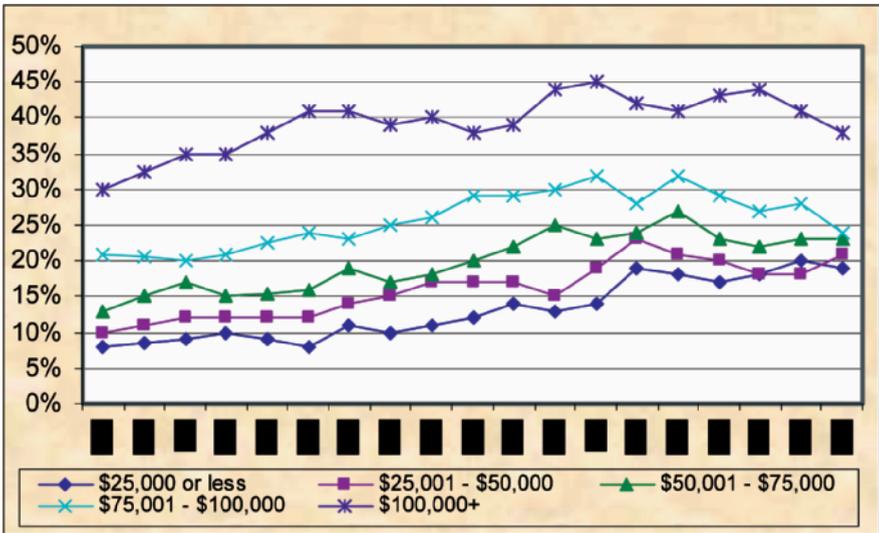
The patterns shown by Corak, Lipps and Zhao are intriguing. Most importantly, the participation rate of children from families with under \$25,000 family income went from just under 9% in university and 14% in college in 1979 to 20% and 22% respectively in 1997. If true, the gradual inclusion of lower income students in postsecondary education in general, and in the university sector in particular, over this period would represent an important success story in Canadian education.

That said, the SCF data are less than ideal for addressing this question, especially since they capture family background only for those individuals living at home, who comprise just 60–70% of all youth, and postsecondary participation, living arrangements and family income are clearly all intertwined. The results should thus probably best be regarded as interesting but far from conclusive.<sup>8</sup>



Source: Corak, Lipps and Zhao 2003

Figure 11. College participation rates of 18 to 24 year olds by parental income bracket in 2001 real dollars, 1979-97



Source: Corak, Lipps and Zhao 2003

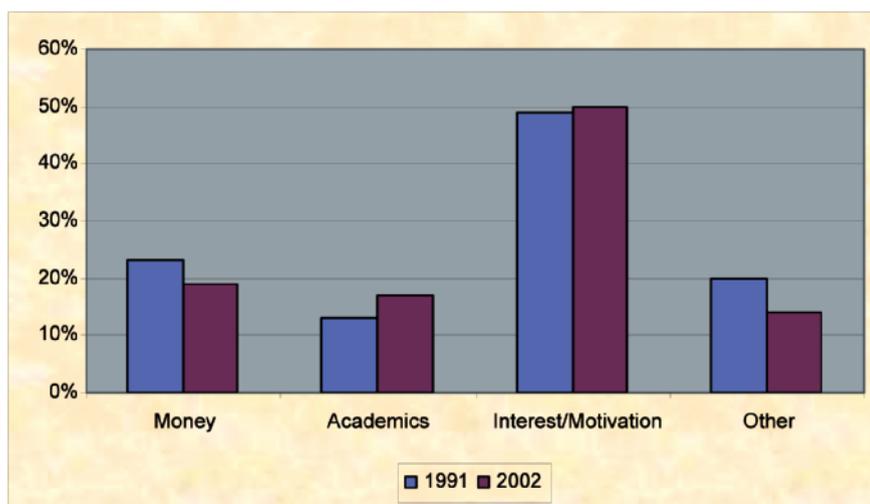
Figure 12. University participation rates of 18 to 24 year olds by parental income bracket in 2001 real dollars, 1979-97

The need for more research is emphasised by the fact that two other surveys which focused on the youth population and held ten years apart – the School Leavers Survey (SLS) and the Youth in Transition Survey (YITS) – indicate that university (and overall) postsecondary participation rates *widened* over the 1990s when family background was measured by parental education (which is available for all youth rather than just those ‘at home’), although it also narrowed between lone-mother and two-parent families (Finnie and Laporte 2004).

#### 4.3.2. Data on Specific Barriers

The 1991 SLS survey and the 2002 *Postsecondary Education Participation Survey* (or PEPS) posed identical questions regarding barriers to postsecondary non-attendance (figure 13).

Probably most interesting is that only around 20% of those who had not attended postsecondary education cited reasons relating to money or financial constraints as being why they did not go. This number was actually lower in 2002 than in 1991, after tuition had doubled, the student financial aid system had shifted towards providing less need-based aid and more non-need-based aid, and various other factors changed in the postsecondary environment. While many interpretations could be ascribed to these data (e.g. perhaps young people are ‘not interested’ for complex reasons possibly themselves related to financial barriers), at least when taken at face value these findings suggest that non-monetary barriers are by far the most important ones in preventing young people from going to college or university – as much now as a decade ago.



Note: Various categories have been collapsed to facilitate direct comparisons

Source: Foley 2002; Finnie and Laporte 2004

Figure 13. Reasons for not pursuing postsecondary studies

Furthermore, table 1 shows that interest/motivation is the *only* type of barrier that affects youth from lower socio-economic backgrounds (as measured by parents' education) proportionately more than youth from higher income backgrounds. On the surface, these numbers thus indicate that interest/motivation is not only the most significant overall barrier to postsecondary education, but also the one most likely to affect students from lower socio-economic backgrounds and create a participation gap between those from lower and higher socio-economic families. This result is consistent with theories of access to postsecondary education that view cultural capital as a determining factor.

*Table 1. Reasons for not attending postsecondary education by father's highest education level*

	<i>Less than secondary %</i>	<i>Completed secondary %</i>	<i>College/Trade %</i>	<i>University %</i>
Proportion not pursuing postsecondary education	52.0	39.0	26.0	13.0
Financial reasons	16.4	15.2	23.2	25.8
Academic reasons	8.7	8.3	14.5	11.1
Interest/motivation reasons	58.5	58.2	37.5	44.1
Other reasons	16.5	18.2	24.8	19.1
Total	100	100	100	100

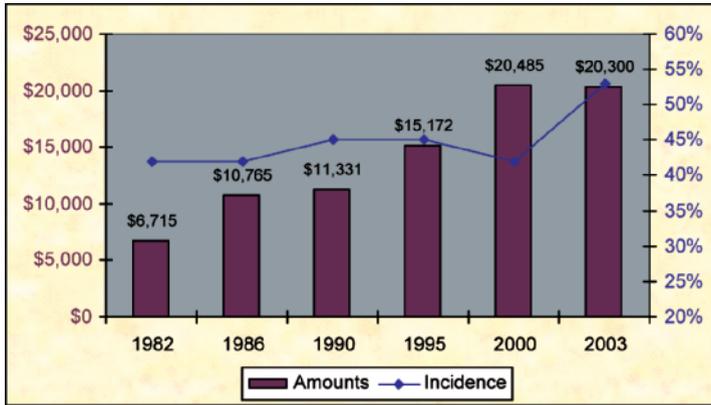
Source: Finnie and Laporte 2004

#### *4.3.3. Borrowing, Debt and Repayment*

Student indebtedness at graduation has been climbing for the better part of twenty years (figure 14) at both university and college levels. Debt actually grew much faster in proportional terms in the early 1980s (when loan programmes were expanded) than it has since. Between 1982 and 1986, student debt increased by about 60% in real dollars. Conversely, growth in debt was almost at a standstill between 1986 and 1990, largely because loan limits were fixed during a time of reasonably high inflation. There was then a large increase in student loan maximums between 1993 and 1995; the effects of this increase worked their way through to graduates' totals in the latter part of the 1990s. Overall, student debt at graduation rose by 69% in real terms between 1982 and 1990, and by 81% in real terms between 1990 and 2001. Trends are roughly similar for masters and PhD level graduates (albeit at slightly higher levels of debt), and for college graduates (albeit at slightly lower levels of debt).

It should, however, be kept in mind that past trends will not necessarily continue into the future. The more recent increases in student grant dollars and reductions in borrowing noted previously suggest that student debt may – for the moment at any rate – have either stopped growing or in fact fallen in the most recent period. Evidence in support of this hypothesis comes from the Canadian Undergraduate Consortium's *Survey of Graduating Students* (Prairie Research Associates 2003). Average debt at graduation across all undergraduate students in 2003 was \$20,074

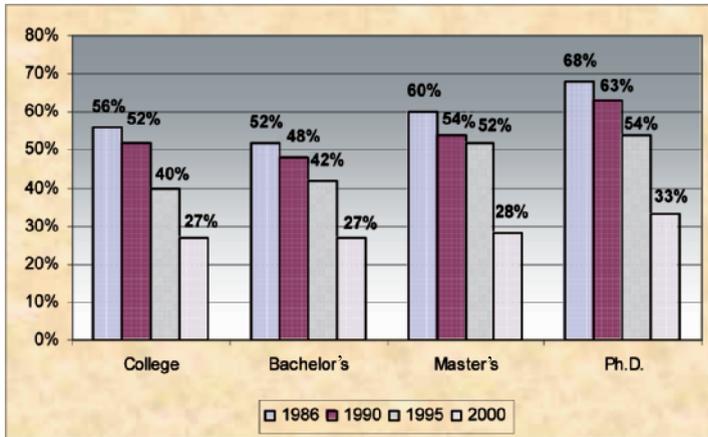
compared to a figure three years earlier of \$20,286 implying a drop in undergraduate debt at graduation of approximately 10% in real terms.



Source: Finnie 2000; Statistics Canada 2000 (custom tabulations); Lang Research forthcoming

Figure 14. Incidence and amount of student debt of bachelors degree graduates from 1982 to 2003 (in \$2003)<sup>9</sup>

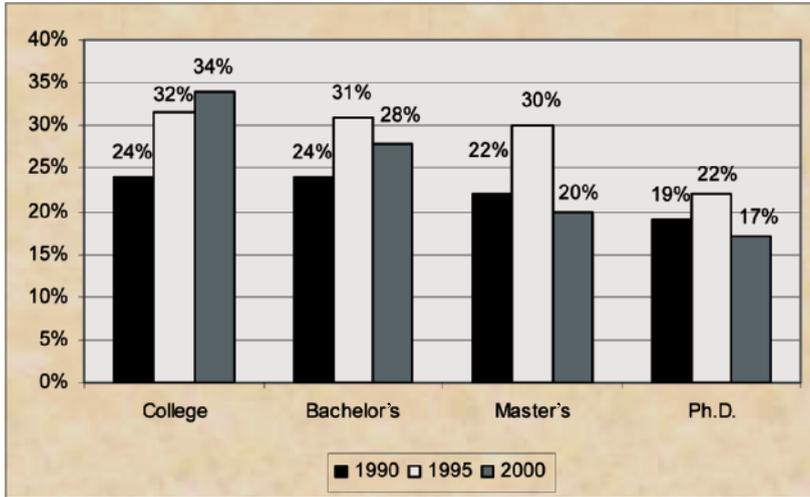
As for postgraduation debt burden, the percentage of total debt repaid within two years of graduation declined as overall debt rose (figure 15). In general, the proportion of total loans repaid within two years among 2000 graduates was less than half what it was for the 1986 cohort.



Source: Allan and Vaillancourt 2004; Finnie 2000

Figure 15. Percentage of debt repaid by degree level and cohort

However, a number of factors have mitigated the burden of student loans over the past 20 years. There has been a steady decline in interest rates, and major improvements made to interest and debt relief measures in the Canada Student Loans Program. Thus, despite the increases in borrowing levels, the percentage of students who say they have had repayment problems has stayed relatively constant – up slightly among college students and down slightly among university students (figure 16).



Source: Allan and Vaillancourt 2004; Finnie 2000

Figure 16. Percentage of graduates reporting difficulties in repayment, by degree cohort

#### 4.3.4. Has Debt Aversion Become a Problem?

Student borrowing has thus risen, but student debt *problems* appear to have remained more stable. Given these changes, what is the current state of ‘debt aversion’? And, more importantly, is it getting in the way of students going on to postsecondary studies? Finnie and Laporte (2004), using data from the relatively recent PEPS (see above), have reported that among youth who did not go on to postsecondary studies, only 6.6% (about 2% of all survey respondents) said they did not go because they were not willing to take out a student loan. This suggests that debt aversion only rarely inhibits individuals from participating in the postsecondary education system. Further examination of the PEPS data reveals that this group is divided more or less evenly between those who refuse on principle to borrow anything for their education and those who are simply concerned that they would have to borrow too much. Debt aversion is thus to a considerable extent a ‘first dollar’ problem and cannot be eliminated without switching to an entirely grant-based system of student assistance.

#### 4.4. *Summary on Enrolments, Participation and Access*

At the end of a little more than a decade of somewhat haphazard policy experimentation, we can make the following observations about the Canadian case. As tuition fees rose significantly through the 1990s, total enrolment rose at the beginning of the decade, then declined slowly to 2001, after which it began increasing rather sharply. Participation rates followed a similar path, except they were flatter (rather than declining) in the latter part of the 1990s. Admissions standards at the university level, in particular, appear to have risen, perhaps pointing to a greater 'rationing' of places and increased selectivity among a greater number of potential students. Despite the substantial – and rising – differences in tuition rates across provinces, inter-provincial mobility to go to school remains fairly limited, and does not appear to have changed in extent or direction. Despite all the changes in funding, fees and student aid, the social composition of the student body does not appear to have changed very much – and may even have come to include relatively more students from lower income families, but the evidence is less certain in this regard. Student debt at graduation increased substantially, although then perhaps subsided (in real terms) after 2000, but excessive debt burdens and debt problems appear to remain relatively scarce, and debt aversion is rarely a (direct) barrier to postsecondary education.

### 5. A MODEL OF THE POSTSECONDARY SYSTEM: CAPACITY AND ACCESS<sup>10</sup>

In this section we develop a simple model that we believe is useful for understanding the principal characteristics of the Canadian postsecondary education system and how it has changed over the last decade and a half, especially for how it helps frame some of the key policy issues relating to cost-sharing and access – the number of students who participate in the system and their characteristics with respect to ability to pay, scholastic performance and other related factors, including those related to family background. The model might also be usefully applied in other countries.

#### 5.1. *A Simple Model of Capacity and Student Participation*

We define *the demand for postsecondary education* to be the number of individuals who i) would like to go to school; and ii) have the ability to pay for the schooling. One important determinant of demand is price, which may be thought of as the tuition fees which must be paid. At higher tuition levels, fewer individuals i) find it worthwhile to pursue higher studies; and/or ii) can afford it, and vice versa at lower tuition levels.

This price-demand relationship leads to the classic 'demand curve' concept, used by economists, which reflects the relationship between price and the quantity demanded – in this case between tuition levels and the number of places sought at colleges and universities. The demand curve for postsecondary education – like

virtually all demand curves – would be expected to be negatively sloped for the reasons just described.

Given this general downward natural shape of the price-demand relationship, its particular position and shape will be determined by various other underlying factors, including the level of student financial assistance available – a key element of our discussions in this chapter. Demand is also affected, however, by the extent to which the schooling improves individuals' employment opportunities, earnings levels or other job-related outcomes; by other factors which affect their ability to pay (e.g. family incomes); by students' preparation for, preferences regarding, and perceptions of, college and university training (which might be related to family background); and by other factors.

The other key element of this framework is the *supply*, or *capacity* of the system, which can be thought of as the number of students for whom there are places. Supply will, like demand, be related to price, which can again be thought of in terms of the tuition fees charged (assuming for the moment that institutions actually keep the revenue thus raised – as is typically the case to a greater or lesser degree in Canada). The postsecondary system in Canada may thus be generally considered to have a classic upwards-sloping supply curve, indicating that as the price/tuition rises (and institutions are permitted to keep those increased fees), more places will be offered, as it becomes worthwhile (and feasible) for institutions to open their doors to greater numbers of students.

As with the demand curve, the precise position and shape of the supply curve will depend on a variety of other underlying factors. These include, most importantly, government grants to institutions and associated education ministry directives regarding enrolment. Other sources of revenue to institutions, including those related to research, will also affect the overall supply of places.

Demand and supply can now be put together to posit a typical *postsecondary equilibrium*. Figure 17 shows the sort of upward sloping supply curve and downward sloping demand curve just discussed. It also shows tuition levels being exogenously given to the 'system', as represented by the horizontal line at P (for price), corresponding to the standard situation in Canada where tuition fees are set by provincial education ministries based on considerations of affordability, the need to raise revenue and other factors, rather than by free market forces (i.e. charging the highest price possible given the demand faced and the underlying supply curve).

The number of places supplied by the system is represented by the point where the price intersects the supply curve, or  $N_S$ . The number of places demanded is represented by the point where the price intersects the demand curve, or  $N_D$ . As drawn, the figure shows the typical situation in Canada – as is the case elsewhere – where demand is greater than supply ( $N_D > N_S$ ) at given tuition levels, and there are more individuals who would like to go to college or university (i.e. applicants and potential applicants) than for whom there are places. In standard economics jargon, there exists a situation of 'excess demand', and the system is 'supply-constrained'. The available places are then generally rationed by entry requirements or 'ability'.

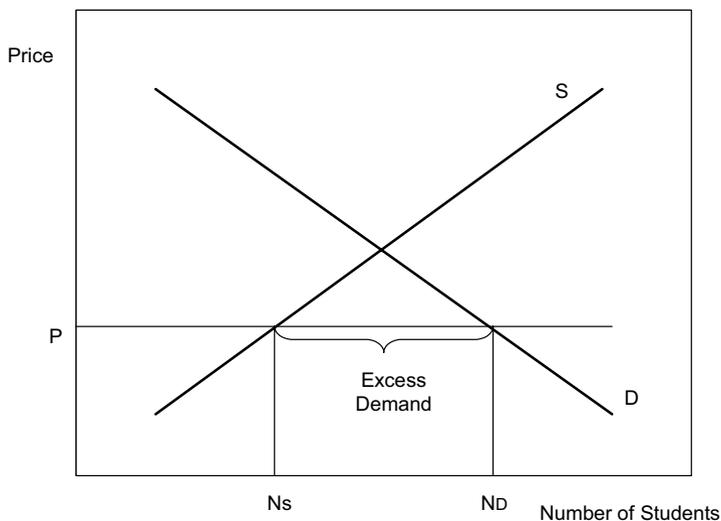


Figure 17. Supply and demand for postsecondary education

One distinguishing feature of this system is that a change in any factor that affects demand – including student financial aid – will not generally lead to a change in overall enrolment, precisely because the system is supply/capacity-constrained. Such a change will, however, affect the amount of excess demand, and hence entry criteria, as more or fewer applicants (and potential applicants) are rationed into an unchanged number of places. The composition of the student body will also change. For example, an increase in student aid for a certain group will cause an increase in demand among the targeted individuals, and some of these will gain places in the system and crowd out others who would otherwise have been admitted, as entry criteria rise as a result of the increased competition for the number of places available.

#### 5.1.1. Recent Canadian Developments in the Model Framework

Although there have been many specific developments in the Canadian postsecondary education system, and most of these have varied across provinces to at least some degree, there have been a number of important general developments since 1990. These have been discussed above, and we will now place them in the context of the analytical model just sketched out.

First, tuition rates increased substantially, which – for the reasons just explained – would be expected to affect both the supply of, and demand for, postsecondary education. Second, there have been major changes in the student financial aid system, some affected individuals from lower income families (e.g. loan limits were increased and then held stagnant), debt remission was introduced and certain grants were expanded while others were contracted. Other changes in aid were directed

towards the more general population, although they were typically taken greater advantage of by individuals from higher income families (e.g. savings grants and tax credits). In terms of underlying demographic forces, the size of the postsecondary-aged population first shrank and then began to grow again. Finally, it is generally believed that returns to postsecondary education rose, which would generally shift demand outward for all.

On the supply side, the most important trend was the significant cuts in block transfers to institutions, followed by recovery after about 2000, although that improvement is open to different interpretations when we take into account the proportion targeted on research as opposed to the teaching function and the (recently) increased numbers of students over which these resources have been spread.

In terms of the changes in the outcomes we have seen, enrolments were largely stagnant through the 1990s, then rose significantly after that, and there was a similar pattern in participation rates, while the available data indicate that entry criteria appear to have risen. While the empirical record is somewhat mixed and anything but definitive, participation rates may have increased more for those from lower income families than for those from higher income families.

Using the analytical framework developed above, it may be hypothesised that the Canadian university system has evolved in the manner broadly sketched out in figure 18. The tuition increases are represented in the change from  $P_0$  to  $P_1$ , which on their own would cause movements along the supply and demand curves (in opposing directions). The rise in the returns to postsecondary education and other underlying demand-side factors, including those related to the student financial aid system, can be thought to have resulted in an outward shift in the demand curve from  $D_0$  to  $D_1$ . The declines in block transfers to universities are represented by the leftward shift left of the supply curve.

These conjectures are consistent with what has been observed, as described in this section and earlier in the chapter. The lack of much change in enrolments, at least until 2000, may be seen in the steady  $N_S$  (or total enrolments), shown here as the product of a more or less perfect offsetting of the effects of the tuition increases, which should have caused a movement (i.e. increases) along any given supply curve, and the inward shift in the supply curve caused by the reductions in block grants. Our speculation about the outward shift in demand is supported by the observed increases in selection criteria – which our model predicts would occur as demand-side pressures increased for the given number of places available. The changes in the composition of the student body towards (possibly) including relatively more individuals from lower income families (although also relatively more from higher *education* families) tells us further about the specific groups for which demand increased more.

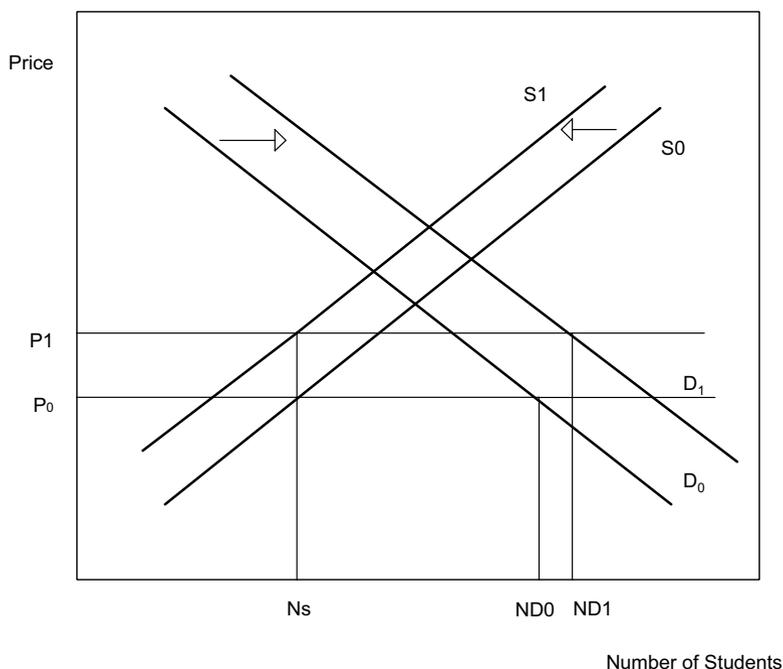


Figure 18. Recent developments in Canada

This may or may not be exactly what happened, but the model at least provides a useful framework for putting together, checking for internal consistency, and interpreting, the various changes that have occurred in the Canadian postsecondary education system since 1990 – as well as pointing to where further research might be carried out. It is but a framework, but perhaps a useful one for helping us to understand what has occurred when it is fleshed out with data, whether we appeal to simple trend figures (e.g. enrolments) or more sophisticated econometric analyses (e.g. how enrolment patterns have changed by family characteristics) to do so.

The framework – and accompanying analyses – could thus be useful for analysing overall trends in the ‘national’ Canadian system, for studying some of the more specific tendencies across provinces and for identifying the potential effects of different policy changes (tuition rates, block transfers, student financial aid) on various outcomes of interest (total enrolments, composition of the student population by family background or ‘ability’). We suspect that the framework might be similarly useful in other national settings.

## 6. CONCLUSION

The perhaps unintended ‘Canadian experiment’ in postsecondary education has been an interesting one. There have been substantial cuts and then some recovery in the

block grant funding of the system; myriad shifts in student aid, including changes in the total amount, and specific composition of need-based and non-need-based aid; generally more than a doubling of tuition levels; etc. Furthermore, these changes have come to different degrees, in different ways, and at different times across the nation's provinces, which essentially run 'the system(s)', with the federal level of government and its provincial counterparts sometimes following very different policy paths. All these amount to a kind of set of 'natural experiments' that might provide not only important movements over time, but also abundant cross-jurisdictional variation which could provide evidence on many of the effects of the changes just listed (as well as others). And any information thus gained could, ideally, have relevance for other countries.

In this chapter we have taken only a first step in such a general analysis. We have described in broad terms the policy changes that have occurred and have begun to relate these to the relevant outcomes. We have thus attempted to provide an overall sketch of the major changes that have taken place in Canada – and by doing so provide a starting point for more specific analyses that might probe any number of the specific changes that have occurred. In doing so, we hope there are useful lessons for other countries in terms of both the broad-level description and beginning of an 'analysis' presented here, and for the framework we provide for investigations that might be carried out elsewhere.

#### NOTES

- 1 These transfers have variously been called the 'Established Programs Financing' (between 1976 and 1995 for health care and postsecondary education), the 'Canada Health and Social Transfer' (between 1995 and 2002 for health care, postsecondary education and social assistance) and the 'Canada Social Transfer' (2002 to the present for postsecondary education and social assistance).
- 2 Much of the data contained in this section is based on Junor and Usher (2004).
- 3 For an excellent journalistic summary of the period in question, see Greenspon and Wilson Smith (1996). For a more prosaic description of changes in government finances, see Department of Finance (2001).
- 4 Historically, all provinces except Quebec imposed their own income taxes as a simple set of rates of federal taxes, and thus implicitly used the same tax credits (Quebec has its own income tax system). In more recent years, however, some provinces have moved away from this approach, which is one reason federal and provincial spending on education-based tax credits has diverged somewhat of late (see below).
- 5 See Finnie, Schwartz and Lascelles (2003) for a full account of student financial aid spending at both federal and provincial levels.
- 6 The average includes virtually all institutions in the country with the exception of the Université du Québec system, which does not participate in the *Maclean's* exercise.
- 7 The most recent figures on inter-provincial student mobility may be found in Junor and Usher (2004).
- 8 The results could, for example, stem at least partially from postsecondary participants from lower income families being increasingly included in the samples from which participation rates are calculated because there are more of them 'at home' rather than going away to school (and thus not included) – perhaps precisely because they have been priced out of going to out-of-town institutions. Other such dynamics would similarly affect the calculations. While Corak, Lipps and Zhao (2003) are careful to check for the potential importance of such biases, the (only) 60–70% sample capture rate means that their results should be interpreted in a speculative manner.
- 9 Data for 1982–2000 come from Statistics Canada and refer only to debt from public, government sources. The data for 2003 come from a meta-analysis of institutional graduate surveys and include both public and private debt. 2003 figures for both amount and incidence of debt are thus somewhat

higher than they would be if only public debt were included – unfortunately, the meta-survey methodology makes it impossible to distinguish between the two types of debt.

10 A fuller presentation of the material covered here is contained in Finnie (2004).

## REFERENCES

- Allan, M. and C. Vaillancourt. *Class of 2000: Profile of Postsecondary Graduates and Student Debt*. Ottawa, Ontario: Statistics Canada, 2004.
- Corak, M., G. Lipps and J. Zhao. *Family Income and Participation in Post-Secondary Education*. Ottawa, Ontario: Statistics Canada, 2003.
- Department of Finance. *Canada's Fiscal Progress Through 2000–01*. Ottawa, Ontario: Government of Canada, 2001, <http://www.fin.gc.ca/budget01/booklets/bkfise.htm>.
- EPI (Educational Policy Institute). "Federal Budget Review." *EPI Centre* 1.1 (2004): 1–5. <http://www.educationalpolicy.org/pdf/EPICentre%20Spring%202004.pdf>.
- Finnie, Ross. *Student Loans: Borrowing, Burden and Repayment*. Ottawa, Ontario: Statistics Canada, 2000.
- Finnie, Ross. "A Simple Model of Access and Capacity for Post-Secondary Schooling in Canada." School of Policy Studies Research Paper. Kingston, Ontario: Queen's University 2004.
- Finnie, Ross and Christine Laporte. "Student Loans and Access to Post-Secondary Education." Statistics Canada Research Paper. Ottawa, Ontario: Statistics Canada, 2004.
- Finnie, Ross, Saul Schwartz and Eric Lascelles. "Smart Money? Government Spending on Student Financial Aid in Canada." In Doern, Bruce (ed.). *How Ottawa Spends 2003–2004: Regime Change and Policy Shift*, Oxford: Oxford University Press, 2003, 155–171.
- Finnie, Ross, Alex Usher and Hans Vossensteyn. *Meeting the Need: A New Architecture for Student Financial Assistance in Canada*. Montreal: Institute for Research on Public Policy, 2004.
- Foley, K. "Why Stop After High School? A Descriptive Analysis of the Most Important Reasons that High School Graduates do not Continue to PSE." Montreal: Canada Millennium Scholarship Foundation.
- Greenspon, E. and A. Wilson Smith. *Double Vision: The Inside Story of the Liberals in Power*. Toronto: Doubleday, 1996.
- Junor, S. and Alex Usher. *The Price of Knowledge 2004*. Montreal: Canada Millennium Scholarship Foundation, 2004.
- Lang Research. *Meta-Analysis of Post-Secondary Institutional Graduate Surveys 2004*. Montreal: Canada Millennium Scholarship Foundation, forthcoming.
- Prairie Research Associates. *Survey of Graduating Students: Master Report*. Winnipeg: Canadian Undergraduate Survey Consortium, 2003.
- Queen's University Institute of Intergovernmental Relations. *The Canada Millennium Scholarship Foundation: Evaluation of the Foundation's Performance 1998–2002*. Montreal: Canada Millennium Scholarship Foundation, 2003.
- Robertson, Todd. "Changing Patterns of University Finance." *Educational Quarterly Review* 9.2 (2003): 9–17.
- Statistics Canada. *National Graduates' Survey*. Ottawa: Statistics Canada, 2000.
- UNESCO Institute for Statistics. *Global Education Digest 2004: Comparing Education Statistics Across the World*. Montreal: UNESCO, 2004.
- Zhao, John and Patrice de Broucker. "Participation in Post Secondary Education and Family Income." *The Daily*, Cat. No. 11-011-E, Ottawa: Statistics Canada, 9 January 2002.

MAUREEN WOODHALL AND KEN RICHARDS

## STUDENT AND UNIVERSITY FUNDING IN DEVOLVED GOVERNMENTS IN THE UNITED KINGDOM

### 1. INTRODUCTION

Higher education funding in the United Kingdom has changed frequently and dramatically in recent decades, and the Higher Education Act, passed in July 2004, means further major change, with the introduction of variable (generally described as ‘top-up’) fees for undergraduate degrees in English universities from 2006–07, and devolution of responsibility for tuition fees in Welsh universities to the National Assembly for Wales (NAW). University funding and student support have become a political battlefield in the UK, and fierce debates took place in 2004, not only in both Houses of Parliament in London, but in Scotland and Wales, where devolution of power following the establishment of the Scottish Parliament and the NAW in 1999 has had a strong impact on higher education finance. Unlike other federal countries discussed in this volume, such as Canada and the USA, the UK had, until recently, a common policy for university funding and student support, with broadly similar systems in England, Scotland, Wales and Northern Ireland, despite other differences such as four-year degree courses in Scotland and some bilingual provision in Wales, but since devolution in 1999 significant differences have emerged. These are likely to continue as the devolved governments develop their own funding policies to reflect national priorities. The Welsh Assembly Government (WAG) pledged in 2003 that variable fees will not be introduced in Wales during the life of this Assembly, which means that they cannot be introduced before 2007–08 at the earliest. In 2006–07 Welsh universities will continue to charge a fixed fee of about £1200, while English universities may, subject to approval by the newly established Office for Fair Access (OFFA), charge fees of up to £3000 per annum. There is now fierce controversy about future policy on tuition fees and student support in Wales.

This chapter explains the historical background to current debates on higher education finance in the UK, the evolution, over the past five years, of separate policies for student support and university funding in the four countries of the United Kingdom and examines consequences – both intended and unintended – that have occurred or could occur in future. The main focus will be on differences between Wales and England, although we also discuss changes introduced in Scotland after devolution and summarise proposed changes in Northern Ireland. We also discuss implications of the introduction of variable fees in English universities

from 2006–07, and describe how the question of whether to introduce variable fees in Wales from 2007–08 is currently being debated.

The authors were members of the Independent Investigation Group on Student Hardship and Funding in Wales (IIGSHFW), set up in 2000 by the Welsh Minister for Education and Lifelong Learning, which reported in 2001. They were also members of a review panel set up in July 2004 to conduct an independent study and advise the Minister on future policy on student support and tuition fees in Wales. This chapter describes the work of this panel (referred to as the Rees II Review since it is chaired, like the IIGSHFW, by Professor Teresa Rees). The chapter was completed before the report was published in May 2005 (Rees Review 2005). The chapter makes no attempt to predict its recommendations but describes how and why differences have already developed between student support policies in Wales and England and discusses issues and options that must be taken into account in developing future policies in Wales.

## 2. HIGHER EDUCATION FINANCE IN THE UNITED KINGDOM, 1960–99

Higher education in the UK has changed dramatically, from an elite to a mass system. In the early 1960s only about 6 per cent of 18–21 year olds entered university. By 2002 the proportion was about 43 per cent (DfES 2003) and the current government target is for 50 per cent of all young people under 30 in England to participate in higher education by 2010.<sup>1</sup> Successive governments, from the 1970s, have argued that a system of finance designed for under 10 per cent of the higher education age group could not cope with the demands of massive expansion. The number of full-time degree level students in 1960, when the government appointed the Anderson Committee to design a new student support system, was less than 140,000, and the Committee envisaged an eventual expansion to perhaps 175,000 students (DES 1988: 3); in 2002, the number of students in UK higher education was over 1.5 million. The Anderson Committee (1960) recommended that tuition costs should be met entirely from public funds, and students' living costs (maintenance) shared between parents (through a means-tested 'parental contribution') and the taxpayer. A system of mandatory grants covering tuition fees for all full-time UK students and means-tested maintenance grants was introduced in 1962, and remained virtually unchanged until 1988, when the then Conservative government published a White Paper proposing top-up loans for students (DES 1988). Although the system of finance hardly changed between 1962 and 1988 there was a substantial decline, both in the real value of student grants and in the level of funding per student received by universities.

Johnstone (1986: 23) described the British student grant system as "one of the most generous in the Western World". In presenting his model of cost-sharing and comparing student support in France, Germany, Sweden, the UK and the USA, Johnstone (1986: 14) observed that "students in the United Kingdom bear almost no share of costs, neither borrowing nor working". This was in marked contrast to students in Sweden or the USA, where student loans were the main means of student support, but Johnstone questioned the equity of a system in which relatively few UK

students were eligible for grants generously supported by the British taxpayer, while others, including non-traditional students, had very little support.

The White Paper (DES 1988) drew on Johnstone's research, using it to justify a shift in some of the costs of higher education from taxpayers to students through the introduction of loans to 'top-up' maintenance grants. The government argued that: (i) student support entirely through grants was unsustainable, given the rapid expansion of higher education that had already taken place and was expected to continue in the 1990s; (ii) the decline in the real value of grants meant that students needed additional resources to cover their living expenses, but neither parents nor taxpayers should be expected to increase their share of costs; instead 'top-up loans' would provide a new form of student support; and (iii) loans would be more equitable than grants, since graduates enjoy a high private rate of return to higher education and taxpayers, many of whom have incomes well below average graduate earnings, should not have to subsidise both tuition costs and living expenses through grants. The government's proposals provoked fierce opposition, particularly from the National Union of Students, but a system of loans, administered by a newly created Student Loans Company (SLC), was introduced in 1990 and the value of the maintenance grant was frozen, and in subsequent years gradually cut, so that loans accounted for a rising proportion of student support from 1990 to 1997. Students' eligibility for social security payments such as housing benefit and income support during vacations was removed, but a small amount of additional funding was allocated to universities for 'Access Funds' to provide financial support for students facing financial hardship.

Throughout the 1990s the system of mandatory grants for fees and maintenance, combined with student loans, applied throughout the UK. It came under increasing strain, however, as student numbers continued to rise, university funding per student fell, and some students, particularly mature students and those from disadvantaged backgrounds, faced financial hardship, with 'Access Funds' increasingly recognised as insufficient. Part-time students were not eligible for mandatory grants and a system of 'discretionary grants' for these and other non-traditional students was inadequate. The system was also inequitable, since mandatory grants for tuition fees were paid to all full-time students, regardless of family income, and all students, including those from wealthy families, were eligible for loans at zero real interest, while the most disadvantaged students struggled with insufficient funding and rising levels of debt. There were criticisms of the student loan system, which provided 'mortgage type' loans, that had to be repaid in equal instalments within a fixed period, rather than 'income contingent' loans, such as the Higher Education Contribution Scheme (HECS), introduced in Australia in 1989, which requires graduates to pay deferred contributions by means of a fixed proportion of income, albeit a proportion which now rises with income (see Chapman's chapter in this volume for a discussion of the advantages of income contingent loans, which he calls income related loans (IRLs). Critics such as Barr (1989) and Woodhall (1993) argued for reform of the student support system, and university leaders called for reform of university funding, including the introduction of tuition fees to supplement inadequate public funding, which had declined both in real terms as a result of inflation and per student, as a result of expansion in student numbers (see Callender's

chapter in this volume and an illuminating book by Barr and Crawford (2005) for further discussion of student funding policies in the UK from 1990).

The government's response to mounting criticism of student support and university funding in the 1990s was to appoint a National Committee of Inquiry into Higher Education (NCIHE), under Sir Ron Dearing, to provide recommendations on the structure, size and funding of higher education over the next 20 years. The Dearing Committee's report (NCIHE 1997) was wide ranging; it made a strong case for cost-sharing, in the form of a graduate contribution of about 25 per cent of average tuition costs, payable after graduation through an income contingent mechanism similar to HECS in Australia, and it recommended improvements in student support, including more generous provision for part-time students. By the time the NCIHE report appeared however, in July 1997, there had been a change of government.

The new Labour government, elected in 1997, was committed to expanding higher education and widening access, but was also financially constrained by its manifesto commitment to retain the overall spending plans of the previous Conservative government. Although the new government accepted many of the recommendations of the Dearing Committee, particularly on the need for wider cost-sharing, its financial constraints meant that there were important differences between what NCIHE had recommended and what the government proposed. In particular, the government chose to introduce up-front tuition fees of £1000 a year instead of an income contingent contribution, payable after graduation, which would have generated additional funding for higher education much more slowly than up-front fees. To mitigate harmful effects of tuition fees on access the government announced they would be means-tested – students from low or very low income households would pay reduced or even zero fees, depending on the level of family income.<sup>2</sup> At the same time it made important changes to the student support system, including abolition of maintenance grants for students' living expenses, and changes to student loans, which from 1998 provided the only form of student support. The most important change to the student loan system was to abandon the 'mortgage type' system of repayment and introduce income contingent repayment, to be collected through the income tax system, as in Australia. Special provisions were made for students facing severe financial hardship, including 'Hardship Funds', allocated by higher education institutions, 'Hardship Loans', allocated by the SLC and a plethora of small grants or allowances available for special categories of student, such as mature and disabled students. These arrangements applied only to full-time students; those on part-time courses were entitled to very limited support from Hardship Funds.

The system introduced in 1997 provoked strong criticism, on the grounds that imposition of tuition fees would damage access by discouraging students from low income backgrounds, even though students from low income families received tuition fee support to cover part or all their fees. Abolition of maintenance grants was particularly unpopular, both with students and parents, and critics pointed to rising levels of student debt, financial hardship and a bewildering complexity of student support arrangements which meant that students at different institutions were often treated quite differently, and many did not understand their entitlements.

University leaders, meanwhile, argued that the introduction of tuition fees of £1000 a year was inadequate to overcome years of declining public funding. Between 1983 and 2003 public funding per student declined by 37% while student numbers increased by 95%. University funding and student support became highly controversial issues, with all political parties proclaiming different approaches to financing expansion of higher education and increasing access for disadvantaged students, in the face of severe public expenditure constraints.

Against this background, following legislation in 1998, the newly devolved governments in Scotland and Wales began to exercise their powers. One of the first topics chosen by both devolved governments for new policies to respond to particular needs of the Scottish and Welsh communities was higher education finance and student support. There were significant differences in the approach taken by the two governments, reflecting differences in the powers granted to the two assemblies. The NAW, unlike the Scottish Parliament, cannot introduce primary legislation. The next two sections look separately at the policies developed in Scotland and Wales, following devolution.

### 3. REFORM OF HIGHER EDUCATION FINANCE IN SCOTLAND, 2001

One of the first decisions of the new Scottish Parliament in 1999 was to set up an Independent Committee of Inquiry into Student Finance under Mr Andrew Cubie. Tuition fees were a high profile issue in the first election campaign for the Scottish Parliament, and a crucial element in the agreement, following the election, between the Labour and Liberal Democrat parties to form a coalition executive. The Cubie Committee (2000) established a set of guiding principles: “Student support should: (i) maximise opportunity for all to achieve lifelong learning of the highest quality and standards; (ii) promote social inclusion, the knowledge economy and enhanced civil society; and (iii) be clear, simple, comprehensive, flexible, fair and easily administered”. In addition, the Committee’s recommendations should be based on wide consultation and careful analysis of evidence. The Committee reported overwhelming support for the re-introduction of maintenance grants for students from low income families; this issue was more frequently mentioned than the issue of tuition fees. On fees, there was a wide division between those who argued for abolition as a matter of principle – the principle of free higher education – and those who recognised that since graduates benefit from higher earnings (described in the report as a ‘graduate premium’) they should contribute to the costs of tuition. There was also considerable concern, particularly from students and their parents, about the burden of debt generated by the new system introduced in 1998.

The Cubie Committee’s report (2000) had 52 recommendations, including abolition of up-front tuition fees, to be replaced by compulsory contributions to a Scottish Graduate Endowment, payable after graduation and collected through the tax system on an income contingent basis. It also recommended non-repayable means-tested bursaries for students from low income families. So that abolition of fees should not lead to reductions in funding for Scottish universities, the Committee recommended that the Scottish Executive should make up the shortfall (which it

estimated at about £12 million). The Cubie report, entitled *Student Finance: Fairness for the Future*, argued that to abolish 'up-front' tuition fees, replace them by an income contingent contribution paid after graduation, and reintroduce means-tested support for living expenses, would be fairer and do more to promote access to higher education in Scotland than the existing system introduced by the UK government in Westminster. The new scheme, introduced in Scotland from 2001–02, requires most graduates, with some exceptions,<sup>3</sup> to pay a flat-rate Graduate Endowment contribution of £2000 on graduation (the sum of £2000 is index-linked; for courses starting in 2004–05 the required contribution is £2154). Graduates can either pay the contribution immediately on graduation, out of their own or their parents' pockets, or access a loan for the full amount, which is added to other student loans incurred while they were studying, and must be repaid once their earnings exceed £10,000 (recently raised to £15,000).

The decision to abolish tuition fees in Scottish universities created a number of anomalies between funding and student support systems in different parts of the UK. When fees were first introduced in the UK in 1998 there was concern that an honours degree typically requires four years at Scottish universities compared to three years elsewhere in the UK. A review of Scottish universities in 2000 recommended a fee concession for the final year of study for students domiciled in other parts of the UK, with the costs met by the Scottish Executive. This was accepted by the Scottish Executive, and a representative explained to the UK Parliament's Select Committee on Education and Employment (2001: online):

We do not want to create any barrier ... we have to pay quite significantly for an element of funding of English and Welsh students coming to Scotland, but we welcome that and we will continue to incur those costs.

Abolition of tuition fees in Scotland created other anomalies. First, the abolition of 'up-front' fees applied only to Scottish-domiciled students and those from EU countries, but not to English, Welsh or Northern Irish students. Thus a student living in Ulster and studying in Edinburgh would, as a UK resident, pay tuition fees, while another living a few miles over the border in Eire, a member of the EU, would not. Secondly, the new system of means-tested bursaries applied only to Scottish-domiciled students studying in Scotland, on the grounds that European Law did not permit Scottish-domiciled students studying in England to be treated more favourably than other EU students. The new bursaries were therefore limited to Scottish-domiciled students at Scottish universities; English, Welsh or Northern Irish students in Scotland, and Scottish students in England or Wales were not eligible. There have subsequently been changes in these provisions, and Scottish-domiciled students studying outside Scotland can now receive means-tested bursaries, but at a lower rate than bursaries available for students studying in Scotland.

Richards (2002) analysed the impact of the reforms in Scotland in terms of the effects on students with different levels of family income, which showed that when the various elements of the Scottish Reform package are analysed separately the abolition of tuition fees makes students from poorer backgrounds worse off, and those from wealthier backgrounds better off, since previously fees were means-

tested, but now most students (apart from particular categories who are exempt) must pay a contribution of £2000 on graduation. When all elements of the package are considered as a whole, including means-tested bursaries, students from poor backgrounds are generally better off, and those from richer families worse off, even though some students considered poor enough to qualify for grant aid under the bursary scheme were slightly worse off in total. There was much emphasis on the fairness of the Cubie proposals, but little recognition that because the changes were designed to be broadly neutral in fiscal terms the ‘reform’ of abolishing fees created both winners and losers, and actually shifted more of the costs to certain categories of student – hardly the blow for social justice which the politicians claimed at the time.

The Scottish policy changes aroused considerable interest elsewhere in the UK, where tuition fees were still in place and students were not entitled to means-tested bursaries. Rather surprisingly, Baroness Blackstone, then Minister of State for Education in the UK Parliament, told the Select Committee on Education and Employment that she did not think the Cubie report and the subsequent proposals from the Scottish Executive on student finance had many implications for the rest of the UK. This turned out to be a poor prediction. The change of policy in Scotland certainly had implications for Wales, and subsequently for England also.

#### 4. REFORM OF STUDENT SUPPORT IN WALES, 2003

The first strategic plan of the National Assembly for Wales, *Better Wales* (NAW 2000: 24), stated that “learning – for both children and adults – is at the top of the Assembly’s agenda. We want Wales to be recognised as a Learning Country”. In December 2000, just a year after the Cubie report was published, the Minister for Education and Lifelong Learning appointed an Independent Investigation Group on Student Hardship and Funding in Wales (IGSHFW), under Professor Teresa Rees. The Welsh Assembly did not have the same level of powers as the Scottish Parliament, and could not legislate to abolish tuition fees in Wales. Nevertheless, Rees (2002: 10) emphasised in an article describing the work of the IGSHFW, that she was advised not to feel constrained by this in making recommendations: “What was wanted was a package of measures to deliver the learning country”.

The Group’s report (IGSHFW 2001) was based, like the Cubie report, on wide consultation, including letters to about 1500 organisations and individuals, nine public hearings, and research evidence, including a review of existing research (Stroud 2001), a special analysis of data from the 1998–99 UK Student Income and Expenditure Survey (Callender and Kemp 2001) and a statistical analysis of trends in higher education participation in Wales (Gorard and Taylor 2001). Rees (2002: 12) commented:

It is clear that this was a topic about which people felt extremely strongly ... As a consequence of the nature, volume and quality of the evidence and research findings and the use we made of them, the work of the Investigation Group became what we had hoped for it. That was, an exercise in evidence-based policy development, framed by principles focused on equality, inclusion and the development of skills for the Welsh economy.

Debates during the public hearings and throughout the work of the IIGSHFW revealed common misconceptions about tuition fees and student support. Many people thought that all students had to pay tuition fees and repay any borrowing irrespective of their families' income or their own subsequent income. The concepts of means-tested fees and income contingent loan repayments were not properly understood. People argued strongly against tuition fees: that they breached the principle of 'free' education, that there is a crucial distinction between the costs of living (to which students and parents should contribute) and the costs of learning (which should be publicly subsidised), and since students/graduates benefit from higher lifetime income, rather than their parents, there is no justification for requiring parents to pay tuition fees. These arguments were based on questionable logic. Even before tuition fees were levied and when students received grants, higher education was not 'free': the cost to the student was the opportunity cost of lost earnings while studying (usually significantly higher than the maintenance grant), so no principle had been breached. Some felt that it was appropriate for parents to pay for maintenance but not for fees. Given that payments for both fees and maintenance are likely to come from the same parental pocket, this distinction may well escape most parents. Indeed, the idea that parents should not have to pay tuition fees because it is students who ultimately benefit from higher education takes a very narrow view of benefit and ignores the idea of family responsibility for some cost-sharing which is assumed in many other countries (see Johnstone's chapter in this volume). Nevertheless opposition to tuition fees, even if parents are willing and can afford to pay them, was so strong that after considerable discussion in the Group the majority view was that tuition fees should be abolished.

The investigation revealed widespread confusion on the part of learners about eligibility for support under access and hardship funds, since rules governing eligibility were complex, changed from year to year and were administratively burdensome. Rees (2002: 13) summarised the findings of the Group:

In short, the current system, devised by Whitehall, is a mess. It puts potential learners off, as they cannot be sure they can afford it. It renders some ... who do go into further or higher education at risk of poverty ... Graduates are in the process of accumulating considerable debts, on average £12,500. This may deter them from acquiring further qualifications – and further debts. There is, therefore, a fundamental mismatch between the vision of Wales as a 'learning country' ... and the reality.

The report of the IIGSHFW (2001) made 54 recommendations. Some were addressed to the NAW, including: (i) a considerable increase in resources for student support; (ii) introduction of means-tested bursaries for Welsh-domiciled students in both higher and further education; and (iii) the creation of Financial Contingency Funds to act as a 'safety net' for all learners at Welsh institutions – including those domiciled in England or other parts of the UK. Others were addressed to the UK government in Westminster, since they concerned matters beyond the powers of the NAW. In particular, the IIGSHFW (2001: 28) recommended that "the National Assembly, using all means at its disposal, uses its best endeavours to persuade the UK Government that up-front tuition fees in higher education should be abolished and replaced by an end-loaded, income-contingent Graduate Endowment Contribution". The report argued that this would be a fairer and more efficient means of

cost-sharing than tuition fees, since it involves the beneficiary contributing, rather than a third party such as a parent; it ensures that only those who benefit in the form of higher earnings will actually be required to pay; and it avoids the use of the term 'tuition fee' which is perceived as a deterrent by some learners or their families.

Many of the recommendations were adopted by the Assembly. There was a significant increase in funding allocated for student support and in October 2002 the NAW introduced Assembly Learning Grants for low income students domiciled in Wales – including those studying in English, Scottish or Northern Irish, as well as Welsh, institutions.<sup>4</sup> Financial Contingency Funds were established for students in both higher and further education institutions in Wales. Commenting on these reforms, Rees (2002: 15) both welcomed the Assembly's response and challenged the UK government:

This means that many learners in Wales will now be better resourced and better informed about their level of support than those in the rest of the UK. It means that Wales will be on track to become a learning country. However, in higher education, the UK itself is a learning market – there are considerable cross-border flows. Improvements in one country can cause repercussions elsewhere. Now that Scotland, Northern Ireland and Wales have developed their own solutions to problems of student hardship and funding, the ball is firmly in the court of DfES to address the problems in England, and those of the UK for which only a UK solution can be found.

There were interesting similarities between the Cubie Committee and the IIGSHFW, both in terms of approach and recommendations, particularly on the need for means-tested grants and the advantages of income contingent contributions to a Graduate Endowment Fund, compared with up-front fees. Both relied on extensive public consultations to collect evidence and both adopted guiding principles which emphasised the importance of social inclusion, the knowledge economy and enhanced civil society, and the need for a system of student support to be clear, consistent, fair, easily administered and adequately resourced.

By mid-2001, after the devolved governments of Scotland and Wales had reviewed the system of higher education funding and student support introduced in 1998, it had become increasingly clear that the UK system failed to meet these criteria. The Scottish Executive and the NAW had by then introduced or proposed changes in student support and higher education finance, and the Northern Ireland Assembly Committee on Education and Training had also re-introduced means-tested maintenance grants for Northern Irish students. England, however, still provided no grants, even for the most disadvantaged students, and tuition fees were a cause of severe discontent among students and parents. During the general election campaign in 2001 tuition fees and student support emerged as major political issues, and both the Liberal Democrat and Conservative parties promised to abolish tuition fees if elected. After the election there was growing disquiet about student finance and late in 2001 the Minister of Education in the UK government in Westminster announced a review of student support arrangements in the UK as a whole, although it seemed likely that this would focus particularly on England, since Scotland, Wales and Northern Ireland had recently carried out their own reviews. A vigorous debate ensued, involving higher education organisations, the media and all political parties. In terms of the four phases described by Ziegele in this volume on the tuition fee

debate in Germany, the UK debate included plenty of dogmatic discussion and irritating facts, but there were also many attempts to use research on higher education to illuminate the debate.

As a contribution to the debate *The Welsh Journal of Education* published a special international issue edited by Woodhall (2002). This included a summary of the work of the IIGSHFW (Rees 2002) and an analysis of the impact of the Cubie reforms in Scotland, with proposals for reform of the UK system of student support (Richards 2002). International perspectives were provided by reviews of worldwide experience with cost-sharing (Johnstone 2002), alternative objectives of student loan schemes (Ziderman 2002) and experience with HECS in Australia (Chapman and Ryan 2002).

The review of student support took longer than originally envisaged, as it grew into a more far-reaching and strategic review of higher education in the UK, including not only higher education finance (university funding as well as student support), but also quality of teaching and learning, research, relations between higher education and business, and issues of equity and fair access. The outcome was a government White Paper, *The Future of Higher Education* (DfES 2003), which proposed a number of reforms of higher education finance.

#### 5. THE HIGHER EDUCATION ACT 2004

The White Paper provoked huge controversy and the Higher Education Bill embodying these proposals was debated in both Houses of Parliament between January and June 2004, with various amendments passed. The political outcome was eventually achieved and the Higher Education Act became law on 1 July.

The Higher Education Act 2004 includes provisions unrelated to higher education finance, including the creation of a new research council for arts and humanities and changes in the system of reviewing student complaints and staff disputes. This section concentrates on provisions relating to finance, particularly tuition fees and student support. The changes apply mainly to England, although certain provisions such as those relating to the sharing of information between student support authorities relate to all parts of the UK. The Act gives legislative authority to the reforms set out in the government's White Paper (DfES 2003) and to the devolution of the tuition fee regime and student support arrangements in Wales to the NAW. This puts the Welsh Assembly on the same statutory basis as the devolved administrations in Scotland and Northern Ireland.

The Act abolishes 'up-front' tuition fees for home and EU students (currently £1150 a year) from 2006–07 and permits higher education institutions in England to charge variable fees, up to a maximum of £3000 a year, payable after graduation, through the income tax system on an income contingent basis, provided the higher education institution has a plan to promote access and equality of opportunity which has been approved by a newly created Office for Fair Access to Higher Education (informally known as the Office for Fair Access (OFFA) and even more informally referred to by the media as OFFTOFF). Fees will be 'capped' at £3000 (in real terms) until 2010, and thereafter can be increased only after a debate and vote in

both Houses of Parliament. In Wales the National Assembly now has the authority to determine policy on fees, including deciding whether to permit Welsh higher education institutions to charge variable fees of up to £3000 a year and, if so, it must designate a body to approve and monitor the plans of higher education institutions. Interestingly, the Act requires English higher education institutions to submit plans relating only to promotion of access and equality of opportunity, but in Wales the plans must relate to promotion of equality of opportunity *and/or* the promotion of higher education.<sup>5</sup> It is not yet clear what will be the significance of this distinction, if any, but the Welsh Assembly Government (WAG) has already announced that the body designated to approve the plans of higher education institutions will be the Higher Education Funding Council for Wales (HEFCW).

In addition, the government announced various changes in student support for students in England, including: (i) a new means-tested grant of up to £2700, targeted on low income students; (ii) maintenance loans will be increased, so as to cover average basic living costs; (iii) the income threshold at which graduates must start to repay loans and deferred fees will be raised from £10,000 to £15,000; and (iv) outstanding debts will be written off after 25 years for all students entering higher education in 2006–07. The new arrangements will start in 2006–07, the first year when universities can charge variable fees, and will apply only to new students, not to those already in the system. Students who qualify for university in 2005 and defer entry to 2006 (known in the UK as taking a ‘gap year’), will not have to pay variable fees (a concession following an amendment to the Higher Education Bill passed by the House of Lords). (See Callender’s chapter in this volume and Barr and Crawford (2005) for further discussion of the 2004 Act.)

The Secretary of State, Charles Clarke, welcomed the passing of the Higher Education Act in a Press Release of 1 July 2004:

We have had a constructive dialogue throughout the passage of the Bill and I am delighted that the Bill has now received Royal Assent ... This Act marks a landmark in higher education. It gives universities an additional and much needed source of independent funding but in the fairest way possible ... Everyone with potential should be given the opportunity and encouraged to aim higher and go to university. Higher education will now be free at the point of entrance and fair at the point of repayment, a fair and affordable option for students from all backgrounds (DfES: 2004a).

The ‘constructive dialogue’ mentioned by Clarke actually involved bitter controversy and a series of strong attacks by critics who attacked the Bill throughout 2003. The majority at the Second Reading of the Bill in the House of Commons on 27 January 2004 was only five votes, with more than 70 Labour backbenchers voting with Conservatives and Liberal Democrats against the Bill. This forced the government to make concessions, including increasing the size of the maintenance grant to £2700 and requiring universities in England, as part of their access plans, to provide bursaries of at least £300 a year for low income students to ‘top-up’ the state-funded maintenance grants, so as to provide a total of at least £3000 for the most disadvantaged students.

The government’s arguments, set out in the White Paper (DfES 2003) and reiterated in subsequent debates, were that additional funding was necessary to avert a serious risk of decline in UK higher education standards, to maintain international

competitiveness of British universities, to improve access and equity and allow expansion of higher education to achieve the government's target of 50 per cent of all young people aged 18–30 participating in some form of higher education by 2010.<sup>6</sup> Fees of up to £3000 a year were justified on the grounds that graduates derive substantial benefits from having a degree, including better career opportunities and financial benefits, since on average those with a higher education qualification earn around 50% more than non-graduates. The abolition of 'up-front' fees and re-introduction of means-tested maintenance grants were described not as a 'U-turn' (which they were) but as a bold step to create a system of university funding and student support that is both fair and affordable.

Critics were strongly opposed to the idea of variable fees and a substantial minority of Labour MPs argued for a flat-rate fee.<sup>7</sup> On the other hand the Select Committee on Education and Skills (2003) concluded that if variable fees were introduced a cap of £3000 was too low: "On the evidence that we have heard, the logic of the Government's position is that the cap should be set at £5000. If it does not wish to take that step, it may have to resign itself to the fact that many if not most higher education institutions will set their fees at the maximum". Both the Liberal Democrat and Conservative parties attacked the very notion of fees – whether paid 'up-front' or after graduation, and the Conservative party described the government's proposals as a '£9000 tax on learning', suggesting that abolition of fees could be financed by abandoning the target of 50 per cent participation and reducing the university sector by 100,000. A study by the Institute for Fiscal Studies (Goodman and Kaplan 2003: 47) concluded that "the Tory plans are uniformly more regressive than the proposals outlined in the White Paper. Deciding to provide 'higher education for free' rather than to 'study now, pay later' will result in a net redistribution of resources from poorer households to richer households".

The reintroduction of means-tested grants was welcomed, and was almost certainly influenced by the fact that both Scotland and Wales had already done so. Similarly, it seems certain that the decision to abolish up-front fees and defer payment until after graduation was influenced by arguments in Scotland and Wales. Scottish and Welsh politicians have certainly claimed credit for helping to convince the government. In a debate in the National Assembly on 11 February 2004 the Minister for Education and Lifelong Learning said:

Professor Teresa Rees's student hardship recommendations to the Assembly in 2001 have made their mark on the Higher Education Bill package of student support. The recommendations included bringing an end to top-up fees and replacing them with a deferred graduate contribution ... a new higher education grant ... and an uplift in the student loan repayments threshold (NAW 2004a).

Once the Higher Education Act was passed the devolved governments had to consider the implications for their own jurisdictions. There are no plans to change the system in Scotland, although the Scottish Executive is currently considering taking measures to stop a sudden influx of students from England after the imposition of variable fees in 2006–07. In Northern Ireland legislation is now going ahead, broadly similar to the Higher Education Act, which will allow higher education institutions to charge variable fees up to a maximum of £3000 a year,

subject to approval of access plans, as in England. In Wales the Minister appointed the Rees II Review to advise on the application of the devolved tuition fee powers and student support system. The next part of this chapter outlines issues and options that the Review Panel must take into account in framing its recommendations.

## 6. DEVOLUTION OF HIGHER EDUCATION FINANCE POLICY IN WALES

The Rees II Review's study of the devolution of fee policy and student support takes place against a background of policy statements and strategic plans already in place, including the National Assembly's educational vision in *The Learning Country* (NAW 2001), and the Welsh Assembly Government (WAG) strategy for higher education, *Reaching Higher* (WAG 2002), which emphasises objectives of restructuring the higher education sector in Wales to improve efficiency and cooperation between higher education institutions; widening access, particularly for the most disadvantaged; and promoting excellence in teaching and learning, research and bilingual provision. The WAG set a target that 95 per cent of young people should, by the age of 25, be ready for high skilled employment or higher education by 2015; this contrasts with the UK government's target that in England 50 per cent of those under 30 should participate in higher education by 2010. Many people in Wales believe that the Welsh target is more realistic than the English 50 per cent target, since it recognises that higher education is not the only, and not necessarily the best, preparation for skilled employment. Other WAG targets relate to increasing the proportion of undergraduates entering higher education from the most disadvantaged areas and increasing the proportion of Welsh-domiciled students studying in Wales.

Several crucial commitments have already been announced. In March 2003 the Minister for Education and Lifelong Learning announced that top-up fees will not be introduced in Wales during the life of this Assembly, which means that the earliest that Welsh higher education institutions could charge variable fees is 2007–08. There is a commitment to provide financial compensation for Welsh higher education institutions in 2006–07 to cover the loss of fee income that this will entail (the amount and distribution of this compensation is currently being negotiated). The Minister also announced, in July 2004, a new means-tested maintenance grant for Welsh students from 2006–07 of up to £2700, to match the new grants introduced in England.

These policy commitments form part of the context in which the Rees II Review must operate, together with financial and other constraints. Unlike the Scottish Executive, the NAW has no power to raise additional taxation. The Assembly's budget is determined by annual negotiations with the UK Treasury. Other factors framing the context for the Review include characteristics of the higher education sector in Wales:

- twelve higher education institutions, including the University of Wales, a federal university with ten member institutions, Cardiff University (which recently merged with the University of Wales College of Medicine) and the University of Glamorgan;

- about 60,000 full-time undergraduate students in Welsh higher education institutions in 2002–03, of which 54 per cent were Welsh domiciled and 45 per cent English domiciled;
- over 48,000 Welsh-domiciled, full-time undergraduate students at higher education institutions in the UK as a whole (including Wales);
- sixty-two per cent of Welsh-domiciled, full-time undergraduate students were at Welsh higher education institutions in 2002–03 and 38 per cent were at English higher education institutions;
- Wales is a ‘net importer’ of higher education students; in 2002–03 over 18,000 Welsh-domiciled students were in English higher education institutions, and over 25,000 students from England, Scotland or Northern Ireland were studying in Welsh higher education institutions;
- the proportion of Welsh-domiciled students studying outside Wales (38 per cent) is higher than the equivalent proportion of students from other parts of the UK studying outside their country of domicile: England 5 per cent, Scotland 6 per cent and Northern Ireland 29 per cent;
- twenty-seven per cent of young full-time undergraduate entrants were from low socio-economic backgrounds, slightly higher than for the UK as a whole;
- nearly 14,000 Assembly Learning Grants were awarded in 2002–03 to Welsh full-time higher education students, and nearly 8000 students received funds from the Financial Contingency Funds set up by the Assembly.

The Rees II Review is required to report to the Minister by April 2005 to provide recommendations for the WAG on the application of devolved tuition fee powers to Wales, including: (i) the impact on Welsh higher education institutions and students of the introduction of variable fees in England from 2006–07; (ii) the effects of introducing variable fees in Wales from 2007–08 and the effects of *not* introducing them; and (iii) the most appropriate way to provide student support, particularly to promote access for the least advantaged learners. In framing its recommendations the Review Panel must consider the effects of alternative funding policies on the financial viability, quality of provision and UK and international competitiveness of Welsh higher education institutions. If it recommends variable fees, what is likely to be the basis and extent of variability, and what controls are needed to promote access and participation in higher education while ensuring academic autonomy of institutions? If it rejects the notion of variable fees what alternative sources of income are available, and what will be the ‘funding gap’ between Welsh and English higher education institutions? In addition, the Rees II Review must consider the costs of its recommendations, as well as cross-border issues that are even more important in Wales than in Scotland. In designing a student support package, it will also hope to avoid or overcome some of the weaknesses that remain in the English

system. The remainder of this section concentrates on three sets of issues that need to be addressed in developing the recommendations of the Rees II Review.

### *6.1. Implications of the Introduction of Variable Fees in England*

In 2006–07 Welsh higher education institutions will charge a fixed fee of approximately £1200 per annum while their English counterparts may charge up to £3000. Fears were expressed in debate in the Assembly (NAW: 2004a) that Welsh universities could be “deluged with applications from English students who would be able to avoid fees by coming here”. Welsh students who might otherwise apply to England might choose to apply to Wales instead. On the other hand there has also been speculation that English universities could try to attract well-qualified Welsh students from state schools by offering generous bursaries in order to meet the access targets set by OFFA.<sup>8</sup> It is too early to predict the effect of fee differentials on demand for places in Welsh higher education institutions, since there are no reliable estimates of elasticity of demand, and it is not yet clear how many English universities will charge the maximum fee of £3000. There have been predictions that most, if not all, will seek to charge £3000, not only to maximise their income, but because they do not wish to be regarded as offering ‘cut-price’ or ‘second-rate’ courses. On the other hand, the higher education market in the UK is both differentiated and competitive, and some higher education institutions may choose to charge lower fees in order to fill places, and it is not yet known what level of fees will be authorised by OFFA for individual higher education institutions. There is already real concern, however, that the pattern of applications may be distorted in 2006–07 by different fee policies in England and Wales. Given that Scotland is taking steps to discourage an English ‘invasion’ then it seems inevitable that WAG will do the same. One method might be to announce that although there will be no top-up fees in 2006–07, there is no guarantee that students admitted in 2006–07 will not have to pay in 2007–08 and beyond, so that any financial gain may turn out to be short-lived.

It is significant that, compared to the present system, students in England from the poorest backgrounds may be worse off under the new regime. Although low income students will get grants of up to £3000 a year for three years, they could, after graduation, face fees of the same amount, which cancel out in money terms. At present their fees are waived and they receive £1000 a year in grants (£1500 a year in Wales) so they are potentially £3000 worse off, although higher education institutions may offer additional bursaries as part of their access plans. Students from the most wealthy families will be about £5400 worse off, as they face fees of £3000 a year compared to £1200 a year (the likely fee in 2006–07 under the old system). In mitigation the availability of loans is being increased, though grant-aided students will not be able to access these in full. In the light of these figures Welsh higher education institutions are likely to see an increase in applications from students in England, particularly from higher income families, and it will be important

to ensure that Welsh students from lower income families are not 'squeezed out' by any increase in students from over the border.

Although the Minister announced that higher education institutions in Wales will be compensated for the loss of fee income in 2006–07, university leaders are concerned that the amount of compensation provided will leave them at a disadvantage compared with their English counterparts. A moot point is the calculation of the compensation required, which is currently under negotiation. One university indicated in a briefing document that it would require about £3.3m in the first year and about £10m in a steady state, a figure which forms a substantial proportion of its total income, currently around £70m. If the amount received is less than this, the university could be in danger of losing academic staff to better-paid posts in England. On the basis of this estimate, a rough calculation suggests that the total cost may be about £33m a year, about 9% of WAG's higher education budget of £362m for 2004–05.

One way in which higher education institutions in Wales, as in England, are seeking to supplement tuition fee income from home and EU students is by increasing the number of overseas students, who pay full-cost fees currently up to ten times higher than home/EU fees. Virtually all Welsh higher education institutions increased the proportion of fee income from overseas students between 2002 and 2003, in some cases substantially; but even if this trend continues or increases it will not be sufficient to overcome the loss of home fee income in 2006–07. The Rees II Review must therefore estimate the size of the 'funding gap' between Welsh and English higher education institutions in 2006–07 on the basis of alternative assumptions about fee levels in England and elasticity of demand, and consider how this gap should be closed in 2007–08 and beyond.

## *6.2. Options for Higher Education Funding and Student Support in Wales From 2007–08*

The Rees II Review is examining options for funding Welsh higher education institutions, including possible ways of increasing cost-sharing. Johnstone (1986 and in this volume) identifies four financial partners that share the costs of higher education, namely taxpayers, students, their parents or families and philanthropic institutions or individuals. In the UK the contribution of philanthropy, including alumni, and industry/business is much smaller than in the USA. The feasibility of increasing contributions from these sources will be explored, but the potential income will be limited. A debate in the Assembly on 2 November 2004 voiced fears that devolution of powers to determine fee policy simply permitted a choice between unpalatable options:

We could opt not to introduce the fees and not to invest any additional money into universities in Wales. If we do that, then we will quickly see a growing disparity between the standards of Welsh and English universities ... Our universities will become second-rate establishments offering lower educational standards, attractive only to those who do not have any money ... Our next option would be to waive tuition fees in Wales, but to provide the extra money ... from our existing budgets ... If we did that Welsh universities would be deluged with applications from English students (NAW 2004b: 41).

Faced with this choice, many believe “there [is] now no option other than to introduce some student fee scheme if universities in Wales are to survive competitively” (NAW 2004b: 47). Nevertheless, some Assembly members argued strongly that “the taxation system is the best and fairest way of funding higher education” (NAW 2004b: 38) and that “regardless of whether you are talking about up-front tuition fees or deferred fees, if people think they have to repay the fees in the end, it will be an equal deterrent” (NAW 2004b: 48). Expressing their opposition to the principle of variable fees, the Liberal Democrats proposed an amendment to a motion on delegation of powers after the Higher Education Act, stating: “The National Assembly believes that variable tuition fees are, in principle, wrong”. Although this was described by one Assembly member as ‘mischief-making’ (NAW 2004b: 40) the amendment was passed on 2 November 2004.

While politically interesting, this amendment does not prevent WAG, or the Rees II Review, from considering all possible options, including the introduction of variable fees. Its terms of reference require the Rees II Review to consider the likely effects of (i) introducing; and (ii) not introducing variable fees in Wales. The principle of variable fees would give Welsh higher education institutions the same degree of institutional autonomy as their English counterparts, but they would be subject, as in England, to approval of their fee plans (although by HEFCW, rather than by OFFA). If variable fees are recommended a key issue will be the extent and basis for variability. Variable fees already exist at the postgraduate level. If they are introduced for undergraduates, Welsh higher education institutions may choose to vary fees in line with differences in the cost of different courses, or to take account of the level of demand for different courses; another possibility is that fees could, as in Australia, be varied in line with the average financial rewards which students/graduates can expect to receive from their topic of study. The WAG has already announced that it will observe the same £3000 cap as will apply in England. The Review Panel must therefore consider the possible effects of alternative fee structures on higher education institutions and students in Wales.

One tool for comparing different options will be a financial model that shows the effects of alternative fee regimes on institutional income and implications for student support. Such a model was used during Rees I to assist in the development and costing of alternative recommendations as a step towards the formulation of the Group’s final recommendations. One of the co-authors was closely involved in this exercise and has also developed a loan repayment model (described in Richards 2002) that shows the effects of alternative income thresholds and loan repayment schedules on student debt and the number of years needed to repay student loans of different amounts.<sup>9</sup> Such models will be used in the current exercise to estimate the effects and costs of alternative fee levels and student support arrangements.

One controversial issue is the expected contribution to cost-sharing from parents. In the pre-1998 system in England and Wales parents were required to make a ‘parental contribution’ to students’ living expenses. After the introduction of means-tested tuition fees in 1998 the level of a student’s fees was determined by his/her parents’ or spouse’s income (students from low income families paying reduced or zero fees). This was criticised on several grounds, including that students should be regarded as financially independent of their parents (as in Scandinavia – see

Aamodt's chapter on Norway in this volume) Johnstone (in this volume) points to differences between countries in expectations about parental contributions. In the UK the idea of a required parental contribution to tuition fees is now unpopular with both politicians and the electorate, although parents are still expected to contribute to maintenance. Johnstone (2005: 16) criticised the UK trend, which

abandons a contribution that has been paid overwhelmingly by parents (and by virtue of the means-testing, only by middle and upper middle income parents) and shifts this obligation, not to the government, but to the student via an additional loan obligation. Why this is seen as a good thing by British politicians or academics or students who fear and loathe tuition fees is a mystery.

There are several possible explanations for this mystery. One is that it has frequently been presented to the public as fairer and less damaging to access than up-front fees. Another is that since payment of the graduate contribution is income contingent the change should be regarded not so much as a shift of costs from parents to students/graduates, but a shift from using parental/family income to determine a student's fee liability to using the level of a graduate's own income to determine how quickly the debt is repaid. Whether or not this change will actually increase equity is debatable, but Scotland and England have both shifted costs of tuition in this way by replacing up-front fees with a graduate contribution and Northern Ireland is planning to do the same. The question now is whether Wales will also follow these examples, as recommended by IIGSHFW (2001).

Whatever it recommends on tuition fees, the Rees II Review must examine implications for future student support in Wales, including grants and bursaries offered by the Assembly, by higher education institutions and any other sources. Other issues include whether 'safety nets' are needed for higher education institutions and students to ensure that the fee regime does not damage either institutional quality, competitiveness and viability or access to higher education for the disadvantaged. The impact on part-time as well as full-time students is important, since most Welsh higher education institutions are adopting more flexible courses and routes to learning.<sup>10</sup> Finally, an important issue is how to explain and win public support for the new fee and student support regimes to be introduced in Wales. The first Rees Review revealed widespread ignorance and misunderstanding of student support regulations. The debates on the Higher Education Bill suggest that despite all its efforts the UK government failed to explain clearly enough the justification for and detailed implications of the new system of variable fees in England. There was certainly a failure to win popular support for the new system. The fact that the government insisted on using the term 'variable fees' rather than more politically acceptable terms such as 'contribution' (as in HECS in Australia), 'Graduate Endowment' as in Scotland, or even 'Graduate Contribution Scheme' as in the White Paper (DfES 2003) may have something to do with the misunderstandings that still persist in England; the fact that £3000 is not an 'up-front fee' but an income contingent payment after graduation is still not well understood. Whatever scheme is adopted in Wales there must be carefully devised publicity campaigns to promote public understanding and acceptance.

### 6.3. *Improving Student Support in Wales*

The introduction of means-tested grants for Welsh students was a significant improvement in student support to promote access and participation in Wales, but further improvements are possible, both in administration and design. For example, at present, the application form for Assembly Learning Grants is quite separate from the application for loans. Streamlining the application process could help improve the take-up and effectiveness of grants and loans. It is also important to overcome mistakes and problems already obvious in the English system. Anomalies and weaknesses remain after the Higher Education Act, some of which could be corrected in Wales in 2006 or 2007 and possibly, through example, in England at a later date.

There are problems relating to means-testing for both loans and grants. In the case of grants, the income of a student's family (parents or spouse) determines eligibility and amount of grant awarded; in the case of loans the SLC takes account of family income to determine whether a student is entitled to a full loan (currently a maximum of £5050 for students in London who do not live with parents)<sup>11</sup> or partial (75 per cent) loan. In both cases, family income is measured in terms of 'residual income', which Richards (2002) showed is a very poor indicator of ability to pay for a number of reasons:

- it ignores the existence of wealth;
- it ignores certain categories of investment income;
- certain outlays such as pension contributions, which are in effect deferred income, are deductible for purposes of calculating residual income; and
- calculation of residual income makes no allowance for how earned income is distributed between two parents, which can cause significant variations in after-tax income.

To remedy these defects, Richards (2002) proposed that a family's ability-to-pay should be measured by net earned income, and all investment income (or imputed income from property, etc.) should be included. This would make means-testing more sensitive to differences in family income and wealth.

Even if means-testing were improved, there is still an issue about access to loans. Because student loans are subsidised in the UK there is a significant 'effective grant' (see Johnstone's discussion of this concept in this volume). At present in England and Wales, irrespective of family income, a student can access 75% of the full loan amount (over £3000 for students not living with parents). Evidence submitted to the first Rees Review showed that students from wealthy backgrounds were taking out the maximum loan at a zero real rate of interest and investing it to get a higher rate of return or spending it on luxury holidays. We do not believe that this is a productive use of public money and suggest that in Wales, as already in Scotland, access to subsidised loans should be more restricted. The IIGSHFW report (2001)

suggested this, but the UK government did not take up this recommendation. Perhaps the WAG now will.

Other important issues are (i) the income threshold at which graduates must start to repay their student loans; and (ii) the proportion of their income that should be devoted to loan repayments. These issues will become even more important when loans for variable fees are introduced and collected after graduation, together with other student loans. The Higher Education Act increased the income threshold at which English and Welsh graduates start to repay loans from the present £10,000 to £15,000 (from April 2005). The repayment rate is 9% of income above this threshold, regardless of income level. If the marginal deduction rate increased with income, as in Australia (see Chapman and Ryan 2002), graduates with higher earnings would repay their loans more quickly, the cost of interest subsidies or 'effective grants' would be reduced, and this money could be used to increase support for the most disadvantaged.<sup>12</sup> This and other possible options must be carefully examined.

Means-tested grants have now been restored in all parts of Great Britain. This is welcome and should help to prevent students from poorer backgrounds from dropping out of university for financial reasons. However, it may not be enough to achieve the WAG target of boosting the proportion of students from poorer families who participate in higher education in Wales. A study commissioned by the Scottish Executive (Heckman and Masterov 2004) suggests that it is lack of qualifications, rather than financial factors, that account for the lower proportion of students from less privileged backgrounds going on to higher education. Research evidence from other countries covered in this volume (see e.g. Aamodt's chapter on Norway in this volume) suggests that non-financial factors, including prior educational achievement, lack of school-leaving qualifications, parental education and cultural factors may be as important as family income in accounting for the under-representation in higher education of students from lower socio-economic families. This suggests that improving access to higher education requires action at the secondary level, including special measures for students of pre-university age (i.e. sixth-formers in the UK) and not just at the point of entry to higher education. To this end the National Assembly's introduction, in September 2004, of means-tested Education Maintenance Allowances for 16 and 17 year olds (which have been successfully piloted in England) may have as great an impact on higher education participation as grants for university students.

## 7. CONCLUSIONS

Several conclusions can be drawn from the UK experience of the effects of devolution on higher education finance. First, cost-sharing, particularly the issue of tuition fees, has become so politically sensitive and controversial that the differences that have emerged since devolution between England, Scotland and Wales are likely to persist. The chapters in this volume on Canada and the USA show that state and federal governments may have different priorities and therefore choose different policies for financing higher education. There are interesting parallels between the

debates on the Higher Education Act in the UK and recent debates on tuition fees in Germany (described in Ziegele's chapter). International experience has already been used in the UK to inform or influence policy decisions. Johnstone (1986) was influential in the campaign for student loans in the 1980s and Australian experience with HECS (analysed by Chapman in this volume) has had considerable impact on recent policy development in the UK. This volume shows that there are other interesting parallels and lessons that can be drawn from international experience.

A striking degree of political and popular support has gathered, in Scotland, Wales and most recently in England, around the idea of abolishing up-front tuition fees in favour of deferred cost-sharing, collected through income contingent graduate contributions. This has been presented as more equitable than tuition fees. Yet some of the popularity of the graduate contribution is based on misunderstanding. Many people believe that higher education in Scotland is now 'free', forgetting that graduates must pay a £2000 contribution. The fact that abolition of means-tested fees in Scotland involved an increase in debt for lower income students and a reduction of costs for wealthy families is not widely understood.

The return of means-tested grants in the UK is a significant and welcome development. Most countries represented in this volume have adopted a combination of means-tested grants and loans, and it is now widely accepted that the total abolition of grants in the UK in 1998 was a serious mistake. We have argued in this chapter that there is scope for further improvements in student support, particularly with regard to means-testing. One of the guiding principles of the Cubie Committee in Scotland, and the two Rees Reviews in Wales, is that the principles and rules of student support – both grants and loans – should be simple, transparent and easily understood. The Higher Education Act of 2004 has introduced a number of important changes in the UK system of student support, but simplicity is not a distinguishing feature. This chapter describes some of the considerable challenges facing the Rees II Review in drawing up recommendations on fee policy and student support in Wales. Whatever systems are finally adopted for financing Welsh higher education institutions and supporting Welsh students, one of the biggest challenges will be to ensure that there are effective campaigns to explain them, clearly, to all stakeholders. One of the lessons of international experience is that even the best models for cost-sharing will fail if the justification and advantages are not adequately communicated to students, their families, staff of higher education institutions and the wider community. The UK government did not succeed in gaining widespread popular support for the changes introduced in the 2004 Higher Education Act. It will be particularly important for the Rees II Review and the Welsh Assembly to draw lessons from this, and try to be more successful in winning public acceptance, understanding and support.

## NOTES

- 1 This target has not been adopted in Wales, where the National Assembly for Wales has set its own targets (discussed in section 6 of this chapter).
- 2 About 50 per cent of Welsh students, through their parents/spouses, paid full or partial fees in 2002–03, compared to 57 per cent of all English and Welsh students.

- 3 Certain categories of graduate are exempt from paying the Graduate Endowment contribution, including those who, during their studies, were mature students, independent of their parents, lone parents, disabled students or part-time students, or took particular courses such as nursing and midwifery or Higher National Diploma (HND) or Higher National Certificate (HNC) courses.
- 4 In Wales, unlike Scotland where grants partially replaced loans, grants were introduced without any reduction in the entitlement to loans.
- 5 For this reason the plans of higher education institutions are referred to as 'access plans' in England but 'fee plans' in Wales.
- 6 This target, which applies only to England, has recently been modified to include vocational education and training, as well as higher education. A different target has been adopted in Wales (see section 6 of this chapter).
- 7 The principle of fee variability already exists in postgraduate fee structures. The fee for an MBA course in the Royal Agricultural College, for example, is under £3000 compared with nearly £40,000 in the London Business School.
- 8 One of the indicators likely to be used by OFFA in monitoring access plans in English universities is the proportion of students who were educated in state schools, rather than in private schools. In Wales a higher proportion of pupils go to state schools than in England.
- 9 Use was made of this model in a DfES guide to the new regime for parents and students (DfES 2004b) and also in a press briefing at the time of the White Paper. A table from Richards (2002) was reproduced almost exactly, although no acknowledgment was made of the source of the model.
- 10 Forty-nine per cent of all first-year students at Welsh higher education institutions in 2002–03 were studying part time.
- 11 In 2004–05 the maximum loan for students living with parents was £3240; those living away from parents outside London could borrow a maximum of £4095, and for those living away from parents in London the maximum was £5050. In addition there are adjustments for students with dependents, disabilities or other special factors.
- 12 One option would be to increase the proportion of income deducted to repay student loans so as to close what has been called the 'National Insurance Gap' (Goodman and Kaplan 2003), which arises because the marginal rates of deduction of income tax and National Insurance Contributions differ in a way that results in a *fall* in the combined marginal rate for incomes between £31,720 and £36,145. This means that the combined effect of income tax, National Insurance Contributions and income contingent loan repayments changes from progressive to regressive for this band of income.

## REFERENCES

- Anderson Committee. *Grants to Students*. Report of the Committee appointed by the Minister of Education and the Secretary of State for Scotland. Command 1051, London: HMSO, 1960.
- Barr, N. *Student Loans: The Next Steps*. Aberdeen: University Press, 1989.
- Barr, N. and I. Crawford. *Financing Higher Education: Answers from the UK*. London and New York: Routledge, 2005.
- Callender, C. and M. Kemp. *Students in Wales: An Analysis of Data from the Student Income and Expenditure Survey 1998/99*. Cardiff: IIGSHFW, 2001.
- Chapman, B. and C. Ryan. "Income Contingent Financing of Student Charges for Higher Education: Assessing the Australian Innovation." *The Welsh Journal of Education*. Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 64–81.
- DES (Department of Education and Science). *Top-up Loans for Students* (White Paper). London: HMSO, 1988.
- DfES (Department for Education and Skills). *The Future of Higher Education* (White Paper). London: HMSO, Cm 5735, 2003.
- DfES (Department for Education and Skills). *Future of Universities Secured Today as Higher Education Act is Approved by Parliament*. Press Release, 1 July 2004a, <http://www.gnn.gov.uk>.
- DfES (Department for Education and Skills). *Financial Support for Higher Education Students: Guide for 04/05*. London: HMSO, 2004b.
- Goodman, A. and G. Kaplan. 'Study Now, Pay Later or HE for Free?' *An Assessment of Alternative Proposals for Higher Education Finance*. Commentary 94. London: The Institute for Fiscal Studies, 2003.

- Gorard, S. and C. Taylor. *Student Funding and Hardship in Wales: A Statistical Summary*. Cardiff: IIGSHFW, 2001.
- Heckman, J. and D. Masterov. *Skill Policies for Scotland*. The Allander Series. Glasgow: University of Strathclyde, 2004.
- House of Commons Education and Skills Committee. *The Future of Higher Education*. Fifth Report of Session 2002–03. London: HMSO, 2003.
- Independent Committee of Inquiry into Student Finance. *Student Finance, Fairness for the Future* (The Cubie Report). Edinburgh: Independent Committee of Inquiry into Student Finance, 2000.
- IIGSHFW (Independent Investigation Group on Student Hardship and Funding in Wales). *Investing in Learners: Coherence, Clarity and Equity for Student Support in Wales*. A Report to the Minister for Education and Lifelong Learning at the National Assembly for Wales. Cardiff: IIGSHFW, 2001.
- Johnstone, D. Bruce. *Sharing the Cost of Higher Education: Student Financial Assistance in the United Kingdom, the Federal Republic of Germany, France, Sweden and the United States*. New York: The College Board, 1986.
- Johnstone, D. Bruce. “Challenges of Financial Austerity: Imperatives and Limitations of Revenue Diversification in Higher Education.” *The Welsh Journal of Education*. Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 18–36.
- Johnstone, D. Bruce. “Fear and Loathing of Tuition Fees: An American Perspective on Higher Education Finance in the UK.” *Perspectives* 9.1 (2005): 12–16.
- NAW (National Assembly for Wales). *Better Wales*. Cardiff: NAW, 2000, <http://www.wales.gov.uk/themesbetterwales/about-e.htm>.
- NAW (National Assembly for Wales). *The Learning Country*. Cardiff: NAW, 2001.
- NAW (National Assembly for Wales). *The Official Record*. Debate on 11 February, 2004. Cardiff: NAW, 2004a.
- NAW (National Assembly for Wales). *The Official Record*. Debate on 2 November, 2004. Cardiff: NAW, 2004b.
- NCIHE (National Committee of Inquiry into Higher Education). *Higher Education in the Learning Society* (The Dearing Report). London: HMSO, 1997.
- Rees, T. “The Independent Investigation Group on Student Hardship and Funding in Wales: Reflections from the Chair.” *The Welsh Journal of Education*. Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 10–17.
- Rees Review. *Fair And Flexible Funding: A Welsh Model to Promote Quality and Access in Higher Education*. Final Report of an Independent Study into the Devolution of the Student Support System and Tuition Fee Regime in Wales (The Rees Review). Cardiff: Welsh Assembly Government, 2005, <http://www.learning.wales.gov.uk/students/whats-new-e.htm>.
- Richards, K. “Reforming Higher Education Student Finance in the UK: The Impact of Recent Changes and Proposals for the Future.” *The Welsh Journal of Education*. Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 48–63.
- Stroud, D. *Student Financial Hardship in Further and Higher Education with Special Reference to Wales: A Research Review*. Cardiff: IIGSHFW, 2001.
- UK Parliament, Select Committee on Education and Employment. Fourth Report (30 January 2001), Annex 1, The Scottish Debate, 2001, <http://www.parliament.the-stationery-office.co.uk/pa/cm200001/cmselect/cm200001/cm200001/205/20512.htm>.
- WAG (Welsh Assembly Government). *Reaching Higher. Higher Education and the Learning Country: A Strategy for the Higher Education Sector in Wales*. Cardiff: WAG, 2002.
- Woodhall, M. *Financial Support for Students in Higher Education*. NCE Briefing No. 17, London: National Commission for Higher Education. Reprinted in The Paul Hamlyn Foundation, National Commission on Education, *Briefings*. London: Heinemann, 249–265.
- Woodhall, M. “Paying for Learning: The Debate on Student Fees, Grants and Loans in International Perspective.” *The Welsh Journal of Education*. Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 1–9.
- Ziderman, A. “Alternative Objectives of National Student Loan Schemes: Implications for Design, Evaluation and Policy.” *The Welsh Journal of Education*. Special International Issue (M. Woodhall, Guest Editor) 11.1 (2002): 37–47.

## STUDENT FINANCING IN THE NETHERLANDS: A BEHAVIOURAL ECONOMIC PERSPECTIVE

### 1. INTRODUCTION

Student financing has a permanent place on the political agenda in many countries. With higher education being offered to increasing numbers of students and with limited public resources to underpin this demand for high quality higher education, students are required increasingly to play a role in alleviating the financial pressures on the public purse. This so-called phenomenon of ‘cost-sharing’ also takes place in the Netherlands. Cost-sharing in this book is defined as the predominant development towards a transfer of financial responsibilities for higher education from governments towards students and their families (Johnstone and Shroff-Mehta 2000). Cost-sharing can take place in the form of the introduction or increase of tuition fees and in the reduction of subsidies to students and their families, for example through a stronger reliance on student loans rather than on grants and scholarships. Cost-sharing can also – more implicitly – result from support policies that do not compensate students for increases in the cost of living and study costs.

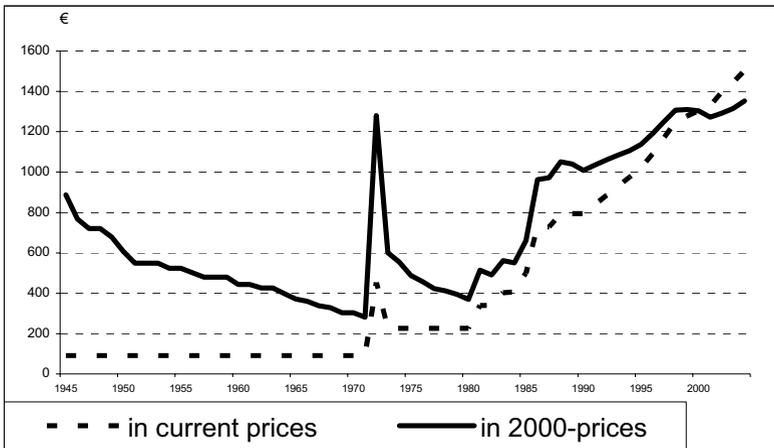
The Netherlands clearly illustrates a case where tuition has gradually increased and student support is under permanent reconstruction. The net result is that the individual costs for students and their families have increased. This chapter explores whether these developments in student financing have impacted on student choice and access in Dutch higher education.

The chapter will look first at the general developments in tuition and student support policies in the Netherlands (sections 2 and 3). In section 4 the major results from Dutch student choice research will be discussed, focusing on the impact of tuition and student support on student choice and access. Because this research shows that financial incentives appear not to have the impact on student choice that is expected by traditional student choice theories, we explore the applicability of a theoretical framework – behavioural economics – on student choice in section 5. This approach tries to integrate psychological phenomena into economic theory and research. The empirical results from a first test of the behavioural economic approach in the area of student choice are presented in section 6. The final concluding remarks are drawn up in section 7.

## 2. TUITION POLICIES

Tuition fees concern charges that individual students have to pay to cover (part of) the costs of instruction. As such, they are the most visible indicator of the cost of higher education to individual students. Tuition fees can cover all instruction costs or only part of them. In many countries, governments heavily subsidise higher education institutions in order to keep tuition rates low. The extreme case is that students do not have to pay tuition (and other fees) at all, which is the case in several countries, such as in Germany, Denmark, Finland, Sweden, Norway and most Central and Eastern European countries (Vossensteyn 2003). Such public subsidies are argued to stimulate access because tuition fees are often believed to restrict access to higher education, particularly for students from underprivileged backgrounds.

The Netherlands has a long history of charging tuition fees. Since 1945 students in publicly funded higher education have had to pay a uniform tuition fee, regardless of the costs related to different study programmes. The government annually sets the tuition rate. During the 1980s university students paid slightly higher fees than students in professional higher education institutions (HBO-sector), but in the early 1990s the fees were equalised between the sectors. Students make their tuition payments directly to the higher education institutions, which have full autonomy over these revenues. In 2003, tuition fees made up about 17% of institutional revenue in the HBO-sector and about 5.5% in the university sector – about 15% of the overall university teaching budget (TK 2003). This demonstrates that public subsidies to higher education are considerable and private contributions moderate. Figure 1 shows the development of the level of tuition fees in the Netherlands since 1945.



Source: Ministerie van OCW various years

Figure 1. Development of tuition fees (€, in current prices and in real 2000 prices)

The real value of fees declined in the 1945–71 period. During that time students had to pay NLG 200 (€91) per academic year in nominal terms. After an initial increase to NLG 1000 (€454) in 1972–73, the level was set at NLG 500 (€227) between 1974 and 1980. Since then, tuition levels have gradually increased up to €1476 in 2004–05.

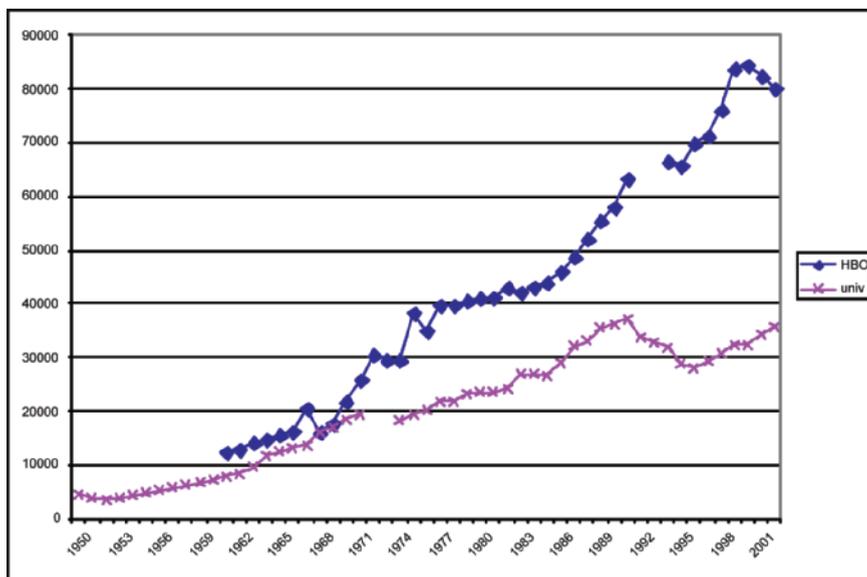
Figure 1 shows that particularly in the period since 1986 the increases in the level of fees often exceeded the rate of inflation. Even though it must be acknowledged that educational costs may not be typical for average cost developments within societies, the increasing tuition costs compared to the inflation rate suggest that a growing share of the costs of higher education has been gradually shifted to students and their families. The Dutch government did not use the instrument of tuition reduction to expand access to higher education. Due to the tuition increases, tuition fees have been an ongoing issue of debate in the Netherlands. Proponents argue that tuition charges are fair because higher education generates substantial individual future rewards (monetary as well as non-monetary). But opponents argue that tuition prevents students from lower socio-economic backgrounds from entering higher education. Consequently, proposals to substantially increase tuition fees meet heated political debate. As good Dutch tradition has it, such debates generally end in compromises which only lead to moderate tuition increases accompanied by full compensation for low income students through grants. This explains the steady incremental tuition path since the 1980s as shown in figure 1.

The most recent discussion on tuition fees stems from 2002–03 when the issue of differential tuition fees was raised. The Ministry of Education, Culture and Science started this discussion, in the first instance, to stimulate competition, particularly to allow institutions to charge higher tuition for programmes with enhanced quality. But second, also to increase the financial attractiveness of particular subjects like science, engineering and teacher training in an effort to raise participation levels in these subjects, which was deemed necessary from a labour market perspective. However, opponents feared that differential fees would harm access, particularly for poor students who would no longer be able to attend high quality programmes. They did not refer to the fact that reducing fees in already expensive study programmes like science and engineering would imply even greater public subsidies and would stimulate access for underprivileged students. But it was questioned whether lower fees would actually attract more students to the desired programmes.

### 3. STUDENT SUPPORT POLICIES

The second major area of student financing policies is financial support for students to meet the costs of instruction and living. Student support includes grants and loans but also tax benefits and family allowances. Since 1945, the system of student support remained rather stable for many years, however the focus of the policies changed between periods (De Regt 1993). In the early days the major drive was to open up opportunities for small numbers of talented low income students. Between 1956 and 1972, economic growth and the general tendency of democratisation emphasised

opening opportunities for all. This period laid the basis for the massification of higher education, though student support remained restricted to small bursary and loan programmes. Financial support consisted mainly of tax benefits and family allowances for students' parents. A more far-reaching student support system was being discussed, but due to the oil crises in the early 1970s governmental resources were limited and the actual implementation of such a system was postponed until 1986. Despite the restrictive student support policies, the 1970s showed a considerable increase in participation rates as shown in figure 2 (Kaiser and Vossensteyn 2005).



Source: CBS StatLine 2004

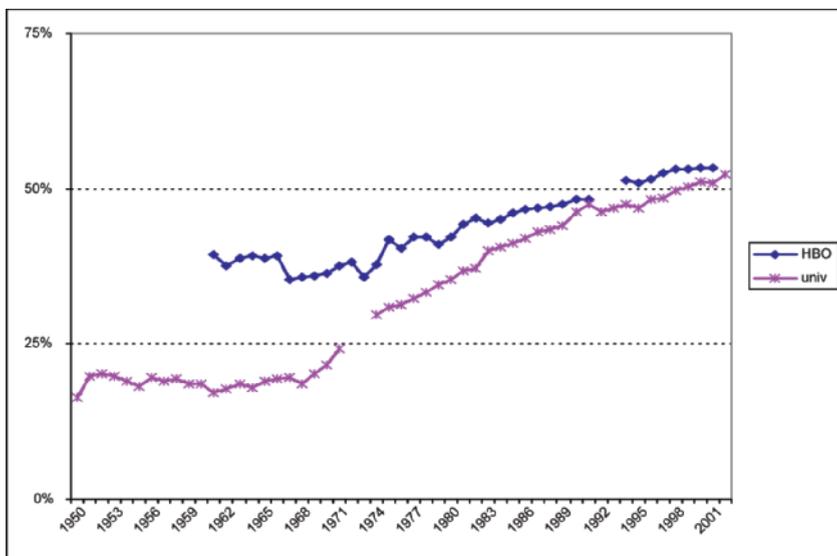
*Figure 2. New entrants in Dutch higher education, by type of institution*

In addition, the gender imbalance in the participation in higher education disappeared to a large extent during the 1970s and 1980s as indicated in figure 3. The increasing participation of female students cannot be related to student support policies, because those policies only became relatively generous from 1986 onwards.

In 1986, the existing system of financial arrangements was replaced by a new relatively generous system of student aid through the implementation of the Student Finance Act (WSF). Under the new system, that is still largely in place today, all support is given directly to students. The system established a compromise between access, students' financial independence, transparency and simplicity of the system,

and affordability for the government (Hupe and Van Solm 1998). The major characteristics of the system are the following:

- A basic grant (basisbeurs) for all full-time students. In 2004, students who lived with their parents received €74.11 per month and students who lived away from home received €228.20 per month (12 months per year).
- A means-tested supplementary grant for a limited number (about 30%) of students, up to a maximum amount of €237.30 in 2004.
- Loans that can be taken up on a voluntary basis, carrying a below-market interest rate, up to €253.27 per month in 2004.
- Parental contributions or students' own income. The parental contributions are strongly interrelated with the (parental) means-tested supplementary grants and loans. Depending on their income, parents are supposed to contribute up to a maximum of €237.30 per month (if they want to contribute more, they are free to do so).
- Students can earn up to €10,218.46 net per annum (in 2004) before they start losing any of their grant entitlements. This earnings facility is offered to students to provide them with the opportunity to offset parental contributions or loans, or to allow them to increase their monthly budget.



Source: CBS StatLine 2004

Figure 3. Female new entrants as a percentage of total number of new entrants

All components together add up to a given amount that students are expected to need for study and living costs according to annual estimations of the Ministry of Education, Culture and Science. The amount required depends on a student's residential status (living in the parental home or elsewhere). The budget includes study costs (tuition and study materials) and living expenses. In 2004–05 the required monthly budget is € 718.77 for an independent student and €544.10 for students living at their parents' home (IBG 2004). From this perspective (full-time) students should not face any financial barriers for entrance into higher education. Several empirical studies have shown that actual student expenditure is substantially higher than the standard budget allowed by the government. This implies that parents contribute to a larger extent than they are expected to or that students are involved in (part-time) jobs.

### *3.1. Developments Within the System of Student Support*

Based on demographic developments, the government in 1986 expected the number of students to decline which would allow a relatively generous system of student support. However, due to strongly increasing transition ratios towards higher education, the opposite occurred. This development, together with limited public budgets, stimulated a large number of changes that have taken place in the support system since 1986 (Vossensteyn 1997, 2002). The major changes will be briefly discussed below.

#### *3.1.1. Reductions in Basic Grant Entitlements*

Because of an unexpected increase in student numbers, the budget for student financial assistance exceeded its limits soon after the system was introduced. In response, the government reduced the amount of the basic grant several times. In addition, the basic grant was reduced in exchange for a public transport pass provided to all students in 1991.<sup>1</sup>

Furthermore, in two successive steps, in 1991 and 1996, the period that students are entitled to grants (basic grants as well as supplementary grants) was limited from the nominal course duration plus two years, to the nominal duration of courses (which regularly is four years, five years for science and engineering courses and six years for medicine). This was of considerable consequence, because most students in the Netherlands exceed the nominal duration of their course. After the nominal course duration, students are entitled to three more years of full loan funding.

#### *3.1.2. Increases in Supplementary Grant Entitlements*

Whereas the amount of basic grants was gradually decreased, increases in supplementary means-tested grants for students from less well-off families compensated for this loss. As a consequence of the basic principle of Dutch student support policies that access to higher education should be guaranteed for students from disadvantaged backgrounds, the supplementary grant increases also compensated for tuition increases. Supplementary grants are available for about 25% to 30% of all full-time students.

### 3.1.3. *Growing Importance of Loans (Partly Replacing Grants)*

Over the years, student loans grew in importance. As with supplementary grants, student loans also covered reductions in the basic grant, increases in tuition fees and increased living costs. In addition, students have been permitted to replace (assumed) parental contributions with student loans since 1995. Furthermore, students have to rely on full loans beyond the nominal duration of their programme. Finally, all grants are initially provided as loans since the introduction of the performance-related grant in 1996 (see below).

Regardless of the fact that loans have become more important in the system of student support, students' actual borrowing behaviour shows that only a relatively small proportion of students take up loans. Originally, when student loans were interest free during the period of study, many students took up the loans. However, in 1992 the government decided to charge interest on student loans while students were still studying. Since then, the number of students taking up loans declined dramatically from around 40% in 1992 to about 15% (De Vos and Fontein 1998). Before 1992, many students had used interest free student loans to make a profit by putting them in regular savings accounts until they graduated. In addition, since 1992, many students replaced student loans with (interest free) loans from their parents or with revenue from gainful employment. Recently, the proportion of students taking up student loans has gradually gone up to about 19% in 2003.

### 3.1.4. *Imposition of Performance Requirements*

A major reform of Dutch student support stems from the introduction of performance requirements which aimed at shortening the actual duration of study and increasing the graduation (or success) rate. Since 1993 students have had to meet performance requirements in order to remain eligible for grants. Under the so-called 'progress-related grant' (*Tempobeurs*) students had to pass 25% of the annual study credits otherwise their grants would be converted into interest-bearing loans (Hupe and Van Solm 1998). In 1996, the progress requirements were intensified through the 'performance-related grant' (*Prestatiebeurs*). Since then, all grants have been awarded initially as loans. Only if students pass 50% of the exams in the first year and complete their degree within the nominal duration of the programme plus two years (six or seven years in total) will their initial loans be converted into a grant. In 2000, the time limit to complete a degree was relaxed to 10 years for all programmes; this was done particularly to allow students to be involved in extracurricular activities and part-time work (Ministerie van OCW 1999). With the introduction of the bachelor/master structure, students can get their initial loans converted into grants after receiving their bachelors or masters degree. The time limit has remained 10 years.

The 'performance-related grant' in fact produced a huge artificial budget saving for a number of years. Because student loans have to be repaid with interest, these are not regarded as public transfers to students (Vossensteyn 1997). As a result, they do not have to be accounted for in the public budget. Thus, by providing grants as initial loans the government deferred the relevant public expense of student grants for some years.<sup>2</sup>

### *3.1.5. Parental Contributions and Students' Own Income*

Due to the developments addressed above, and the fact that students' actual monthly budget exceeds the standard budget (and what they can receive through student financial support), the role of parental contributions and students' own income from employment increased substantially. In addition, putting a real interest rate on student loans (in 1992) and the introduction of performance requirements (in 1993) made students debt averse. As a result, students became very active in using income from part-time jobs, not only to enable a higher spending pattern but also to avoid taking up loans (Vossensteyn 1997). In addition, some groups of parents wanted to prevent their children from incurring high study debt and contributed more to the costs of study as they are supposed to.

### *3.1.6. Overall Results*

Most of the changes implicitly meant budgetary reductions and were aimed at encouraging students to pursue more efficient study patterns. As a result, the developments in student financing show that the relative financial situation of students has gradually deteriorated since the new system of student financial support came into place in 1986. Though the government argued that there were good reasons for increasing tuition levels, placing higher emphasis on student loans and introducing study progress requirements, attending higher education has gradually become less attractive from a direct costs perspective, as is shown in figure 4.

Figure 4 also clearly points out that the focus of student support in the Netherlands has shifted from basic income provision to targeting funds for access by students from disadvantaged backgrounds, particularly since the early 1990s. The major results from these developments include the gradual decline since 1986 of the relatively affluent position of Dutch students – in an international comparative sense – and increased cost-sharing in the Netherlands (Vossensteyn 1999, 2002). What this has meant for students and access to higher education in the Netherlands is explored in the following section.

## 4. THE IMPACT OF STUDENT FINANCING ON DUTCH STUDENTS: A LITERATURE REVIEW

Until the mid-1980s, student financial support was relatively moderate or poor in the Netherlands and thus could not be expected to generate massification in higher education. Nevertheless, rapid expansion of higher education occurred during the 1960s and 1970s, which also reduced the gender imbalance to a large extent. These developments appear to be more the result of general societal tendencies than active access policies.

However, the introduction of a relatively generous system of student support in 1986 could be expected to boost access and participation just as the gradual tendency towards cost-sharing can be expected to generate lower participation levels, provide the choice of cheaper (shorter) or easier study programmes, or result in a reduction of the average time to graduation. A number of studies on student choice looked into the potential relationships between student financing policies and

participation. However, most of these studies indicated no clear relationships between changes in student finance and changes in student choice or in the composition of the student body (De Jong et al. 2001; De Jonge et al. 1991; Canton and De Jong 2002). In the following, the findings of various studies will be discussed around a few major issues.



Notes: Information only for students living away from their parents (about 75% of the students). Students living with their parents only receive lower basic grants. Supplementary grants and loans concern maximum amounts. Students are allowed to replace parental contributions with loans  
Source: IBG 2004

Figure 4. Developments in student support in the Netherlands (1987–2004, in €, current prices)

#### 4.1. Tuition Fee Increases and Grant Decreases

As previously discussed, tuition fees have gone up incrementally in the Netherlands, whereas basic grants have been gradually reduced. But it has been found that student choice behaviour in general appears to be price inelastic. Most studies show that the real increases in tuition fees did not impact on access in terms of enrolment patterns. Such price unresponsiveness dates back to the 1980s and continued into the 1990s (Oosterbeek and Webbink 1995). A simulation model showed that even substantial tuition fee increases will hardly affect enrolment rates, except for students from lower socio-economic families (Sterken 1995). Furthermore, a recent survey by Felsö, Van Leeuwen and Van Zijl (2000) indicated that students would not change their preferences in cases where tuition fees were either increased or reduced by €450. These findings seem to be counter intuitive in light of the massive protests sparked by a 1995 proposal to suddenly increase tuition fees by €450 (NLG 1000). Maybe it is because of the gradual characteristic of these developments that Dutch

students appear not to be very sensitive to changes in the financial arrangements in relation to their enrolment decisions.

Leuven, Oosterbeek and Van der Klaauw (2003) ran a randomised field experiment in which first-year economics and business students at the University of Amsterdam could earn financial rewards for completing the first year of study within one academic year, which is rare in Dutch universities. The financial rewards were €681, €227 or €0, the highest being close to the annual amount of basic grants for students living with their parents. Controlling for many external factors, the results showed that the financial rewards did not improve the students' study efforts and final achievements, even though the students at the beginning indicated that the reward would increase their passing rates.

An interesting phenomenon in this respect is the level of participation in engineering and science programmes. Like many other countries, Dutch higher education suffers from a growing lack of interest in these types of study programmes, which may be harmful to the 'knowledge society'. In spite of several national information campaigns and financial incentives of universities of technology (in particular), it is difficult to change this trend. Felsö, Van Leeuwen and Van Zijl (2000) showed that abolishing tuition fees might increase enrolments in science and engineering programmes by 7% at most. De Jong et al. (2001) argue that guaranteeing students a job after graduation would be a stronger influence. However, science and engineering programmes suffer from a poor image being regarded as nerdy, masculine, difficult and harsh, particularly after the nominal duration of these university programmes was extended from four to five years in the mid-1990s. Some universities of technology experimented with giving students additional scholarships but this did not attract extra students.

#### *4.2. Study Progress Requirements*

Regardless of the low impact of tuition and grants on student enrolment behaviour, the introduction of study progress requirements may be expected to have generated some influence. Although progress requirements sound reasonable – getting your degree within one and a half times the normal duration of a programme – it meant a serious cultural change. Nevertheless, the 'performance-related grant' had only a temporary effect on participation in higher education. Initially, the number of new entrants to university studies decreased slightly. Some (potential) students postponed their actual enrolment by one year. In addition, of those qualified for university study, more students than usual enrolled in the institutions for professional higher education (HBOs), the main reason being that the latter programmes are perceived to be easier to complete (De Jong et al. 1996; De Jong et al. 2001).

However, within a few years, the traditional enrolment patterns appeared again. Nonetheless, the new system of performance requirements has been under continuous attack. Both student organisations and higher education institutions warned of the negative consequences like decreasing involvement in student extracurricular activities. In addition, students demanded guarantees that they would be able to complete their degree within the limited time frame, whereas universities

argued that a more structured study path would harm the academic character of higher education and the independent attitude of students.

#### *4.3. Loans*

An interesting phenomenon is that the number of students who take up loans has decreased over time, which is contrary to the growing role of loans in Dutch student support. The first and most obvious reason is that since 1992 students have been charged interest on their study loans while still in college. The take-up rate for student loans declined from over 40% in 1991 to less than 15% in 1998 (De Vos and Fontein 1998). This decline was due partly to the fact that many students had used interest free student loans to make a profit before 1992. They just put the money in regular savings accounts until graduation. Students in later stages of their programmes seem to be more willing to take up loans than those in earlier stages. In addition, parents' ideas about whether or not their children ought to take up student loans seem to be important. Loan take-up rates have gone up slightly since 2000.

Some recent surveys on student borrowing indicate the following. Mattens, Oomen and Veltman (2003) found that many students do not borrow because they do not need the money since parental contributions and job earnings generate sufficient resources. Students who do borrow, generally receive less parental contributions. The major conclusion from this study is that students generally are not deterred by loans. They would rather prevent a study debt by getting higher job earnings, parental contributions or by studying faster. But according to Biermans et al. (2003), the preference of increased job activity or speeding up one's study pace to prevent (increased) borrowing is a clear expression of a fear of debt. The latter authors underpin this argument with the finding that almost 30% of the surveyed students in 2002 said they would not enter higher education if student support consisted of student loans only. The truth probably is somewhere in the middle. Increased job activity is probably not only stimulated by a fear of debt but also by increased job opportunities for students due to the labour market shortages in the late 1990s, particularly when students were given more flexibility in terms of more relaxed study progress requirements in 2000. General tendencies show that young people increasingly attach higher values to having a higher standard of living, as Mattens, Oomen and Veltman (2003) explicitly found.

Other reasons for the decline in student borrowing may be found in the introduction of the 'performance-related grant' and in students' involvement in part-time work. Because students receive their grant portions initially as loans under the 'performance-related grant' system, they may be less likely to take up additional voluntary student loans. Finally, students also appear to borrow extensively outside the public student loans system, for example, from family, using bank overdrafts or credit card debt. Many even take up flexible and temporary loans from private banks to cover extraordinary expenses, such as computer equipment or holidays (Kerstens and De Jonge 1999). Such flexible arrangements are not possible with the loans from the student support agency (IBG 2004) which only provides student loans in monthly instalments.

#### *4.4. Overall Conclusions From Previous Research*

All in all, various studies referring to different time periods all came to the conclusion that financial issues did not substantially affect student choice or enrolment patterns. Regardless of all debates, no single study has been able to show that the development towards cost-sharing in the Netherlands has harmed access for disadvantaged students. Student choice appears to be much more influenced by the level of parental education, grade averages in secondary education, and the distance between home and the higher education institution (Biermans et al. 2003). Even the introduction of study progress requirements seems to have had only temporary and minor effects in terms of some potential students postponing enrolment in higher education and some choosing studies perceived as being easier to complete. Neither is there a relationship between increased cost-sharing and the declining interest in science and engineering courses. Finally, students hardly use the available student loans facilities, even though its conditions are favourable.

Most of these results confirm what has also been found in international studies. For example, the introduction of substantial tuition fees in Australia (from 1989) did not harm enrolment rates nor change the socio-economic composition of the student body. In addition, the participation patterns of people from lower socio-economic backgrounds illustrate that the impact of equity policies has been very limited (James and McInnis 2003). In the UK, only a slight and temporary change in enrolment preferences can be detected after the imposition of considerable tuition fees in 1998 or the transfer to a full loans system and abolition of grant support in 1999 (UCAS 2003). However, American studies often find larger effects of financial incentives on the enrolment patterns of students from lower socio-economic backgrounds, such as, for example, they choose shorter, cheaper and less prestigious educational opportunities (Heller 1997; McPherson and Schapiro 1997).

The major remaining question is: Why do students hardly respond to financial incentives, when these incentives are often said to be a major tool in influencing people's behaviour? In the following sections, a new theoretical framework is explored and tested to address that question.

### 5. BEHAVIOURAL ECONOMICS: A NEW PERSPECTIVE

As the above research results indicate it appears that traditional economic theories, such as general price theory and human capital theory, cannot fully explain student price responsiveness. General price theory states that (all) students generally respond to price changes through short-term changes in their study choice. Though students from lower socio-economic backgrounds may respond more strongly, better-off students are also expected to react to price changes. This in many cases does not hold. We know too many examples where changes in tuition or student support are not followed by enrolment changes, except for students from lower socio-economic backgrounds.

The second and more dominant theoretical perspective in relation to student choice is human capital theory. Though human capital theory is based on general price theory, it takes a long-term investment perspective in which it states that as

long as individual benefits of higher education exceed individual costs, students will invest, regardless of their current income position and socio-economic status. This expectation, however, is contradicted by the fact that in many countries qualified people from lower socio-economic backgrounds are strongly under-represented in higher education, even if the returns to higher education across the board are rather high. Even according to more recent and extended versions of human capital theory, which also account for consumption benefits, uncertainty and time preferences, it appears strange that – given the often enormous returns to higher education – lower socio-economic status students are price sensitive and many students indicate they are averse to taking up loans to overcome short-term cash restrictions. Overall, empirical evidence shows that students from lower socio-economic backgrounds seem to react according to the laws of general price theory, whereas higher socio-economic status students behave according to the human capital perspective.

In an attempt to find a more satisfying theoretical explanation for student price responsiveness, we explore a theoretical model that may help overcome the constraints of the human capital model and its underlying assumptions, particularly the assumption of ‘rationality’. In this new approach, called ‘behavioural economics’, the impact of financial factors may not be as straightforward as predicted by standard economic theory but individual reactions may rather be ‘filtered’ through a number of psychological mechanisms as described in the theory of behavioural economics (Vossensteyn 2005). In the end, behavioural economics might offer some additional extensions that may enrich and improve the explanatory power of the already rather flexible human capital framework.

### *5.1. Theory of Behavioural Economics*

The theory of behavioural economics is based on the idea that people systematically deviate from rational behaviour. This theoretical paradigm describes human behaviour by integrating a number of psychological concepts into economic theory reflecting a more general development toward integrating concepts of other social sciences into economics. Behavioural economics is based on the prospect theory developed by Tversky and Kahneman in 1979 (e.g. Kahneman and Tversky 2000) and further elaborated by social scientists such as Thaler (1991) and Rabin (1998).

Behavioural economics extends Herbert Simon’s concept of bounded rationality by focusing particularly on questions of why people in various decision-making settings act in a seemingly non-economic and non-rational way. Behavioural economists argue through many examples and experiments that actual behaviour of people systematically differs from rational and selfish choice. Such systematic deviations are often called biases or anomalies. As Thaler (1992) puts it: “An anomaly is a fact or observation that is inconsistent with the theory”. Even if we allow people to make systematic errors in their attempts to maximise their preferences, this can be misleading. A substantial amount of evidence indicates that people have difficulties in evaluating their own preferences (Rabin 1998; Hammond 2000). For instance, Sippel (1997) showed that people often buy cheap but less energy efficient refrigerators, which turn out to be more expensive after a couple of

years then more expensive refrigerators that are more energy efficient. Behavioural economists have extended such ideas about the lack of coherence and rationality in human judgment and about systematic errors in human reasoning into a more positive theory of consumer choice.

Focusing on decision making in situations of uncertainty, scholars working with the theory of economic behaviour refer to a multitude of psychological concepts that can influence individual economic decision making (e.g. Thaler 1991; Rabin 1998; Elster 1998; Kahneman and Tversky 2000). To limit the abundance of psychological concepts to be described here, we will not discuss concepts that seem to have no direct relevance to student choice behaviour. One can for instance think of concepts that have much to do with emotions and interpersonal relationships, such as love, fairness, envy, revenge, hatred and shame. Psychological phenomena that at first sight look important for the relationship between financial incentives (such as tuition, fees, grants, loans, etc.) and student choice include: reference levels, loss aversion, the endowment effect, mental accounting and intertemporal choice. These concepts and their relevance for studying student choice will be further explored in the next section.

### *5.2. Applying Behavioural Economics to Student Choice*

Behavioural economics addresses particularly economic decision making under uncertainty. Because (potential) students are uncertain about the actual contents of the study, getting a degree and finding a proper job after graduation, the decision to attend higher education and to select a particular programme is surrounded by a lot of uncertainty. As such, concepts like reference levels, loss (and risk) aversion, diminishing sensitivity, mental accounting, intertemporal choice, endowment effects and rules of thumb, all seem to be relevant to the relationship between tuition fees, student support and student choice. According to behavioural economics, these psychological phenomena form a 'filter' or a mental framework through which students judge financial incentives in relation to their study choices.

An important step in our model is that the mental framework is influenced by a number of background characteristics of the students involved. By background characteristics we mean for example socio-economic status, gender and ethnicity. The background characteristics of students determine their reference levels and the extent to which they are sensitive to psychological phenomena like diminishing sensitivity, intertemporal choice effects or mental accounting. Figure 5 presents a model in which the relationships between financial instruments, students' perceptions about these, background characteristics and student choice are made explicit. The model focuses primarily on the most important variables for understanding student price responsiveness in a behavioural economic context. But it also includes other potential factors and relationships that have been found important in existing student choice research. These are indicated in the model by the broken line.

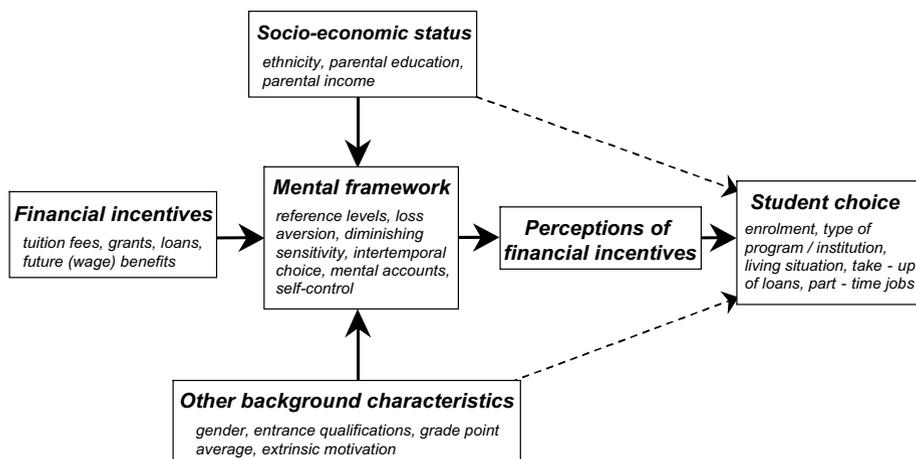


Figure 5. The students' financial perceptions model

In short, the model depicts that financial incentives do not directly impact on student choice but through the mental framework of students which results in the perceptions students have of these financial incentives. In addition, background characteristics are likely to influence the mental framework, and thus the perceptions, of students. Furthermore, the model distinguishes between two different relationships, the first being the process in which perceptions are formed about the financial incentives, and the second being the relationship between the perceptions of students on financial incentives and their actual study-related choices. Finally, all variables work at the individual level. Despite the fact that financial incentives may exist of general public policies that lead to variables that are similar for whole cohorts of students, individual students are confronted with individualised values of these incentives or policies.

In the following, we explain how psychological mechanisms can influence the way (prospective) students perceive financial instruments and thus how these can be expected to impact on the study choice they make.

### 5.2.1. Reference Levels

The key issue concerning reference levels is that people value the alternatives in a decision situation as gains or losses relative to a reference point, not as the absolute outcomes of a decision. The reference point normally is the 'current position' of the individual. As such, the status quo often is seen as rather important, also referred to as the status quo bias (people tend to cling to the status quo when evaluating changes). The phenomenon of reference levels works in two ways with respect to student choice. First, it may impact on the valuation of costs and subsidies (the economic perspective), and second, it may work through the influence of peers.

Concerning the valuation of costs and benefits, it is likely that (potential) students value tuition fees and student support in relation to their actual income situation and that of their parents. The concept of reference levels in conjunction with the (economic) principle of diminishing sensitivity<sup>3</sup> in relation to student choice means that the marginal (dis)utility of tuition fees and grants is lower for students from affluent backgrounds than for students from poor backgrounds, because students will take their actual income (and that of their family) as a reference for the evaluation of present and future costs and benefits of attending higher education. For example, a poor student may regard €1000 in tuition costs to be expensive whereas a rich student would consider it as being cheap, because the reference income to which the fees or grants are compared is much lower in the first case than in the second. Consequently, tuition fees are likely to have a stronger negative impact on the enrolment decisions of low income students than of high income students, whereas grants and scholarships are more likely to persuade poor students to enrol in higher education than rich students. Moreover, the status quo bias tells us that – in the case of tuition fees and student support – students are likely to be sceptical about changes. Following this way of reasoning, poor students are more likely to object to the introduction or increase of fees, or to a decrease in grants and scholarships.

With regard to reference levels, students are also likely to take into account the position and opinion of their peers, such as parents, relatives, friends, classmates, and teachers and counsellors at school/college in making their study-related choices. The reference level for high socio-economic status students may be higher levels of education, and not attending higher education may be regarded as a loss. However, for lower socio-economic status students the reference may be lower levels of education, and not attending higher education may be regarded as being normal. In this view, it is expected that students are more likely to attend higher education if their peers are positive about (encourage) such a decision or if those peers also attend or have attended college or hold career positions that require higher qualifications. Entering higher education will then be regarded as a ‘smaller step’. Consequently, it can be expected that children from groups that are traditionally under-represented in higher education will have more difficulties in taking the step into higher education than other students. In addition, if a student’s peers also take up (or took up) study loans, then that student is also more likely to borrow.

### *5.2.2. Loss Aversion and the Endowment Effect*

Loss aversion refers to the situation where people are significantly more averse to losses than they are attracted to gains of the same size (The Royal Swedish Academy of Sciences 2002). In terms of financial incentives related to student choice, loss aversion predicts that students will be more deterred by the costs of study, like tuition fees and loans, than they will be attracted by subsidies, like grants, scholarships, future income, labour market opportunities and status. If we assume that students attach greater value to costs (losses) than to subsidies (gains), then it can be expected that they are less likely to attend high cost institutions even when they are financially compensated.

Loss aversion not only suggests that tuition fees have a greater negative impact than grants have a positive impact on enrolment decisions, but also that the risks of taking up loans are overestimated while the future benefits of a degree are underestimated, leading to aversion of debt. Based on the phenomena of reference levels and diminishing sensitivity, one can expect that the reluctance to take up student loans will differ across various socio-economic groups. The experienced displeasure from taking up a loan is stronger for students from lower income groups compared to richer students.

As a special case of loss aversion, the endowment effect relates to the phenomenon that people experience a greater disutility when giving up a good that they consider to belong to their property (endowment) than they experience pleasure from buying or adding the same item to their endowment. In the case of higher education, the endowment effect manifests itself if students are to give up the 'basic' or 'natural' right to free higher education or the right to maintenance grants. The overreaction connected with the endowment effect can for example be encountered in countries which have traditionally had free higher education and where the introduction of tuition fees is proposed.

### *5.2.3. Intertemporal Choice and Self-control*

Intertemporal choice concerns decisions in which the costs and benefits are spread out over time. It refers to the phenomenon that people attach relative higher value to short-term benefits and costs than to long-term ones (using very high discount rates). Though time preferences show high discount rates, the discount rates decrease when time delays increase. In addition, because people treat losses differently from gains, the discount rate for (future) gains is higher than for (future) losses. Finally, discount rates vary inversely with the size of the gains or losses. Thus, in contrast to the standard economic assumption of time-consistent preferences and constant discount rates, this implies that students have present-biased preferences. Consequently, in calculating the net present value of higher education, students are expected to overestimate present costs (and benefits) and to underestimate the future benefits of higher education. This probably leads to a reduced likelihood to invest in higher education. The intertemporal choice phenomenon for students is enhanced by the certainty about short-term (present) costs/benefits and the uncertainty about the long-term (future) benefits/costs. Furthermore, because present costs loom larger for poor students than for rich students (reference levels and diminishing sensitivity), it can be expected that intertemporal choice effects are larger for poor than for rich students. This, however, may also imply that low socio-economic status students would be more willing to borrow because of the high discount rate being used, except if borrowing is perceived as a current loss.

Based on these considerations, students are likely to prefer the direct benefits of part-time work over taking up loans. From a lifetime perspective, jobs may delay students in their studies and thus reduce their total time in the labour market as graduates, which would considerably reduce their lifetime earnings.

Self-control is a specific case of intertemporal choice which refers to the idea that people do not trust the way they will behave in the future. Therefore, they

voluntarily restrict their range of (future) choices. In the case of higher education, the self-control mechanism forces students to reduce the likelihood of failure to get a degree and to find a well-paying job after graduation. Consequently, students may decide not to enter higher education at all or they may choose to enrol in less expensive courses, shorter studies or programmes that are perceived as being more easy to study, and they may avoid for example medical, science and engineering programmes. In addition, the self-control mechanism also predicts that students may take part-time jobs rather than student loans in order to limit the potential repayment difficulties.

#### *5.2.4. Mental Accounting*

The economic principle of fungibility states that money does not have labels attached to it and that money in one account can be spent just as easily in another (substitutability). However, the concept of mental accounting points to the fact that people place different components of wealth in different categories using different rules for dealing with different resources and expenses. In the case of student choice, mental accounting may be observed in students' aversion to debt. Taking up student loans implies that students postpone and spread (part of) the costs of higher education in the future and thus spend money from their 'future income account'. Drawing money from the future income account is perceived as the most 'painful' compared to other types of accounts. Consequently, all students will be reluctant to take up loans. But again, in conjunction with the reference effect and diminishing sensitivity, debt aversion due to mental accounting will be greater for students from disadvantaged backgrounds.

In addition, higher education is not likely to be a top priority for individual spending, because it is not regarded as a primary need; many of its benefits only show up after graduation; students are uncertain about completing a degree and getting a well-paid job; and education is not a tangible product but rather an 'experience good'. As such, higher education can be regarded more as a luxury good, for which people may be less likely to make financial investments or sacrifices. Again, the mental accounting reactions may be stronger for students from lower socio-economic backgrounds than for students from higher socio-economic backgrounds.

Altogether, the behavioural economic perspective suggests that students from lower socio-economic backgrounds are likely to value financial incentives/consequences related to study choices differently than students from higher socio-economic backgrounds. These expectations have been translated into a number of hypotheses concerning the relationships between the socio-economic backgrounds of students and their perceptions about financial incentives and the actual study choices they make. Both categories of relationships have been tested empirically, of which the methodology and results will be explained in the following section.

## 6. EMPIRICAL TESTING OF THE NEW PERSPECTIVE

The empirical testing of whether the new approach makes sense in the area of student choice focuses on the question of whether students from different socio-economic backgrounds have different perceptions about financial incentives and, if so, whether this makes a difference in the study-related choices they make.

The empirical analysis concentrates on students in the Netherlands, which provides a manageable and interesting case. Dutch students have to pay tuition fees, most students are eligible for basic grants, about one-third of the students receive means-tested supplementary grants and practically all students can take up student loans if they want to. In addition, it is relatively easy to get involved in part-time jobs. Finally, because the Netherlands is a relatively small country, there is a high level of transparency (and uniformity) with regard to programmes, levels, quality of degrees, entrance requirements, tuition fees, etc.

The sample used for the empirical analysis was drawn from an existing database that includes a number of variables that indicate students' perceptions about financial incentives. It concerns the 1997 cohort of new entrants from a larger study called the "Determinants of Participation in Higher Education" (DHO) study. This is the cohort that entered higher education just after the introduction of the performance-related grant in 1996 which attached greater financial risks to studying. Therefore this student cohort can be expected to be very conscious of the costs and benefits of higher education and as a result be more likely to show relatively clear signs of price sensitivity compared to other cohorts. To create a relatively homogeneous research population and to prevent other possible factors from influencing the relationships between socio-economic background and students' perceptions of financial incentives, the research sample includes only new entrants, excluding mature students and entrants with previous higher education experience. After these corrections, the sample included 1974 valid cases (a more detailed sample description is provided in Vossensteyn 2005: Appendices).

To test the hypothesis that socio-economic background impacts upon students' perceptions about financial incentives and as such on the actual choices students make, we have drawn up an explanatory model distinguishing between socio-economic background variables, control variables (that have proved their importance in student choice literature), price perception variables and student choice variables (figures 5 and 6). These include the following (operationalised) variables.

### *Independent Socio-economic Background Variables*

- Parental education: highest attained educational qualification of one of a student's parents.
- Parental income: net monthly family income.
- Ethnicity: autochthon versus allochthonous students.<sup>4</sup>

*Independent Control Variables*

- Gender: male or female.
- Entrance qualification: the highest qualification obtained by the students.
- Grade point average: the average scores of students in their final secondary education exams.
- Extrinsic motivation: the extent to which students pursue a higher education degree for getting a good paying prestigious job, providing leadership, power and work autonomy.

*Dependent/Independent Price Perception Variables*

- Risky investment: whether students find higher education a financially risky investment.
- Sensitivity to tuition change: whether students can be attracted to science and engineering programmes through tuition measures.
- Importance of grants: whether students would study if grants were not available.
- Expected future income: the monthly net income students expect to earn after graduation (starting salary and top salary).
- Willingness to borrow: the maximum amount of debt students are prepared to accumulate for obtaining a higher education degree.

*Dependent Student Choice Variables*

- Living situation: whether students live with their parents or away from home.
- Taking up loans: if students take up official study loans (yes/no) and how much they take.
- Involvement in part-time work: if students have a part-time job besides study, how much they earn per month and how many hours they spend on their job per week.
- Type of programme: whether students choose study programmes that take longer (or shorter) nominal and/or actual time to graduation and programmes that are perceived as being more difficult (or easier) (science and engineering versus other programmes, and university programmes versus professional higher education programmes).

The statistical analysis was carried out in two successive stages. In the first stage, it was explored whether students from lower socio-economic backgrounds have different perceptions about financial incentives than students from higher socio-economic backgrounds, given a number of control variables. In the second stage, it was explored whether differences in socio-economic backgrounds and in perceptions about financial incentives lead to variation in actual student choice.

Within each of the two stages three main statistical techniques were used: simple bivariate analysis, multiple regression models for testing the full model, and finally structural equation modelling (SEM) to explore whether the perception variables actually have the intermediary role as is assumed in our theoretical model. The latter technique tests whether the full theoretical model fits with the data being used and differentiates between the direct and indirect effects within the model. As such, the role of intermediary variables, in our case students' perceptions, can be made transparent. The model tested is depicted in figure 6. This model concerns our basic model in which the direct effects from the background and control variables on the dependent student choice variables are excluded. Excluding those direct effects provides the strongest test for our hypotheses by assuming no direct effects – only indirect effects – between the socio-economic background variables and the dependent variables. The main outcomes of these analyses are presented in the following sub-sections.

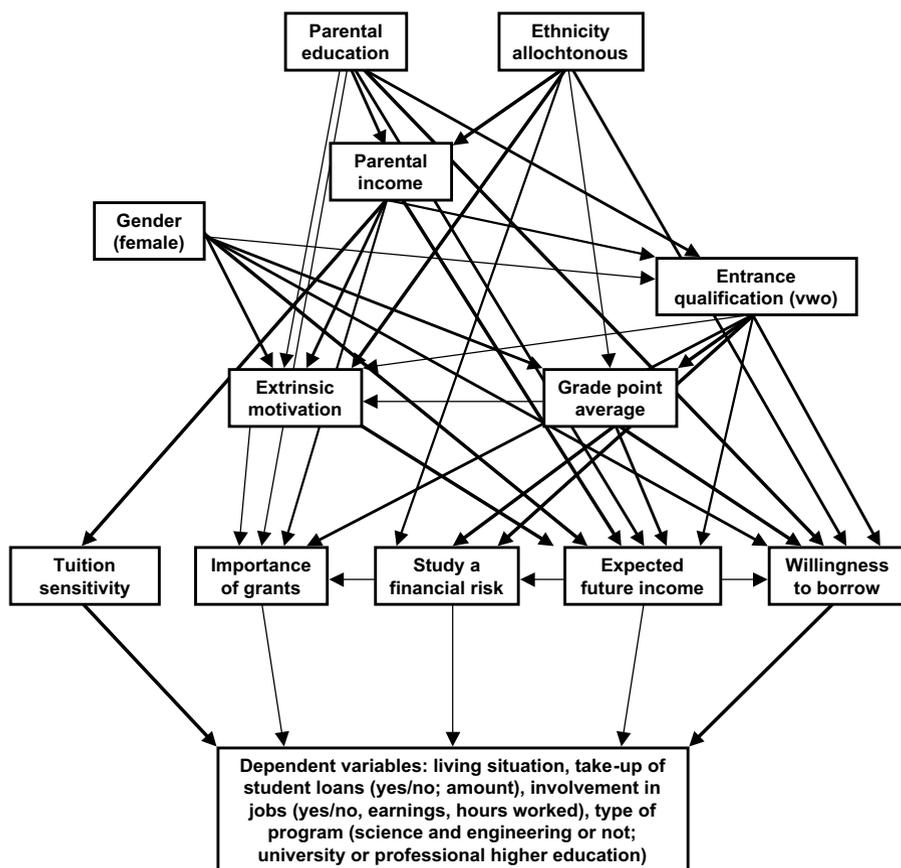


Figure 6. The basic model for structural equation analysis

### *6.1. Perceptions About Financial Incentives*

In relation to the question to what extent do students from various socio-economic backgrounds differ in their perceptions about financial incentives, the bivariate analysis indicates a number of (strong) significant relationships (see Vossensteyn 2005: Appendices). Students with higher educated parents and from higher income families are less likely to regard higher education as a risky financial investment, they find grants and scholarships less important for entering higher education, they expect higher future wages, and they have higher debt tolerance. These findings confirm the expectations based on our theoretical model. Ethnicity has more ambiguous relationships with the perceptions about financial incentives. In some cases, allochthonous students confirm our expectations in the sense that they regard higher education as more risky and find grants more important than autochthon students. However, in contrast to our expectations, allochthonous students are willing to borrow substantially more than autochthon students. Concerning the other perception variables, there are no differences between the ethnic groups.

The multiple regression analysis showed that socio-economic background variables together with the control variables form a model that is significantly related to students' perceptions about financial incentives (the major results are presented in Vossensteyn 2005: Appendices). However, the model did not prove to be significant in relation to students' sensitivity to tuition incentives.<sup>5</sup> Overall, socio-economic background characteristics prove to be significantly related to the perceptions students have about financial incentives. Parental education (on average) shows the strongest relationship, closely followed by parental income, suggesting that students from families with higher educated parents and higher family income levels prove to be less price sensitive in their perceptions compared to students from families with lower educated parents and lower income levels. Students from higher income levels regard higher education investment as less risky; they find grants less important, expect higher future income levels and have higher debt acceptance levels. These findings sustain our theoretical model and do not falsify our hypotheses. However, ethnicity has a more ambiguous position concerning the price attitudes of students. Allochthonous students do not vary significantly from autochthon students in their view of higher education as a risky financial investment. They even expect higher future income levels than autochthon students and have a higher debt tolerance. The regression results show that most control variables are significantly related to the expected future income and willingness to borrow. But there are less strong relations with perceiving study as a financial risk, tuition sensitivity and the importance of grants.

Finally, the SEM analysis shows that our theoretical model provides a relatively good fit with the data from our sample (the major statistical results are summarised in Vossensteyn 2005: Appendices). Thus our hypothesised relationships between socio-economic background and students' perceptions about financial incentives make sense. As a result, we cannot reject our hypotheses, except for the one on tuition sensitivity as explained in note 5. In addition, the analysis shows only a small standardised effect for parental income on tuition sensitivity (see Vossensteyn 2005: Appendices). The SEM analysis shows that parental education, gender and entrance

qualification have the strongest influences on students' perceptions. Parental education appears to have some indirect effects, which go through parental income, indicating the strong correlations often found between these two variables (for further details see Vossensteyn 2005).

Altogether, it can be stated that socio-economic background generally has an impact on students' perceptions about financial incentives. Students from lower socio-economic backgrounds do worry more about finances, they are more debt averse, they attach higher importance to grants, and expect lower future earnings. Whether these differences in perceptions about finances also lead to differences in student choice is explored in the next section.

## *6.2. Financial Incentives, Perceptions and Actual Student Choice*

With regard to the question to what extent do socio-economic background and perceptions about financial incentives lead to actual differences in student choice, the bivariate analysis indicates that socio-economic background variables in many cases are significantly related to the choices students make, except for students' borrowing behaviour (Vossensteyn 2005: Appendices). Students from higher educated and higher earning parents more often live away from home and are involved in part-time work to a lesser extent, just like autochthon students work less than allochthonous students. According to our expectations, students from higher educated parents also more often choose science and engineering and university programmes. As expected, allochthonous students are significantly less likely to choose science and engineering programmes. But different ethnic groups do not differ in choosing academic or higher professional programmes, which is in contrast to our expectations.

The bivariate relationships between students' perceptions about financial incentives and actual study choices are disappointing in the sense that only a few significant relationships can be found. Consistent with expectations is that students who indicate higher debt tolerances are more likely to live away from their parents, they borrow more often (and higher amounts), they are less involved in part-time work, and they more often choose science and engineering or university programmes. Also students who expect higher future earnings are more likely to live away from their parents, and to enter science and engineering or university programmes. Finally, students who find grants important for enrolling in higher education more often take up study loans, which does not support our hypotheses. But the analysis (Vossensteyn 2005: Appendices) also shows that many bivariate relationships between perception variables and the dependent student choice variables are insignificant.

Most of these findings are also reflected in the outcomes of the multiple regression analysis, except that the willingness to borrow loses its significance in relation to students' involvement in part-time work and choosing science and engineering. However, the availability of grants becomes more important in relation to actual study-related choices. It is striking to see that expected future income hardly plays a role in relation to student choice.

Finally, the SEM analysis shows that the theoretical model in all cases fits very well the dataset being used, suggesting that the model including the perception variables makes sense. If we look at the standardised effects within the SEM model (Vossensteyn 2005: Appendices), parental education proves to be the strongest explanatory socio-economic background variable followed by ethnicity. Parental education also has an indirect effect on students' living situation, the amount of loans taken up, the number of hours worked and choosing university or not. This indirect effect mainly goes through parental income and entrance qualification (for more details see Vossensteyn 2005). As for the control variables, gender, entrance qualification, extrinsic motivation and grade point average show substantial effects on most of the student choice variables. From the perception variables, the willingness to borrow and the importance of grants have substantial effects on most of the variables, except for choosing science and engineering and the number of hours worked. Students who perceive study as a financial risk less often have jobs and, if they have, they earn less. This is contrary to our expectations. Again, students' future income expectations are hardly found to be related to student choice.

All in all, although the SEM analysis showed that the theoretical model fits very well with the data, students' perceptions about financial incentives were found not to play a major role in the final choices students made. This is seen in both the multiple regression analysis and the SEM analysis. Consequently, students' perceptions do not prove as important as expected in the theoretical model. This underpins the findings of other research that Dutch students prove to be rather unresponsive to price incentives. This may partly be explained by the fact that Dutch higher education has a relative homogeneous structure with respect to its tuition and student support structures and that developments in this area have a relatively incremental character.

## 7. CONCLUDING REMARKS

Cost-sharing is a phenomenon gaining attention in many countries, including the Netherlands which provides an excellent example of the effects of cost-sharing. Through increased tuition fees, a gradual shift away from basic grants for all students to loans, and means-tested grants for a limited number of (needy) students, students and their families have to cover an increasing part of the burden of higher education costs. These tendencies often encounter opposition and raise a lot of discussion because such developments are argued to have negative effects on access to higher education, particularly for those from disadvantaged backgrounds.

Regardless of all debates, no single study has been able to show that these developments have harmed access for disadvantaged students. Student numbers have increased, despite the demographic decline in the relevant age group. Enrolment patterns have not changed very much in terms of the proportions of students coming from different socio-economic backgrounds. The introduction of study progress requirements seems to have had only temporary and minor effects in the sense that for one or two years some potential students postponed enrolment in higher education and some chose studies perceived as being easier to complete.

Furthermore, increased cost-sharing does not seem to be related to the declining interest in science and engineering courses. Finally, recent research on the question of whether financial incentives have an indirect effect on student choice through their perceptions about financial incentives has indicated that students from different socio-economic backgrounds have substantially different price perceptions. Students from lower socio-economic backgrounds are more sensitive to financial incentives, expect lower future earnings and are less willing to borrow than students from higher socio-economic backgrounds. However, these differences in perceptions do not lead to strong variation between these groups in the actual study choices they make, except for the willingness to borrow and the importance of grants. The limited impact of perceptions about financial incentives on actual student choice underpins the findings of previous research that Dutch students prove to be rather unresponsive to price incentives. However, the relative importance of the willingness to borrow and its positive relationship with enrolment in science and engineering seem to be an interesting phenomenon in the Dutch policy context. Only a minority of students (under 20%) take up official student loans and interest in science and engineering is decreasing. If the willingness to borrow can be increased, for example through emphasising the low financial risks, this may also have a positive impact on the number of students entering science and engineering.

Altogether, research on student choice and enrolment behaviour in the Netherlands indicates that particularly non-financial factors – such as parental education, motivation, encouragement from peers, future chances in the labour market – are more important than financial incentives. Maybe such price unresponsive behaviour is due to the relative homogeneous structure of tuition and student support and to the incremental character of the process of cost-sharing in the Netherlands as well as to the fact that the relative price of college is still not that high in the Netherlands.

## NOTES

- 1 From 1 January 1991 onwards, all students receiving student support were granted a public transport pass (Openbaar Vervoer Studenten Kaart, OVSK). Henceforth, all students could travel for free on all types of public transport. In exchange, their monthly basic grant was reduced by NLG 62.50. This solved the problem of a budget deficit for students living away from home. Until then, only students living at home received an allowance for travelling compensation. Because the OVSK was a huge success in terms of student travelling, the contract with the public transport companies had to be changed; this happened in 1994. Since then, students have to choose between a public transport pass that is valid on working days or one that is valid during weekends. On the days the pass is not valid, it still provides a 40% discount on all public transport fares. Even though the transportation opportunities for students were limited, the basic grant was further reduced because the contract between the Ministry and the public transport companies had become more expensive.
- 2 The grants for first-year study were postponed for one year and those for subsequent years of study for four to seven years, depending on the time to graduation.
- 3 Diminishing sensitivity reflects the idea that the marginal value attached to either gains or losses decreases with a growth in total wealth (endowment). This predicts that the effects on an individual's wellbeing are perceived to be greater for changes close to one's reference level compared to changes further away from it.
- 4 Allochthonous students are students whose parents have a foreign non-Western nationality, which implies that in our definition the autochthon students include native students as well as foreigners

with Western nationalities, such as those from EU countries, Scandinavia, Australia, Canada, the US, etc. Generally about 15% of the allochthonous students are foreign students from non-Western countries.

- 5 This finding can be related to the fact that tuition sensitivity could only be tested in the situation where students are encouraged to choose science and engineering programmes through tuition incentives. The problem is compounded by prejudice against these programmes as being difficult, taking a lot of time and being for males rather than females. It could only be tested for a limited group of students (328) who qualified for science and engineering but who had not yet chosen their course of study.

## REFERENCES

- Biermans, M., D. de Graaf, U. de Jong, M. van Leeuwen and I. van der Veen. "Leengedrag van studenten in het hoger onderwijs, SEO-SCO." In CUNS. *Leren investeren; investeren in leren, Een verkenning naar stelsels van studiefinanciering*. Bijlagen bij het rapport van de Commissie Uitgangspunten Nieuw Studiefinancieringsstelsel, Woerden: Sterprint Grafische Partners BV, 2003, 151–308.
- Canton, E. and F. de Jong. "The Demand for Higher Education in the Netherlands, 1950–99." CPB Discussion Paper 12, Den Haag: CPB Netherlands Bureau for Economic Policy Analysis, 2002.
- CBS StatLine. *Statistics Netherlands*. Voorburg/Heerlen: Statistics Netherlands, 2004, <http://www.cbs.nl>.
- De Jong, U., M. van Leeuwen, J. Roeleveld and M. Zijl. *Deelname aan hoger onderwijs, Toegankelijkheid in beweging, Kiezen voor hoger onderwijs 1995–2000*. Ministerie van Onderwijs, Cultuur en Wetenschappen, Beleidsgerichte studies hoger onderwijs en wetenschappelijk onderzoek 81, Den Haag: Sdu, 2001.
- De Jong, U., D. Webbink, H. Meulenbeek, M. Voorthuis, F. Haanstra and F. Verbeek. *Uitstel of afstel? Een onderzoek naar de achtergronden en motieven om niet direct verder te studeren*. Stichting voor Economisch Onderzoek (SEO)/SCO-Kohnstamm Instituut, Universiteit van Amsterdam, Amsterdam, 1996.
- De Jonge, J.F.M., L. Huvers, D.M. Ligtermoet and A. Ziegelaar. *Effectiviteit en efficiëntie van de Wet op de studiefinanciering*. Leiden: Research voor Beleid, 1991.
- De Regt, A. *Geld en gezin: Financiële en emotionele relaties tussen gezinsleden*. Amsterdam: Boom, 1993.
- De Vos, K. and P. Fontein. *Leengedrag en leenmotieven WSF-studerenden*. Eindrapport, Tilburg: Economisch Instituut Tilburg (EIT), 1998.
- Elster, J. "Emotions and Economic Theory." *Journal of Economic Literature* 36 (1998): 47–74.
- Felsö, F., M. van Leeuwen and M. van Zijl. *Verkenning van stimulansen voor het keuzegedrag van leerlingen en studenten*. Amsterdam: Stichting voor Economisch Onderzoek der Universiteit van Amsterdam (SEO), 2000.
- Hammond, K.R. "Coherence and Correspondence Theories." In Connolly, T., H.R. Arkes and K.R. Hammond (eds). *Judgement and Decision Making: An Interdisciplinary Reader*. Cambridge: Cambridge University Press, 2000, 53–65.
- Heller, D.E. "Student Price Response in Higher Education: An Update to Leslie and Brinkman." *Journal of Higher Education* 68.6 (1997): 624–659.
- Hupe, P.L. and A.I.T. van Solm. *Het Zoetermeerse labyrint*. Beleidsgerichte studies Hoger onderwijs en Wetenschappelijk onderzoek 55, Den Haag: Sdu Grafisch Bedrijf, 1998.
- IBG (Informatie Beheer Groep). *Studiefinanciering hoger onderwijs, maandbedragen*. Groningen: IBG, 2004, <http://www.ib-groep.nl>.
- James, R. and C. McInnis. "Equity Policy in Australian Higher Education: A Case of Policy Stasis." Paper presented at the 16th Annual CHER Conference, Porto, 4–6 September 2003.
- Johnstone, D.B. and P. Shroff-Mehta. *Higher Education Finance and Accessibility: An International Comparative Examination of Tuition and Financial Assistance Policies*. Center for Comparative and Global Studies in Education, Graduate School of Education, University of Buffalo, State University of New York, Buffalo, 2000.
- Kahneman, D. and A. Tversky. "Prospect Theory: An Analysis of Decision Under Risk." *Econometrica* 47 (1979): 263–291.
- Kahneman, D. and A. Tversky. *Choices, Values, and Frames*. New York: Cambridge University Press, 2000.

- Kaiser, F. and Hans Vossensteyn. "Access in Dutch Higher Education: Policies and Trends." In Tapper, Ted and David Palfreyman (eds). *Understanding Mass Higher Education, Comparative Perspectives on Access*. London: RoutledgeFalmer, 2005, 92–120.
- Kerstens, L. and J. de Jonge. *De leenmotieven van studenten bij banken*. Leiden: Research voor Beleid, 1999.
- Leuven, E., H. Oosterbeek and B. van der Klaauw. "The Effect of Financial Rewards on Students' Achievement: Evidence From a Randomized Experiment." Scholar Working Paper Series 38/03, Amsterdam: University of Amsterdam, 2003.
- Mattens, V., Ph. Oomen and M. Veltman. "Leengedrag studenten, TNS NIPO." In CUNS, *Leren investeren; investeren in leren, Een verkenning naar stelsels van studiefinanciering*. Bijlagen bij het rapport van de Commissie Uitgangspunten Nieuw Studiefinancieringsstelsel, Woerden: Sterprint Grafische Partners BV, 2003, 101–150.
- McPherson, M.S. and M.O. Schapiro. "Demand for American Higher Education: Prices, College Attendance, and Federal Policy." In Miller, P.W. and J.J. Pincus (eds). *Funding Higher Education: Performance and Diversity*. Canberra: Department of Employment, Education, Training and Youth Affairs, 1997, 13–23.
- Ministerie van OCW (Onderwijs, Cultuur en Wetenschappen). *Flexibele studiefinanciering, Een stelsel dat past*. Den Haag: Sdu Grafisch Bedrijf, 1999.
- Ministerie van OCW (Onderwijs, Cultuur en Wetenschappen). Annual announcement of tuition levels. Den Haag: Sdu, various years, <http://www.ocw.nl>.
- Oosterbeek, H. and D. Webbink. "Enrolment in Higher Education in the Netherlands." *Economist* 143.3 (1995): 367–380.
- Rabin, M. "Psychology and Economics." *Journal of Economic Literature* XXXVI (1998): 11–46.
- The Royal Swedish Academy of Sciences. *Foundations of Behavioral and Experimental Economics: Daniel Kahneman and Vernon Smith, Advanced Information on the Prize in Economic Sciences 2002*. Stockholm: Kungl. Vetenskapsakademien, 2002.
- Sippel, R. "An Experiment on the Pure Theory of Consumer Behaviour." *Economic Journal* 107 (1997): 1431–1444.
- Sterken, E. "De collegegeld-gevoeligheid van deelname aan het WO." *Economisch Statistische Berichten* 10 May (1995): 454–456.
- Thaler, R.H. *Quasi Rational Economics*. New York: Russell Sage Foundation, 1991.
- Thaler, R.H. *The Winner's Curse: Paradoxes and Anomalies of Economic Life*. Princeton: Princeton University Press, 1992.
- TK. *Rijksbegroting, Begroting VIII, Onderwijs, Cultuur en Wetenschappen 2004*. Tweede Kamer der Staten-Generaal. Den Haag: Sdu Uitgevers, 2003.
- UCAS. *Facts and Figures* Cheltenham: Universities & Colleges Admissions Service, 2003, <http://www.ucas.com/figures/sas>.
- Vossensteyn, Hans. *Student Financial Assistance in the Netherlands. A Contextual Report*. Enschede: CHEPS, 1997.
- Vossensteyn, Hans. "Where in Europe Would People Like to Study? The Affordability of Higher Education in Nine Western European Countries." *Higher Education* 37 (1999): 159–176.
- Vossensteyn, Hans. "Shared Interests, Shared Costs: Student Contributions in Dutch Higher Education." *Journal of Higher Education Policy and Management* 24.2 (2002): 145–154.
- Vossensteyn, Hans. "Kostenteilung in den Niederlanden, Finanzielle Situation der Studierenden, Studiengebühren, Studienförderung und Reaktionen der Betroffenen." In Nagel, B. (ed.). *Studiengebühren und ihre soziale Auswirkungen, Eine Analyse von Daten aus de USA, England, Schottland, den Niederlanden, Österreich, Australien und Neuseeland*. Baden-Baden: Nomos Verlagsgesellschaft, 2003, 136–151.
- Vossensteyn, Hans. *Perceptions of Student Price-Responsiveness: A Behavioural Economics Exploration of the Relationships Between Socio-Economic Status, Perceptions of Financial Incentives and Student Choice*. Enschede: CHEPS, 2005.

PEDRO TEIXEIRA, MARIA JOÃO ROSA AND  
ALBERTO AMARAL

A BROADER CHURCH?  
EXPANSION, ACCESS AND COST-SHARING IN  
PORTUGUESE HIGHER EDUCATION

1. INTRODUCTION

The literature on higher education used to postulate that we should expect a much more diversified student population once a system of higher education grows in size, and particularly when it moves from an elite to a mass system. There was also the presumption that increasing enrolments would go hand-in-hand with a decreasing percentage of the wealthy high-ability type of student and an increase in the proportion of students from disadvantaged backgrounds. This would have the combined effect of easing competition for higher education by making access easier for students from backgrounds of lower social and cultural capital and allowing them to realise that a higher education degree is not only possible but increasingly necessary to enhance significantly their professional and income prospects. However, empirical evidence has challenged these expectations (see, among others, Barr and Low 1991; Forsyth and Furlong 2000; Reutenberg and Svensson 1987; Taubman and Wales 1972). Several systems that experienced a sustained and rapid expansion, in numbers and types of institution, struggled to increase the proportion of students from disadvantaged backgrounds and/or lower cultural capital. The evidence indicates that middle class cohorts exploited the expansion of the system.

The Portuguese system of higher education has experienced a rapid expansion from the mid-1980s, far more concentrated in time than most of its European counterparts. With the higher education system traditionally reserved for a small number of bright middle and upper class students, one could reasonably expect the expansion to produce a much more diversified student body. However, the expansion of the Portuguese higher education system went together with increased cost-sharing, either directly through the increase of tuition fees in the public sector (Teixeira, Rosa and Amaral 2004), or indirectly as a large part of the expansion was supported by a rapidly growing private sector (Amaral and Teixeira 2000) which charged much higher tuition fees than the public sector. Hence, increased cost-sharing complicated the picture of expansion, creating additional financial pressure on disadvantaged students and challenging wider access policies.

In this chapter we start by reviewing the process of expansion of the system and analysing it to see if it has become more equitable in terms of gender, socio-economic background, diversification and regional distribution. Then we concentrate

on the students' socio-economic background dimensions by presenting the growth of student support schemes, in both the public and private sectors. We assess how far the funds allocated for support schemes have kept pace with the expansion of the system and the rising level of tuition fees. We hope that this will help in our understanding of the growth of the composition of the student body in terms of socio-economic background, and to what extent support schemes have promoted or hampered the diversification of the student population.

The analysis will use the model presented in figure 1 that considers the composition of the Portuguese higher education student body as the dependent variable and distinguishes a set of independent variables, grouped in four main categories (state steering, higher education institutions' organisational strategies, demography and economic issues), that supposedly affects the dependent one.

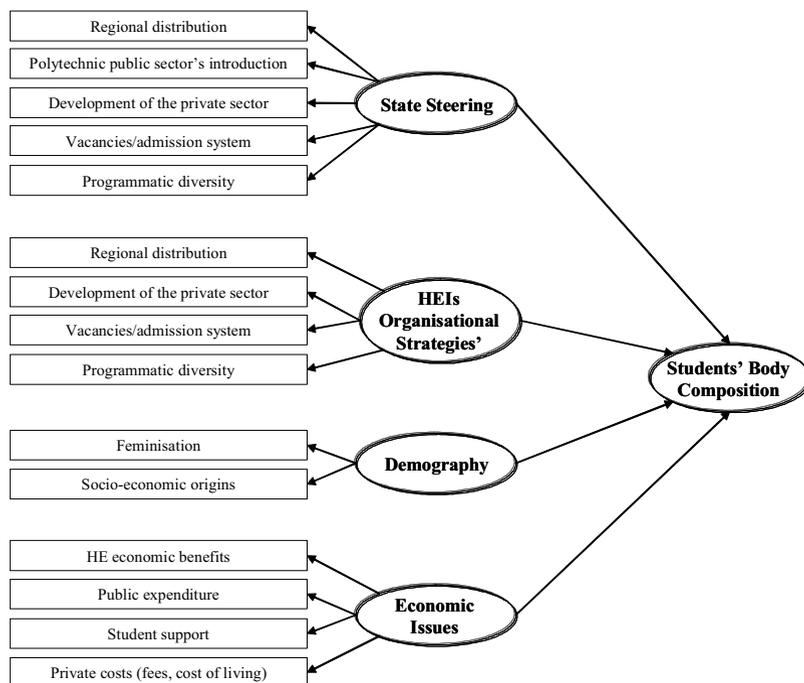


Figure 1. The analytical model

It is important to stress that this analysis will be based on the available data on the Portuguese higher education system which are neither very recent nor systematic. Therefore it necessarily imposes some limitations on the conclusions drawn. This chapter should be viewed as an exploratory study of the issues of expansion, access and cost-sharing in Portuguese higher education.<sup>1</sup> The data refer only to traditional students enrolled in full-time degrees, since these are by far the overwhelming majority of Portuguese higher education students. In this group the

limitations in terms of data are also less stringent allowing a better picture of the situation. It is also important to mention that the ethnic issue will not be considered in this analysis because it is not relevant in terms of the students' body composition.

## 2. STATE STEERING AND HIGHER EDUCATION INSTITUTIONS' ORGANISATIONAL STRATEGIES

Traditionally, Portugal has had very low levels of literacy, resulting in a poorly qualified labour force. At the turn of the twentieth century, when Northern Europe had largely achieved universal basic literacy, around 90% of the Portuguese population was illiterate (Reis 1993). This was a poor result even *vis-à-vis* its Southern European counterparts. The twentieth century did not bring rapid change to this situation and when, during the post-war decades, most European countries were developing mass secondary and later higher education systems, Portugal was still struggling to achieve a reasonable level of basic literacy. From the 1960s onwards the situation started to change more rapidly and the country was able to address part of its qualifications deficit. In 1960 the level of illiteracy was still very high and, although it declined sharply thereafter, a large percentage of the population today still has only basic formal education or no literacy at all (see table 1).

*Table 1. Level of literacy and degree completion of the Portuguese population (% of population 15–64 yrs)*

<i>Level</i>	<i>1960</i>	<i>1970</i>	<i>1981</i>	<i>1991</i>	<i>2003</i>
Illiterate	61.4	38.1	27.5	16.1	64.5 <sup>a</sup>
Basic	22.5	49.6 <sup>a</sup>	56.6 <sup>b</sup>	56.5 <sup>a</sup>	
Secondary	na	na	13.2 <sup>b</sup>	19.6 <sup>a</sup>	24.7 <sup>b</sup>
Tertiary	0.9	1.6 <sup>a</sup>	2.8 <sup>b</sup>	6.1 <sup>a</sup>	10.8 <sup>b</sup>

<sup>a</sup>Completed or partially completed degree; <sup>b</sup>completed degree

Source: Barreto 1996; INE various years

In this context of poor qualifications it is not surprising that the Portuguese system of higher education has been traditionally an elitist one, with very limited access (see Nunes 2000). By the early 1970s important changes occurred in the Portuguese higher education system as a major reform increased the number of public institutions, widening access to higher education, especially through the establishment of universities outside the major cities (Teixeira, Amaral and Rosa 2003). Also in the 1970s several polytechnic institutes were created thus establishing a binary system that mirrored wider European trends (Teichler 1988). These polytechnic institutions were vocationally oriented, with less emphasis on research, bringing education and the labour market closer together. The polytechnics were supposed to have a marked regional character, which was translated into the establishment of access quotas reserved for students from the area of influence of each institution.

The pressures for rapid expansion accelerated after the democratic revolution in April 1974. In the aftermath of the revolution, the promise of a more egalitarian society created an explosive demand for higher education. This placed a severe strain on working conditions at many institutions, and eventually the Ministry of Education introduced a system of *numerus clausus* to control the expansion, which still remains in place today.

The other major structural change in the higher education system was the establishment of a non-public sector of higher education. This started very slowly, with the establishment of the Portuguese Catholic University in 1971 and the second private university being allowed to initiate operations only in 1979 (Universidade Livre). However, the *numerus clausus* system, by keeping an increasing number of candidates out of higher education without any acceptable alternative, developed very strong political and social pressures in favour of broadening access to higher education, which forced the mainstream political parties to agree that increasing the rates of participation in higher education should be given priority on the political agenda. At the time, most policy makers considered that the government had neither the time nor the means to achieve the *promised* goal of raising the *numerus clausus* to a level capable of meeting the growing demand for higher education services. This created a golden opportunity for the development of private institutions that gave the private sector a decisive role in the process of expansion of higher education (see table 2).

Table 2. Growth of enrolments, total and by sub-sector<sup>2</sup>

	1971		1981		1991		1996		2003	
	No.	%	No.	%	No.	%	No.	%	No.	%
Pub uni	43,191	87.3	64,659	76.8	103,999	55.7	147,349	44.1	171,014	43.6
Pub pol	2,981	6.0	12,195	14.5	31,351	16.8	65,377	19.6	109,624	27.9
Priv <sup>3</sup>	3,289	6.7	7,319	8.7	51,430	27.5	121,399	36.3	111,653	28.5
Total	49,461	100.0	84,173	100.0	186,780	100.0	334,125	100.0	392,291	100.0
Enrolment rate % (20–24 yrs)	7.9%		11.0%		24.4%		44.3%		49.6% (census 2001)	

Source: Barreto 1996; Simão, Santos and Costa 2002

The analysis of the growth of enrolments during the last decades confirms the profound transformation of the system during that period and the overall pattern of rapid expansion. The system generally doubled its size each decade, moving steadily away from its original elitist character. Growth accelerated at the turn of the 1990s, becoming a problem for governments from a financial point of view. The growth of enrolments per sector also highlights important structural changes in the student population. Until the early 1980s, public universities overwhelmingly dominated the higher education system. A decade later, the non-university sector was already absorbing a significant proportion of enrolments and at present the vocational public

sector enrolls more than a quarter of the total system and in the private sector the non-university enrolments represent over 50% of that sector. The data also show that after an explosive expansion, the private sector seems to be in recession relative to the public sector.

Another dimension of the elitist nature of the Portuguese higher education system was its traditionally high regional concentration. Until the early 1970s there were no universities outside the three major cities (Lisbon, Porto, Coimbra). The regional expansion of the system started slowly, before becoming an important characteristic from the mid-1980s onwards. Arguably, the main driving force of regional diversification was the development of the polytechnic public sector. Public polytechnics had a strong regional orientation ever since their creation and were always regarded as the primary instrument for providing higher education to the more remote areas of the country. The private sector did not contribute to the regional diversification of the system, contrary to the expectations of many observers. Private institutions invested in the main urban areas of Lisbon and Porto, almost ignoring several important urban areas, namely in the centre region. Hence, the regional distribution of the higher education network is much more concentrated in the private than in the public sector (see table 3).

*Table 3. Distribution of enrolments by region (%)*

<i>Region</i>	<i>1967</i>	<i>1991</i>	<i>2002</i>			
			<i>Public</i>	<i>Private</i>	<i>Total</i>	<i>Population 15–24 yrs</i>
North	18.5	26.8	27.0	37.6	30.0	38
Centre	24.6	18.0	25.7	7.7	20.6	22
Lisbon	56.9	49.6	36.0	52.3	40.6	24
South		4.2	9.2	1.9	7.1	11
Islands		1.4	2.1	0.4	1.7	6

Source: INE various years; Ministry of Education various years

Regional expansion of higher education – especially of the public network – has contributed to decreasing student mobility, as the establishment of new institutions in a region attracts a growing number of candidates living in that region. By the mid-1990s the proportion of the total number of applicants and successful applicants coming from the same region to the institutions located in the two most populated regions (Lisbon and Porto), where the largest and most prestigious schools are mostly located, was above 60%. In contrast, those regions that have smaller populations were still filling about half of their vacancies with candidates from outside their region, though that proportion was generally decreasing. Therefore distance to the institution is one of the main determinants of students' preferences. Where a new institution is established it rapidly becomes the first preference for the largest group of candidates, instead of the more traditional universities (Coimbra, Lisbon, Porto). Since only polytechnics can establish a regional quota in the access

system, one may conclude that regionalisation of demand results mainly from the costs associated with moving to an institution far from home (table 4).

*Table 4. Candidates in higher education institutions by province of residence (%)*

	1989	1994
Candidates from the same province	58.8	62.9

In general, mass systems have a strong need for programmatic diversity to match the preferences of a much more heterogeneous clientele. It is interesting to analyse how the expansion of the system changed the balance among scientific areas. The analysis of the distribution of enrolments suggests that important changes occurred in the system. Originally five major areas comprised the system: sciences, engineering, health sciences, social sciences and humanities, the latter two clearly enrolling the largest groups. The other scientific areas enrolled rather small numbers of students, of a thousand or less (see table 5).

*Table 5. Distribution of enrolments by scientific area (%)*

Area	1971	1981	1991	2001		
				Public	Private	Total
Natural/hard sciences	12.6	6.8	8.1	7.0	3.2	5.9
Engineering	10.1	19.4	18.8	26.2	11.7	22.0
Health sciences	16.3	12.8	6.2	8.3	8.6	8.4
Agriculture	1.8	2.7	2.1	5.0	0.3	3.6
Social sciences	26.2	32.9	35.2	26.0	45.3	31.6
Humanities	24.7	18.6	10.5	7.4	6.3	7.1
Arts*	3.4	3.3	3.4	2.5	4.2	3.0
Religious studies	2.2	0.7	0.4	0.0	0.7	0.2
Education	na	na	11.1	12.8	13.9	13.1
Other	1.6	2.8	4.3	4.8	5.9	5.3

\*Arts includes Architecture

Source: Ministry of Education various years; Simão, Santos and Costa 2002

The process of expansion changed this picture significantly as the increasing popularity of business, economics and law programmes made the social sciences dominant in terms of enrolments, and even more so in terms of graduates. The second major expansion occurred in engineering, especially in the polytechnic sector, with students attracted by the possibility of reasonably safe employment, although in many cases they became managers rather than engineers when employed in small and medium enterprises.

The most significant decline occurred in health sciences, humanities and hard sciences. The last two are less popular due to the unattractive prospects in terms of employment and wages. The low technological complexity of most of the Portuguese firms, only partially compensated for by direct foreign investment, explains the lack of capacity of the private sector to absorb science graduates. Humanities graduates would normally move to teaching careers in non-higher education areas, however, demographic trends and the expansion of teacher training colleges in the vocational sector have made jobs in the educational sector increasingly scarce. The case of health sciences is different and does not correspond to a lack of demand but rather to a convergence of corporate interests among medical schools, ministerial powers and the medical association, all of which contribute to restraining the growth of the number of new medical students and future doctors. There was also a predictable decline in religious studies, fostered by the steady level of secularisation of the Portuguese society.

The distribution of enrolments highlights the interesting but not completely unexpected strategies of the private sector. Most of these institutions aimed at seizing market opportunities created by the obvious incapacity of the public sector to absorb the rapidly growing demand (Teixeira and Amaral 2001). But the private sub-sector specialised largely in degrees with strong demand but low costs (e.g. economics, business/administration and law) which explains also the rise of the social sciences and the decline of the hard sciences and technological programmes. This led to an imbalance in the production of graduates with clear excess in certain areas, especially in the social sciences. Some fields, despite being financially attractive and having unfulfilled demand, were until quite recently less touched by the expansion of the private sector due to tighter specific regulation (particularly health sciences). Overall, these trends suggest important weaknesses in government regulation, allowing an excessive development of social sciences in the private sector and insufficient development of medical programmes in the public sector. It also suggests some deficiencies in the Portuguese labour market, namely in the demand for specialised labour in technological and scientific fields.

### 3. DEMOGRAPHY

#### *3.1. Feminisation*

One of the factors that contributed most to this growth of enrolments was the increasing feminisation of the student population. Women used to have low participation in the labour force and when they did participate they followed the pattern of the Portuguese labour force, that is, they were mostly unskilled and had low levels of schooling. Strong social conventions and some political discrimination prevented women in the upper socio-economic echelons from occupying positions in many distinguished professions such as any career in the judiciary or diplomatic service. Hence, the prospects of a professional career were very limited for those few who would attain a higher education degree. During the 1960s the situation started to change. In one decade the proportion of women in higher education almost

doubled getting close to half of the enrolments, and from the mid-1980s onwards women students became dominant (see table 6).

*Table 6. Evolution of the percentage of female students in higher education by sub-sector (%)*

<i>Sector</i>	<i>1961</i>	<i>1971</i>	<i>1980</i>	<i>1991</i>	<i>1997</i>	<i>2003</i>
Public	–	43.8	43.6	55.4	54.6	54.1
Private	–	53.6	46.3	56.4	60.8	61.6
University	–	45.8	46.4	55.2	55.2	54.2
Polytechnic	–	34.6	33.3	60.1	58.5	58.6
All institutions	29.1	44.4	43.9	55.5	56.6	56.2

Source: Barreto 1996; Ministry of Education various years

Various factors contributed to this change in female enrolments. Firstly, there was a progressive liberalisation of social conventions, especially after the 1974 revolution. Secondly, there was a progressive feminisation of the labour force. This occurred initially at the lower qualification levels, due to the acceleration of industrialisation, largely supported by labour intensive industries, and associated with the integration of the Portuguese economy within the European Free Trade Association (EFTA). These industries heavily recruited female workers. Finally, during the 1960s a growing proportion of males was committed to the colonial war since 1961, thus opening new opportunities for women in terms of the higher education sector and the labour market. Overall, these changes made society more used to the idea of women combining a professional activity with their traditional roles and provided a stimulus to other women by demonstrating that, despite many obstacles, it was possible to pursue a higher degree and a professional career.

At the beginning of the 1990s women became the majority of enrolled students and graduates in all sub-systems of higher education. The expansion was not uniform across disciplines. Initially it began in those areas regarded as socially more acceptable and those more easily able to allow women to pursue a professional career afterwards. This meant that female students were initially concentrated in teacher training programmes, humanities and health sciences. Eventually, a growing proportion emerged in less traditional areas such as economics, law and engineering. Their significant presence in polytechnic schools is largely explained by the fact that this sector includes the colleges of education and nursing which normally have a very high percentage of female students. The higher percentage of women in the private sector is explained by having fewer technological programmes in this sub-sector.

### *3.2. Socio-economic Origins of Students*

The elitist nature of the Portuguese higher education system of previous decades was clearly reflected in the socio-economic composition of enrolments. Until the 1970s enrolments were low, the number of candidates being restricted by the low literacy

levels of the population. Those few students graduating from secondary education and struggling to remain in the system faced adversity, as families were unwilling to invest in their children's education and there were not many employment opportunities for highly skilled labour, due to the low technological complexity of the economic system. Most qualified labour would either join the ranks of the civil service or find employment with a few industrial groups that expanded their activities in the highly protected economic system of corporatism and colonialism.

The expansion of higher education during the 1960s was associated with important economic transformations occurring during that decade. Throughout the period there was an acceleration of economic growth and increasing pressure for liberalisation of the Portuguese economy, which was largely used to mitigate forms of excessive capitalistic competition. It was also the product of the emergence of a younger generation of politicians favouring industrialisation and a modernising agenda to replace traditional conservatism. Those changes unleashed an expansion of higher education that would raise the expectations of the population, eventually challenging the elitist nature of the system.

The composition of the student population in the 1960s had a high proportion of students whose father had a higher education degree, or at least some secondary education. Bearing in mind the poor levels of literacy of the overall population (see table 1) this shows a clear over-representation of those groups with higher cultural capital and an under-representation of those from deprived backgrounds. In the following decades this picture changed, with increasing access for students coming from families with very limited qualifications. However, the families with formal qualifications well above the average still retained some of their traditional prominence.

The changes to the social composition of the student population were not homogeneous across the sub-sectors (see table 7). Firstly, public universities have a more homogeneous population in terms of cultural capital than public polytechnics, suggesting that students from families with lower qualifications prefer shorter vocational degrees. Secondly, there are no major differences between public universities and private institutions in terms of cultural capital of origin. This suggests that, despite the costlier nature of private higher education, some students from families with lower academic qualifications are using private education as a social mobility instrument, due to the difficulty in getting access to highly contested places in the most prestigious public universities.

The analysis of enrolments by level of income mostly confirms the influence of cultural capital on enrolment patterns (see table 8). Public polytechnics are clearly more socially inclusive than public universities. In terms of students' economic levels there are again no major differences between public universities and private institutions. That suggests that middle and upper class groups with higher cultural capital retained a good grip on access to the most prestigious institutions and programmes (see also Vieira 1995). It also confirms that some middle and upper class families with lower cultural capital are using private universities to culturally promote their children. Full-cost fees, paid by students enrolled in private institutions, significantly hamper the access of lower income groups to those

institutions, though their proportion in terms of enrolments is still surprisingly high, bearing in mind financial constraints.

*Table 7. Distribution of enrolments by level of schooling of the household<sup>4</sup> (%)*

Level	63/64	91/92	1997				2004			
			Pub uni	Pub pol	Priv	Total	Pub uni	Pub pol	Priv	Total
Illiterate/Primary	35.2	25.3	39.3	53.3	47.2	45.0	30.0	50.0	27.2	34.9
Secondary	27.4	19.2	35.7	36.3	34.4	35.4	29.2	29.6	29.4	29.4
Voc. degree	8.7	8.1				6.5	–	–	–	–
Higher education	27.5	18.1	24.7	10.4	18.3	13.1	40.8	20.4	43.4	35.7
Other/NA	1.2	27.1					–	–	–	–

Source: Vieira 1995; CNASES 1997; DGES 2005

*Table 8. Enrolments by level of household income, 2004*

Household income €	Public university %	Public polytechnic %	Private institution %	Total %
Less than 720	13.6	20.1	11.2	14.8
721–1440	28.5	38.8	26.0	30.7
1441–2160	21.6	22.2	19.3	21.1
2161–2880	15.2	10.9	16.9	14.5
More than 2880	21.1	8.0	26.6	18.9

Source: DGES 2005

#### 4. ECONOMIC ISSUES

##### *4.1. The Economic Benefits of Higher Education*

This behaviour of students from lower income groups seems to be rational from an economic point of view, given the potential return associated with a higher education degree. Despite the massive expansion of recent decades, an analysis of the rates of return of higher education degrees in Portugal indicates that not only have these been persistently high, but also they are at the highest level for the 15 EU countries (Pereira and Martins 2000). The average rate of return for education has clearly increased, especially since the mid-1980s, exactly the period of the system's substantial expansion. This pattern of high rates of return for higher education degrees is valid for gender differences and all educational groups.

However, the data also indicate that in the Portuguese case the economic return of education seems to vary significantly (see table 9). The same study has analysed

the economic return to the same level of education for those individuals at the top and bottom income groups. According to the data, the economic return in Portugal for a similar educational qualification is not only very heterogeneous, but also seems to have increased during the system's substantial expansion. This means that the wage benefits from educational qualifications have been decreasing for those getting lower wages and increasing for those getting well-paid ones. This suggests that the economic benefit of education has been declining during the last two decades for those located at the lower end of the pay scale.

*Table 9. Estimated average return to same education level for top and bottom income groups (%)*

<i>Year</i>	<i>OLS*</i>	<i>1<sup>st</sup> Decile</i>	<i>9<sup>th</sup> Decile</i>
1982	11.0	8.7	11.0
1995	12.6	6.7	12.6

\*Ordinary least squares

Source: Pereira and Martins 2000

The good prospects for university graduates also persisted in terms of employment opportunities. In the 1980s and 1990s the levels of unemployment by educational category converged, with a significant reduction for the lowest qualified groups and a slight increase in the number of unemployed with higher education qualifications, from below 2% to around 4% (still the lowest among all groups). A careful analysis of patterns of job creation shows that the Portuguese labour market is characterised by high job rotation, with high job creation/destruction occurring for all groups of workers regardless of their level of schooling (Cardoso and Ferreira 2001). However, both the raw and net rates of job creation were persistently higher for workers with higher education degrees than for those with lower schooling, between the mid-1980s and the late 1990s, precisely the period of greatest higher education expansion. Hence, the slight increase in graduate unemployment did not result from a decline in the willingness of companies to recruit higher education graduates, but rather from the labour market's incapacity to absorb the massive flow of graduates.

Overall one can say that higher education graduates are still, on average, privileged among the Portuguese population. Policy makers and public opinion in general showed growing concern that this massive expansion of higher education eroded the profitability of a higher education degree, leading to graduate unemployment and the decline of the wage premium normally associated with higher formal qualifications. However, a more careful analysis seems to challenge these impressions. Despite the massive expansion of enrolments, particularly concentrated in some scientific areas as well as regional areas, there was neither persistent growth of unemployment nor significant erosion of the monetary benefits associated with a higher education degree. This suggests that higher education is still a very effective way of promoting social mobility, hence the importance of mechanisms such as student support schemes, that enhance educational

opportunities for those from disadvantaged backgrounds, to which we now turn our attention.

#### *4.2. A Review of the Portuguese Student Support System*

We have seen that although the Portuguese higher education system has undergone profound transformation during the last decades, through expansion of enrolments and geographical coverage and diversification, this overall expansion has only partially redressed the traditional prominence of the social groups with the highest social and cultural capital and the under-representation of those groups with the lowest economic and cultural backgrounds. The current student support schemes existing in Portuguese higher education aim to eliminate the economic difficulties faced by students from disadvantaged social backgrounds. This is particularly important since the last decade was characterised by increased cost-sharing both by raising the level of tuition fees in public institutions and by expanding full-cost private institutions.

In this section we review the growth of the mechanisms of student support and its financing. We analyse its impact in terms of the number of students supported, and the average support received by sub-sector and per student. The analysis is placed in the wider context of total costs per student, both in the public and private sectors, in an attempt to suggest how significant the role of tuition fees and of the student support schemes is in the overall cost of attending higher education.

The first steps for the implementation of a student social support system in Portuguese higher education were taken after the April 1974 revolution, aiming at the system's democratisation by giving grants to students from disadvantaged backgrounds.

In 1980, Decree-Law 132/80 of 17 May established for the first time a comprehensive student support system by creating an autonomous service next to each university or university institute. These services were given more financial and administrative autonomy than universities, and a flexible human resources management system was established as the staff for students' residences and restaurants was hired under private law. Its president was the rector, assisted by a vice-president nominated by the rector but appointed by the Minister.

Growing institutional autonomy, brought about by the reforms of the late 1980s, also had an impact on the management of the student support system. In 1988, the University Autonomy Act conferred on public universities an increased degree of autonomy and responsibility for staff and students. Decree-Law 129/93 of 22 April extended the authority of the universities over the support services by formally integrating them into the universities as one of their units. However, some of the former management flexibility was lost, as all staff became public servants.

In the early 1990s student support policies became entangled with the government's attempts to increase cost-sharing by raising tuition fees. In Portugal the nominal value of tuition fees had been frozen since 1941 and in 1990 students who enrolled in public higher education institutions paid only about €6 per year. The 1976 Portuguese Constitution, characterised by its strong socialist nature, determines

that higher education must become progressively free of charge. However, with the complicity of the Constitutional Court it finally became accepted that, although tuition fees could not be raised, updating their value by taking into account inflation since 1941 was not considered a price increase. Therefore, the Parliament passed Law 20/92 of 14 August updating tuition fees under strong protests from students. The new law maintained that tuition fees were the revenue of the institutions to be used mainly for the social support of students and for promoting academic success, thus trying to pacify student rioting.

Tuition fees remained a hot political issue throughout the 1990s. In 1995 the socialist party won the general elections after promising that if they became government they would revoke the law on tuition fees. And this they certainly did, only to start a new war with students as they intended to again increase fees but rely on a more elaborate rationale. In 1997, the Parliament (Law 113/97, of 16 September) reintroduced updated tuition fees but limited its annual value to the monthly minimum wage, thus protecting students against any sweeping tuition increases. To sell this to students, the law established that institutions should use tuition revenues to promote quality and the state declared its intention to improve 'student social support services', namely by additional investments in new halls of residence and restaurants and by regulating the student loan scheme established by law. The government claimed that loans would allow students more financial independence from their families, by supplementing the value of grants. The law also 'progressively' extended student social support services to students enrolled in private institutions.

In 2002 the socialist party was defeated in early general elections and the new government acted swiftly. The Parliament passed a new law (Law 37/03, of 22 August that replaced Law 113/97) establishing a new framework for higher education financing (including the public and private sub-sectors). The major change was that it allowed higher education institutions to set the value of tuition fees between a minimum of 1.3 times the minimum monthly wage and a maximum determined by updating their value relative to inflation since 1941. The rationale behind this innovation was to allow institutions to compete: better quality institutions could set higher tuition fees while lower quality institutions had to keep prices low to attract clientele. However, the law presents two important inconsistencies. Firstly, the gap between the minimum and maximum limits is too low to make a real difference. Secondly, institutions cannot determine the number of vacancies because of the *numerus clausus* system. Therefore an institution cannot rely on having more students at lower fees because it is the state that has the final word in determining annually the *numerus clausus*.

The law of 2003 maintained that tuition revenues should be used to promote quality to be measured by appropriate performance indicators, and emphatically stated that students from disadvantaged backgrounds should not be excluded from higher education for economic reasons, provided their academic merit can be demonstrated. The new law places significant emphasis on promoting equity, access and academic success, regardless of economic, social and cultural disadvantages. However, despite all the rhetoric, it is yet to be seen whether the various changes

will contribute to make the higher education system more democratic and to improve the equality of educational opportunity.

At present, the student social support system includes direct and indirect support mechanisms, irrespective of the enrolling institution (public or private, university or polytechnic). The direct support consists of means-tested grants (scholarships) for needy students who demonstrate academic merit. The grants are awarded every year and are meant to contribute to students' expenses (housing, meals, transportation, tuition fees, etc.). The value of the grants depends on the per capita income of the student's family (or their own, in the case of independent students), and their value has a monthly maximum equivalent to the minimum wage and a minimum equal to one-twentieth of that value (Oliveira and Pereira 1999). Because fees are the revenue of higher education institutions the law determines that the grants include the amount necessary to pay fees, instead of adopting a fees remission policy. The indirect support consists of housing in halls of residence (with priority being given to displaced students with grants), meals in canteens, and other services related to health, cultural and sporting activities.

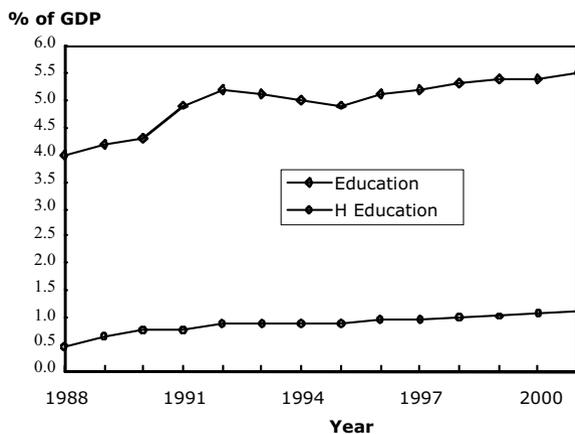
Both Law 37/03 and Law 113/97 established that the state would give support to a loan system that so far has not been implemented. On the one hand, this might be explained by a strong negative reaction from the students, afraid that this would open the way to progressively convert the traditional grant system into a loan system. On the other hand, the state does not have the financial resources for the initial investment in a loan system (Johnstone 2004) and the fiscal system guarantees neither the equity of the system nor its success in terms of loan repayment.

#### *4.3. Higher Education Financing – Public Expenditure<sup>5</sup>*

The data show that public expenditure on education increased from 1.5% of GDP in 1974 to 5.5% of GDP in 2001. From 1988 to 2001, public expenditure on education and higher education increased from 4.0% to 5.5% of GDP and from 0.46% to 1.13% of GDP respectively (see figure 2).

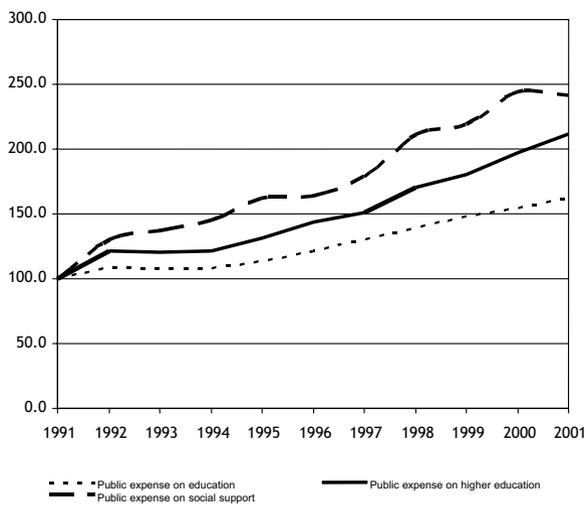
Figure 3 shows that expenditure on student support increased faster than expenditure on higher education, the latter increasing faster than expenditure on education (in 2001, higher education represented about 20% of public expenditure on education).

Figure 4 indicates that public universities always had a higher percentage of students with grants when compared with the percentage of students from public polytechnics and private institutions with grants. However, there is a trend for a general convergence to a much more equitable distribution, eliminating the clear distortion in public social support available for each sub-system (public and private, university and polytechnic) during the 1970s and 1980s. Figure 4 also shows that students from the private sector are quickly catching up to other students, at least in terms of grants. It is also evident that public university students seem to do better than their colleagues from public polytechnics, which is rather intriguing as students from less affluent backgrounds are represented more in the vocational sector.



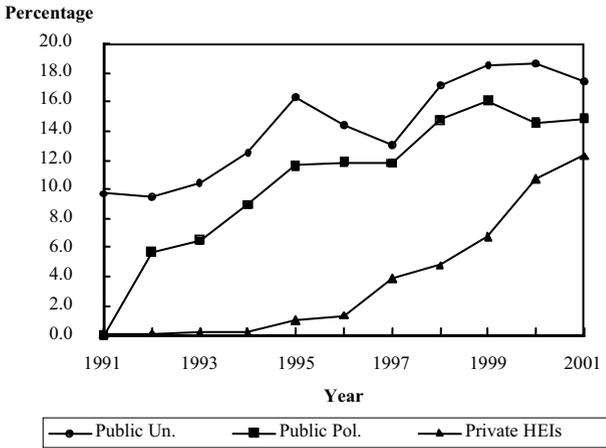
Source: GEF/ME in Medina 2004

Figure 2. Public expenditure on education and higher education as percentage of GDP<sup>6</sup>



Source: GEF/ME and INE in Medina 2004

Figure 3. Growth of public expenditure on education, higher education and student support (1991=100, at constant prices)



Source: DEPGEF, FAE, DGESUP and DSAT in Medina 2004

*Figure 4. Students with grants in public universities, public polytechnics and private institutions (%)*

To overcome the differences between the private and public sub-systems (in 1991 the private sub-system received 29% of all students enrolled in higher education but only 3% of public expenditure on student support) the government extended the grants system to the private sub-sector in 1997, based on the same rules that exist for the public sector, but with an extra allowance to compensate for the higher fees in the private sector. Nevertheless the state establishes a limit to the amount awarded for fee payment, to deter private institutions from increasing fees.

The more equitable treatment of students in public and private institutions is also confirmed by the analysis of the growth of the total funds per sub-system and the average value of grants, as shown in figure 5 and table 10. Grants have become on average higher for students enrolled in the private sector, which explains why the budget for the private sector already exceeds the budget for public polytechnics. It is important to notice, in this context, that many students in the public sector receive a grant equal only to the fee they have to pay, which explains the low average annual value of grants in public universities and polytechnics. This is the result of a political compromise. When the government decided to increase tuition fees for the public sector it also decided that the lowest grant would be equal to the tuition fee in order to claim that no student would be left out of the system because of higher tuition. As tuition is limited by the decision of the Constitutional Court, this results in lower average grants and in a lot of money being very thinly distributed to a large number of students, which probably is not the most effective system for encouraging enrolment of students from deprived backgrounds. Some people would prefer to concentrate the available sum in a smaller number of more generous grants.

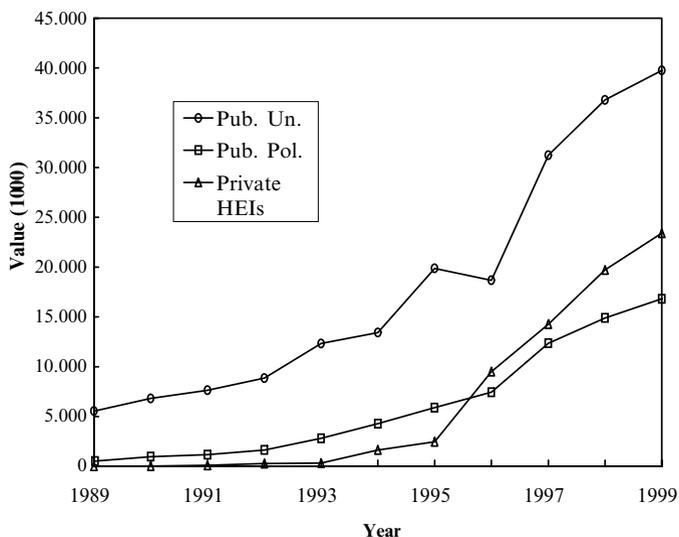
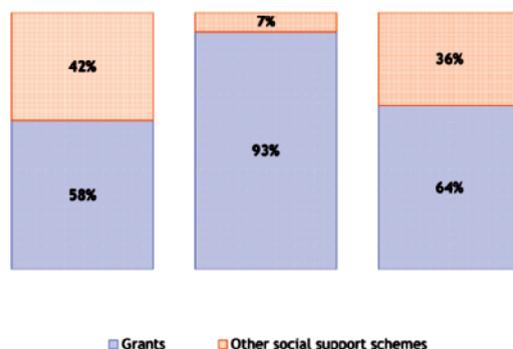


Figure 5. Total expenditure on student support per sub-system

Nevertheless there are still significant differences between the public and private sub-systems. It is clear from figure 6 that student support in private higher education is almost limited to grants (mainly helping to pay tuition fees), while public higher education students benefit from other schemes of student support such as meals, housing, sporting activities and so on, besides the grants. In theory, the government assumes that private institutions are responsible for indirect student support, for instance, halls of residence and canteens. However, private institutions in general do not offer this kind of support – or limit this support to the bare essentials – as it would reflect negatively on their profits, which would leave their students in a less favourable position than their colleagues from the public sector.

Table 10. Average annual value of grants (€)

Year	Public universities	Public polytechnics	Private institutions
1997	1,580	1,441	3,334
1998	1,373	1,265	3,829
1999	1,335	1,147	3,218



Source: DGEP and DGESUP in Medina 2004

*Figure 6. Distribution of public expenditure on student support, 2000*

#### 4.4. Private Costs of Higher Education

Data on the private share of higher education costs are very scarce. Cabrito (2002) surveyed a sample of 2,026 students who were asked to provide estimates of the cost of housing, transportation, books and study material, meals, clothes and other expenses. They were also asked about the tuition fees they paid (a component that increases higher education costs) and/or the grants they received (a component that increases student income). To obtain a preliminary idea of the higher education costs that are directly supported by Portuguese families we will use the data collected by Cabrito (2002) as a proxy for real family expenses. The analysis in table 11 leads to the conclusion that students from private universities spend more, in absolute terms, than their colleagues from the public ones. Nevertheless the major difference is due to the higher fees paid to private universities.

The more relevant private costs are those for meals, which cost more in private universities, probably due to the absence of the subsidised meals provided by all public universities. Housing costs are significantly lower for private university students, which is probably explained by the almost total absence of displaced students among those enrolled in private institutions, but also by the fact that students from this sub-system, when displaced, do not often rent rooms or flats since a large portion of them (39.7%) have their own apartment, or stay with family or friends. In contrast, in the public university sub-system this percentage is only 21.8% (Cabrito 2002).

The survey also identified opportunity costs relative to participation in higher education, meaning the salaries that students forego by deciding to pursue full-time higher education instead of entering the labour market. From table 12 it is possible to conclude that there are no big differences between the perceptions of students

from public and private universities either in relation to what they spend in university or to what they could be earning if they were not attending university.

*Table 11. Average monthly private costs associated with attendance at public and private universities, 1995*

<i>Components</i>	<i>Private costs in public universities</i>		<i>Private costs in private universities</i>	
	<i>€</i>	<i>%</i>	<i>€</i>	<i>%</i>
Housing	42.9	13.7	23.4	4.2
Transportation	36.4	11.6	42.9	7.8
Books and study material	44.4	14.2	57.4	10.4
Meals	107.2	34.3	141.7	25.6
Clothes	44.9	14.4	65.8	11.9
Other expenses	46.4	14.8	64.3	11.6
Fees	12.0	3.8	158.6	28.6
Total	334.2	106.8	554.1	≈100.1
Grant	-21.4	-6.8	-0.50	-0.1
Mean private total costs	312.8	100	553.6	100

Source: Cabrito 2002

*Table 12. Average monthly total private costs of public and private university students, 1995*

<i>Costs</i>	<i>Public universities</i>		<i>Private universities</i>	
	<i>€</i>	<i>%</i>	<i>€</i>	<i>%</i>
Attendance costs	334.2	43.8	554.2	54.7
Foregone earnings	428.0	56.2	459.4	45.3
Total costs	762.2	100	1,013.6	100

There are indications of some relationship between the social, economic and cultural characteristics of university students and their study programmes (see table 13). Students from working class families seem to be almost absent from medical sciences and architecture and far more concentrated in humanities, hard sciences and engineering.

Higher education students with grants belong to families with a mean monthly household income of about €590 and with low academic and economic capital, coming therefore from the less prestigious social classes. These students enrol mainly in study programmes from humanities (24.6%), engineering (23.4%) and sciences (14.9%), with very few enrolling in areas such as architecture (0.9%), medical sciences (1.2%), psychology and education sciences (1.5%) and pharmacy (1.8%).

Table 13. Socio-economic origin of total students by area of study, 1995 (%)

Category	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	Total
Upper & middle upper	11.5	32.2	18.7	19.2	19.7	33.4	33.3	22.6	38.5	23.4	28.6	29.0	22.9
Middle & low middle	58.2	46.5	68.8	58.0	54.6	47.3	61.9	63.0	59.0	54.5	50.4	60.9	54.5
Working	20.8	13.1	9.4	16.7	18.5	8.3	2.4	11.3	0.0	13.9	14.6	5.3	15.4
NA	9.5	8.2	3.1	5.9	7.1	11.0	2.4	3.2	2.6	8.2	6.4	4.8	7.2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Note: A1 humanities; A2 juridical sciences/law; A3 psychology and education sciences; A4 sciences; A5 engineering; A6 pharmaceutical sciences; A7 medical sciences; A8 earth sciences; A9 architecture; A10 social sciences; A11 economic and management sciences; A12 sport sciences

#### 4.5. Who Pays the Private Costs? The Impact of the Social Support System

The state is clearly a relevant actor in bearing the study costs associated with taking a higher education degree. It subsidises the payment of private costs through the student support system, and contributes to more equitable access for students to higher education. Nevertheless, the number of students receiving a state grant is still rather low and the grant's average value is too low to fully compensate for the private costs of attendance. Students have to look for other financial sources, preferring family income and their own work. Table 14 presents the main financial sources of students. It is worth noting the major role played by families, irrespective of sub-system, and the fact that even in public universities only a few of the interviewed students said that grants were their only financial source, while 19.5% of the students holding a grant still needed support from their families.

Table 14. Financial sources of public and private university students, 1995 (%)

Source	Public universities	Private universities	Total
Work	8.8	6.5	8.2
Family	63.6	84.6	69.1
Grant	2.7	0.2	2.1
Other support	1.5	0.6	1.2
Work + Family	3.4	6.7	4.2
Work + Grant	0.5	0.2	0.4
Family + Grant	19.5	1.2	14.8
Total	100.0	100.0	100.0

Source: Cabrito 2002

More recent data (see table 15) confirm that these patterns have not changed significantly. The structure of income of Portuguese higher education students remains largely the same. The main source of support for Portuguese higher education students continues to be overwhelmingly the family, which provides almost three-quarters of their total income. The financial support provided by the state remains on average very limited. The main change is that income from work seems to be growing in relevance for many students and its relative importance is on average more than double the state support. This evolution is probably linked to the growing level of cost-sharing of the public system of higher education, in particular with the increases in tuition fees since 2003.

Table 15. Sources of income of Portuguese higher education students, 2004

Source	%
Family (money and intangibles)	72.1
Government	7.7
Work	18.5
Other	1.7

Source: DGES 2005

Despite the significant growth of the public expense of the student support system over the last decade, one may conclude from the available data that it is still a system that has a rather limited impact on promoting an equal representation of all social groups in higher education, and especially in the more contested scientific areas such as medicine or architecture.

## 5. CONCLUSIONS

Nowadays we tend to be more sceptical about the idea that the expansion of higher education will bring about greater diversity in its socio-economic intake. The Portuguese experience seems to confirm that the issues at stake are indeed more complex and that, in the case of higher education systems experiencing a sustained and rapid expansion in numbers and types of institution, the increase in the proportion of students from disadvantaged backgrounds moves far more slowly. In fact, the Portuguese system of higher education has experienced a rapid expansion from the mid-1980s onwards and although it moved rapidly away from the pattern of a small, socially elite, regionally concentrated and male dominated system (which was the case in the 1960s), some traits of this are still evident. The system's expansion was largely supported by traditional socio-economic groups, though the last decades have suggested the possibility of a more balanced intake in terms of gender, region and socio-economic origin. The overall expansion has led to a slow but visible diversification of its student population, partially redressing the traditional prominence of social groups with the highest social and cultural capital.

Nonetheless, higher education students are still far from being a representative sample of Portuguese society in general, and of its corresponding age cohort in particular. The proportion of those enrolled from working class and lower class backgrounds is still much lower than those from middle and upper class backgrounds. Moreover, the expansion of the Portuguese higher education system has gone hand-in-hand with increased cost-sharing, either directly through the increase of tuition fees in the public sector (Teixeira, Rosa and Amaral 2004), or indirectly due to the expansion of the private sector (Amaral and Teixeira 2000) with much higher fees than the public sector. This move towards increased cost-sharing has complicated the picture of expansion, creating additional financial pressure on disadvantaged students and challenging access policies.

This has given additional relevance to the role that student support schemes may have in preventing rising costs deterring students from the most deprived social backgrounds from enrolling in higher education. In fact, the expansion of the higher education system has also been characterised by the introduction of a student support system that aimed to improve equality in educational opportunities. According to the data presented in this chapter, it is possible to conclude that in the last decade there has been a significant increase in public expenditure on social support. Unfortunately, this increase has been insufficient to create an effective

social support system capable of promoting equitable access to higher education. The initial low base expenditure and the fact that growth in terms of funds has basically followed the expansion of the system have not altered the fact that Portugal has one of the lowest per capita outlays in terms of support systems.

This moderate growth in the funds allocated to support systems, particularly when bearing in mind the explosion of the system in terms of enrolments, has meant that the growth in the number of grants has tended to produce lower average grants. This has meant that the private costs of a higher education degree have remained very much the same in real terms with limited impact in making it more affordable for youngsters from poorer socio-economic backgrounds, who seem to be the most cost-sensitive in terms of enrolment decisions (see McPherson and Schapiro 1991).

Furthermore, the fact that the proportion of students from disadvantaged groups is not homogeneous between types of programmes and areas of study raises important questions in terms of equity. In fact, these students tend to be represented more in vocational programmes and less in those programmes with more competitive access and traditionally associated with high social and economic prestige (e.g. medicine, architecture, law and engineering). This suggests that there is ample opportunity for improvement in making the support systems an effective instrument to promote equity in access to the system.

Overall, there are strong indications that important obstacles hinder access to higher education for students from disadvantaged backgrounds. This can only be changed by a significant reinforcement of the levels of spending and an enlargement of the mechanisms of support prior to higher education. At a time of significant financial restrictions for public spending and for higher education institutions, public and private alike, the political and institutional challenges seem to be significant if the Portuguese system is to genuinely pursue the purpose of socially broadening access to higher education.

## NOTES

- 1 Despite the general absence of studies on these matters, some important insights can be drawn from pioneering work done by Nunes (2000) and Cruz and Cruzeiro (1995).
- 2 The data presented in this and the following tables in terms of enrolments refer to total numbers. Since the levels of postgraduates and part-time students are negligible for the period analysed, the typical student will be overwhelmingly enrolled in a full-time undergraduate programme.
- 3 In the context of private institutions it is very difficult to distinguish universities from polytechnics, since most of these institutions encompass both university and polytechnic types of degrees. For this reason throughout the text the data presented refer to private institutions as a whole.
- 4 Due to the lack of data, with the exception of 2004, the level of formal education of the father is used as a proxy for the family's cultural capital. In the case of 2004 the level of schooling of the household refers to the combined values of father and mother of students enrolled.
- 5 A significant part of the data used in this section comes from Medina (2004).
- 6 Data include current and investment expenditures, as well as own resources. From 2001 onwards the budgets of the nursing and health technology schools are included (previously they were included in the Health Ministry's budget).

## REFERENCES

- Amaral, A. and P. Teixeira. "The Rise and Fall of the Private Sector in Portuguese Higher Education?" *Higher Education Policy* 13.3 (2000): 245–266.
- Barr, N. and W. Low. "Students Grants and Student Poverty." Discussion Paper No. 28, Welfare Program, London School of Economics, 1991.
- Barreto, António (ed.). *A Situação Social em Portugal*. Lisboa: ICS, 1996.
- Cabrito, B. *O Financiamento do Ensino Superior*. Lisboa: EDUCA, 2002.
- Cardoso, Ana Rute and Priscila Ferreira. "The Dynamics of Job Creation and Destruction for University Graduates: Why a Rising Unemployment Rate can be Misleading." NIMA Working Paper Series No. 10, Braga, 2001.
- CNASES. *Inquérito Sócio-Económico aos Estudantes do Ensino Superior*. Lisboa: CEOS, 1997.
- Cruz, Manuel Braga and Maria Eduarda Cruzeiro. *O Desenvolvimento do Ensino Superior em Portugal – Situação e Problemas do Acesso*. Lisboa: DEPGEF (Ministério da Educação), 1995.
- DGES. *Social and Economic Conditions of Student Life in Portugal*. Lisbon: DGES (Ministry of Science, Technology and Higher Education), 2005.
- Forsyth, Alasdair and Andy Furlong. *Socioeconomic Disadvantage and Access to Higher Education*. Joseph Rowntree Foundation. Bristol: The Policy Press, 2000.
- INE. *National Statistical Yearbook*. Lisboa: Instituto Nacional de Estatística, various years.
- Johnstone, D. Bruce. "Cost-Sharing and Equity in Higher Education: Implications of Income Contingent Loans." In Teixeira, P., B. Jongbloed, D. Dill and A. Amaral (eds). *Markets in Higher Education: Rhetoric or Reality?* Dordrecht: Kluwer, 2004, 37–60.
- McPherson, Michael and Morton Owen Schapiro. *Keeping College Affordable*. Washington: Brookings Institution, 1991.
- Medina, F. *10 Anos de Acção Social no Ensino Superior – Contributos e Reflexões*. Lisboa: Fundo de Acção Social, 2004.
- Ministry of Education. *Estatísticas da Educação* (Statistical Yearbook). Lisboa: Ministério da Educação, various years.
- Nunes, Adérito Sedas. *Antologia Sociológica*. Lisboa: ICS, 2000.
- Oliveira, T. and P. Pereira. "Who Pays the Bill? Study Costs and Students' Income in Portuguese Higher Education." *European Journal of Education* 34.1 (1999): 111–121.
- Pereira, Pedro Telhado and Pedro Silva Martins. "Does Education Reduce Wage Inequality? Quantile Evidence from Fifteen Countries." IZA Discussion Papers No. 120, Bonn, 2000.
- Reis, Jaime. *O Atraso Económico Português 1850–1930*. Lisboa: INCM, 1993.
- Reutenberg, S-E. and A. Svensson. "Student Financial Aid and Participation in Swedish Higher Education." *Scandinavian Journal of Educational Research* 31.4 (1987): 139–150.
- Simão, José Veiga, Sérgio Machado Santos and António de Almeida Costa. *Ensino Superior: Uma Visão para a Próxima Década*. Lisboa: Gradiva, 2002.
- Taubman, P. and T. Wales. *Higher Education and Mental Ability*. New York, NY: NBER, 1972.
- Teichler, U. *Changing Patterns of the Higher Education System: The Experience of Three Decades*. London: Jessica Kingsley Publishers, 1988.
- Teixeira, P. and A. Amaral. "Private Higher Education and Diversity: An Exploratory Survey." *Higher Education Quarterly* 55.4 (2001): 359–395.
- Teixeira, P., A. Amaral and M.J. Rosa. "Mediating the Economic Pulses: The International Connection in Portuguese Higher Education." *Higher Education Quarterly* 57.2 (2003): 181–203.
- Teixeira, P., M.J. Rosa and A. Amaral. "Is There a Higher Education Market in Portugal?" In Teixeira, P., B. Jongbloed, D. Dill and A. Amaral (eds). *Markets in Higher Education: Rhetoric or Reality?* Dordrecht: Kluwer, 2004, 291–310.
- Vieira, Maria Manuel. "Transformação Recente no campo do Ensino Superior." *Análise Social* XXX (1995): 315–373.

FRANK ZIEGELE

## THE GERMAN TUITION FEE DEBATE: GOALS, MODELS AND POLITICAL IMPLICATIONS OF COST-SHARING

### 1. INTRODUCTION

In comparison with other countries Germany's student numbers are too small. So our country can't afford tuition fees with deterring effects, because our country's economic progress is based on a highly qualified labour force (Edelgard Bulmahn, German Federal Minister for Education and Research, speech to a university audience, 2002).

The above statement by Bulmahn still guides official German policy at the federal level: tuition fees are regarded as per se a deterrent to participation and their imposition would signal the sudden end to open access to higher education. This strict position led to a tuition fee ban set by the Federal Framework Law for higher education for all undergraduate and consecutive master<sup>1</sup> studies in public universities. Despite the fact that in Germany the task of higher education is mainly the responsibility of the states and that universities are mainly financed by the states, there is some federal government framework legislation that sets boundaries for the state laws.

In 2004 the 'federalism commission' started its work on restructuring the German federal system. It was intended to reduce mixed competencies and lessen resistance to reform (in recent years reform projects set forward by one side often were blocked by the other for political reasons). One of the goals of the states was to reduce the Federal Framework Law in the higher education sector to a few basic competencies, for example, guaranteeing some general rules on entry mechanisms for students. But federal advocates wished to strengthen federal competencies, arguing the requirements of the Bologna process and the necessity to regulate the tuition fee (= tuition free) system at the federal level. For this and other reasons the work of the commission finished in December 2004 without any results.

These facts seem to build a rather problematic starting point for a rational debate about cost-sharing. Nevertheless, this debate is still going on. First of all, several German states with conservative governments are trying to get rid of the federal tuition fee ban by bringing an action against it to the German Constitutional Court (arguing that fee imposition is a constitutionally mandated state responsibility). The court decision will be made in January 2005. In the likely case they succeed, tuition fees will be back on the political agenda. Secondly, the federal ban in recent years never managed to stop discussions about models and presumed effects of tuition fees; there are more and more actors trying to develop concepts with specific

strategic goals. Thirdly, some forms of tuition fees already exist. And last but not least, there has been some analytical work on tuition fee models.

Obviously, in the current situation, a presentation of the German situation is characterised by a lack of empirical evidence about the effects of tuition fees. Therefore the following analysis is focused on the political processes and strategies for implementing tuition fees and on innovative suggestions for increasing the private funding of higher education.

This chapter starts with the current state of cost-sharing in Germany (section 2) and describes the different phases of the cost-sharing and tuition fee debate in the last few years (section 3.1). Next, two aspects of the current situation are analysed: the strategic goals of the existing tuition fee initiatives on the one hand (section 3.2), and the political tactics of tuition fee opponents and proponents on the other (section 3.3). Some of the proposed models with innovative elements are then described in more detail (section 4). The chapter concludes with a more general treatment of important topics and the main policy issues of the model-centred debate (section 5). Section 6 summarises the chapter. Where sections 2–4 of the chapter are mainly descriptive, section 5 evaluates arguments and models and gives recommendations relevant to the German context.

## 2. THE STATE OF COST-SHARING IN GERMAN HIGHER EDUCATION

Before analysing the cost-sharing situation, some general facts about the German system (HIS 2004) should be given which are relevant to the financial and student-oriented context:

- The expenditure on higher education institutions in Germany was about 0.95% of GDP in 2000, compared with 1.21% in the Netherlands and 1.64% in Finland.
- The same legislation allows each institution to set the value of tuition fees, between a minimum and a maximum level established by the Ministry of Science and Higher Education, though the difference between the minimum and the maximum value is only 30%.
- The expenditures for a whole study programme in Germany are US\$70,000 compared with about US\$46,000 in the Netherlands and more than US\$50,000 in Finland. In 1993 about 26% of the age cohort started higher education, in 2002 about 34.6%.
- Enrolments in Western Germany were about 1.04 million students in 1980. After reunification, student numbers reached 1.94 million in 1991 and 1.8 million in 2000.
- German universities are overwhelmingly funded by public budgets, mainly state budgets. The federal government finances by means of programme funding and is responsible for large investments and buildings (jointly financed with the states). There were strong arguments to pass this federal responsibility to the states in the current reform debate on the federal structure. In addition to basic funding there

is research funding by the Deutsche Forschungsgemeinschaft (DFG), again jointly financed by the federal and state governments. Fees are possible and used for further education, professional training and in several states for second studies (if students already hold a higher education degree; the consecutive masters is not regarded as a second study). Universities engage more and more in acquiring external research funds.

- With respect to state funding there are 16 different models in the 16 German states, but there are some basic trends. Allocation of public funds is partly based on formula funding, including ‘money-follows-student’ criteria and performance indicators. In almost all states there are additionally contract-based funding mechanisms. The funds are more or less given as lump sum budgets (in some states with prevailing elements of input-oriented regulation).

As a consequence of the tuition fee ban, the public-private cost-sharing ratio (concerning direct educational expenses like institutional costs, books, equipment, etc.) is about 85:15 (Dohmen 2004: 12), a rather high ratio of public funding in terms of international comparison. Public expenditure per year is about €10.9 billion (without research), private expenditure is about €1.9 billion. In 2000 this meant about €8000 public and €1200 private expenditure per student.

The picture changes once opportunity costs are taken into account. The analysis of cost-sharing should not be limited to institutional and direct costs. Cost shares are also determined by indirect costs such as students’ foregone income. At the end of the 1990s, CHE (Center for Higher Education Development) published a study about the rates of return on public and private investment in higher education, illustrated in the table below (for a detailed description of the calculation methods see Ziegele et al. 2000). The scope of this study was limited, since external effects had not been taken into account and only universities had been considered. The comparison of public and private returns was merely based on foregone income vs additional lifetime income on the private side, and total cost vs additional tax revenue on the public side. Of course the study was based on a substantial amount of assumptions, therefore the exactness of the numbers should not be taken too seriously. Nevertheless, the study provides some interesting general insights. Cost-sharing changes dramatically compared with the sole consideration of direct costs. In all disciplines mentioned below, the private cost share (comparing foregone income with total public cost including institutional cost and grants) is about 45 per cent. Individual opportunity cost (foregone income) is rather high because of the length of studies (average 6–7 years until reaching the ‘Diplom’, the traditional first degree in Germany).

The rate of return consideration gives some hints on the dimension of ‘benefit sharing’. The much larger benefit shares lie on the students’ side if just the financial effects are taken into account. This raises doubt regarding the common argument in the German debate that tuition fees are not necessary because graduates pay back their monetary advantages through progressive lifetime taxation.

Table 1. Public and private investments in German higher education (universities, late 1990s) in €

	Students			Public sector		
	Foregone income €	Additional lifetime income €	Rate of return %	Total cost €	Additional tax revenue €	Rate of return %
Law	-74,865	506,228	9.14	-89,677	189,969	3.33
Physics	-90,300	483,497	7.55	-114,587	181,287	1.95
Management	-101,275	416,617	6.30	-111,109	155,956	1.43
Engineering	-110,106	459,630	6.14	-139,372	171,886	0.85

The cost-sharing situation seems paradoxical. Despite the tuition fee ban and low private shares in direct educational expenses, the effective private cost share including opportunity costs is rather high. Dohmen (2004: 13) calculated the opportunity costs of one study year beyond normal study length: they amount to €20,000. If tuition fees of €1,000 per year were introduced and gave incentives for more efficient study programmes and student behaviour, then a student completing studies in five instead of six years would receive a net gain of €15,000. In the German situation, the introduction of tuition fees thus bears the potential to lower the private cost share and to enhance the private rate of return. In other words, the Minister's statement above, which alleges a direct link between tuition fees and deterrence, is based on wrong assumptions. Of course it cannot be taken for granted that tuition fees immediately will lower study duration – the mechanisms behind study length are more complicated and determined by a large number of factors. But the Minister's conclusion still seems to be problematic.

Theoretically, the trade-off between study length and tuition fee payment could be regarded as a simple optimisation problem. The level of annual tuition fees that equalises the net present value of costs of attending a university in the cases with and without tuition fees can be regarded as the maximum tolerable level without negative effects on the private cost share. In other words, we can identify the level of tuition fees at which students will be indifferent towards the imposition of tuition fees:

$$\sum_{i=1}^n \frac{[FY_i + T_i]}{(1+r)^i} = \sum_{i=1}^d \frac{[FY_i]}{(1+r)^i} \quad (1)$$

where  $T_i$  = annual tuition fee in period  $i$   
 $FY_i$  = foregone income in year  $i$   
 $r$  = discount rate  
 $n$  = years of study with tuition fees  
 $d$  = years of study without tuition fees (assumption  $d \geq n$ )

The equation represents an economic approach for decision making about tuition fee volumes (see section 5.2 for a discussion of tuition fee differentiation). For example, different levels of foregone income could be assumed for different disciplines, so the formula provides hints for a market-oriented fee differentiation. The equation also shows that in the case of a tuition fee system combined with enhanced quality, better student-staff ratios and more customer orientation the difference between  $d$  and  $n$  will be larger than in a tuition fee model where the money vanishes in state budgets. Therefore, the students' willingness to pay will also be higher.

### 3. THE EMERGENCE OF A TUITION FEE DEBATE

#### 3.1. *The Phases of the German Tuition Fee Debate*

If we try to describe the emergence of a tuition fee debate in Germany, the tuition fee debate empirically has been going through four phases (see figure 1).

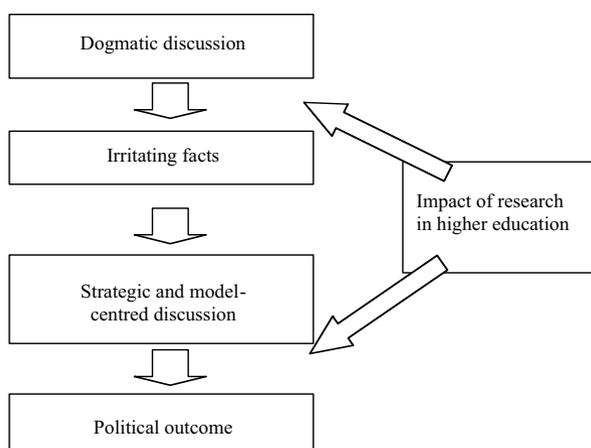


Figure 1. *The four phases of the German tuition fee debate*

*Dogmatic discussion:* Until the middle of the 1990s, the debate on cost-sharing was emotionally and ideologically charged. Tuition fee proponents (mainly coming from industry or being economists, some university leaders, single politicians) expected to solve all of the problems in the higher education sector by the imposition of tuition fees. Those who opposed tuition fees (all political parties in their official statements, student bodies, most of the universities) based their no less dogmatic position on the following essentials:

- open access and tuition free higher education belong together, tuition fees impose an access barrier;
- the imposition of tuition fees leads to a decline in student numbers;
- tuition free studies lead to more distributional justice; and
- because of a high preference for higher education in German society, public funding is a reliable source of revenue.

*Irritating facts:* In this polarised situation, at the end of the 1990s the ‘good or evil’ logic was shattered by empirical facts and results of research. The second phase seems to be a success story of researchers in higher education, who managed to irritate political decision makers by questioning the perceived wisdom (see Gröske’s study (1994) mentioned below).

On the one hand, the introduction of ‘money-follows-student’ allocation systems combined with financial autonomy in public funding of universities in most of the German states showed that supply-side incentive effects could be induced without tuition fees (Ziegele 2000). Tuition fee proponents had to realise that some of the expected benefits, especially a new ‘customer’ orientation in teaching activities, appeared to be possible without tuition fees. Because of the fear that in times of budgetary crisis the tuition fee revenue will not be available for the universities, the student-oriented formula funding for public money will even be preferable to tuition fees.

On the other hand, all of the four essentials of tuition fee critics appeared to be without substance. The opportunity cost argument shown above challenged the assumption of a decline in student numbers and the access barrier problem. Corresponding empirical evidence from abroad strengthens this point (e.g. Australia; the Irish case where the abolition of fees did not help to boost participation of students with low socio-economic status; and the recent rise of application numbers in Austria, which led to a new all-time peak in the number of new entrants into the university system in spite of the introduction of tuition fees two years before).

The distributional argument also appeared to be problematic. Empirical studies showed that tuition free higher education leads to redistribution from the poor to the rich. Gröske (1994) calculated the tax-transfer-balance resulting out of higher education and found substantial net benefits for academics. Academics receiving those net benefits on average have about 30% higher income than non-academics; the net transfers thus favour a richer group.

Sturn and Wohlfahrt (2000) doubted Gröske’s study, which according to their point of view did not include the ‘tax smoothing advantage’ of non-academics, who benefit from lower payments of progressive income taxes just because of a more steady stream of lifetime income. Gröske rejected this objection, because the smoothing advantage does not exist if the whole German tax system is considered (several incidence calculations including all direct and indirect taxes, not only income taxation, show a more or less proportional tax burden for all income classes, Gröske 2002).

Gröske’s results were confirmed regarding the educational system as a whole (Dohmen 2004: 18). Someone with an educational career from kindergarten to

secondary and dual vocational education receives a public benefit of €60,000, while a student with a career leading to a university degree after six years of study receives a total of €135,000. Moreover, the social composition of university graduates differs from the composition of people with vocational training; large parts of the subsidies go to better-off socio-economic groups (but the tax side is neglected in this study).

Participation rates also sustain the picture of injustice in tuition free higher education. Data from the OECD and elsewhere show a picture of selectivity in access and social selection for Germany. Only 32 per cent of the 2001 age group acquired higher education degrees in Germany. Percentages in most Western industrial countries are much higher (OECD 2002): 65 per cent in Australia, 72 per cent in Finland, 54 per cent in the Netherlands and 45 per cent in the UK. Only 10 per cent of children from lower socio-economic backgrounds start higher education, but 81 per cent of the high income group (DSW 2004) do so. If these results are taken together, it appears that the German policy of tuition free studies has no positive effects on distributional justice.

The fact that inequity of access still persists all over the world indicates the major role of non-economic factors (culture, traditions, etc.) emphasising that selection mechanisms mainly operate at lower educational stages in the school system (CHE and Stifterverband 1999). This provides an explanation for the missing direct relationship between tuition fee volumes and social selection in international comparative studies.

The previous arguments indicate that tuition fee models should take into account two aspects of distributional justice – the total tax-transfer-balances (or comparable measures for net benefits to different groups in a lifetime perspective) and the minimisation of access barriers. It depends on the tuition fee system for there to be harmony or conflict (e.g. see the arguments concerning potential harmony in the case of income contingent loans in section 5.3).

Finally, while the education field still enjoys a high political profile, two problems remain for higher education: The PISA study drew political attention – and money – towards primary and early stages of secondary education. And in times of extreme budgetary crisis, even the educational field has to face financial cutbacks. For example, the ‘Higher Education Optimization Concept’ in Lower Saxony confronts higher education institutions with average budget cutbacks of 3.24% in 2004 and 4.05% in 2005.

Research on higher education and the resulting empirical evidence demonstrated that the world was not as simple as assumed and that clear attitudes (and prejudices) towards tuition fees could no longer be sustained. It also became clearer that tuition fees are not able to remedy all problems in higher education and have to be regarded as one small element in a larger set of higher education management instruments.

*Strategic and model-centred discussion:* Consequently, the nature of the discussion changed. From arguing why someone favours or opposes tuition fees, the debate shifted to a focus on goals linked to tuition fee imposition and on the advantages and disadvantages of specific models. This debate (starting about 1998 with the CHE ‘Student Contribution Model’ as one of the early milestones) is presented in the following section. This phase has yet to come to an end.

*Political outcome:* Politically, the process led to the first decisions on the implementation of tuition fees (phases 3 and 4 are overlapping at the moment). Some decisions have already been taken. In most of the German states ('Länder'), tuition fees for long-term students have been introduced. Students exceeding normal study length (defined as 'Regelstudienzeit' + x semesters) have to pay €500–€650 per semester (Ziegele 2001). The rationale of this model lies in the – politically attractive – punishment of 'lazy' students and in incentive effects to study more efficiently. Further decisions are postponed because of the Constitutional Court decision expected in January 2005. Again this phase could be influenced by research results.

The phase model seems to be quite logical, but of course there have been and still are loops in the development. Dogmatic positions still exist, so from time to time there are regressions to a previous phase. Nevertheless the four phases mark a clear trend.

### 3.2. Strategic Goals of Tuition Fee Implementation and Corresponding Models

At the moment, the German tuition fee debate is located between phases 3 and 4 with the strategy- and model-oriented discussion prevailing. The variety of suggestions made during the last few years reflects a wide range of possible tuition fee policies. To understand the features and orientations of the different models, it is necessary to look at the strategic goals behind the suggestions. The different strategies can also be used as a checklist for existing models in order to evaluate their contribution to certain principles for the establishment of tuition fees. The following table illustrates the strategies and their model implications. In most of the cases the strategies linked with the models are being formulated quite explicitly by the model proponents.

One aspect appears in several models and should be stressed: a quite common implication of tuition fee proposals is the idea of 'buying change'. Reforms and changes in quality, participation, decision making, etc. are put into a package with the payment of tuition fees.

Table 2. Strategies and implications

<i>Strategy</i>	<i>Special model features corresponding with strategy</i>	<i>Examples</i>
Punish and induce incentive effects on long-term students, lower average study length	Special fee for long-term students, voucher models with full state financing only for limited time, no refinancing framework (no loans, scholarships)	Models implemented in most of the states
Enhance distributional justice by widening capacities (and consequently access) with additional money	Fee revenue as investment in capacities, models for need blind admission (especially income contingent loans), centrally steered model	Not in the focus of the German discussion, main example is HECS

Enhance distributional justice by linking tuition fees with instruments for refinancing, vary cost-sharing without capital constraints and with minimum risks for students	(Income contingent) loans, scholarship strategies	Most of the models (seen as precondition for the implementation of tuition fees)
Pricing of special offers, financing higher quality, product differentiation	Pricing on institutional level, top-up fees, refinancing instruments like loans also on institutional level (fee-loan packages as competitive offers), payback guarantees (in case of unemployment of graduates)	ExcellenTUM model (TU Munich, Kronthaler 2003)
Mechanism to promote student participation in institutional decision-making processes	Allocation decisions on fee revenues with student participation, transparency of fee model and its effects, principles set by students (e.g. Witten/Herdecke: tuition fee for study as a whole to ensure freedom of course choice)	Private university Witten/Herdecke (Cybulski 2003)
Change of individual decisions and thinking: regarding studies as investment in human capital, maximising rates of return, steering effects on students' choice of discipline	Pricing on institutional level, market-oriented price strategies, integrated model for tuition fees and maintenance support in order to bring together the parts of the investment decision	Model of Hamburg's Minister of Science Dräger (Dräger 2003)
Integrating tuition fees in a consistent concept of financing lifelong learning and/or an integrated concept of tuition fees and maintenance support	Voucher model for lifelong learning with cost-sharing arrangements throughout the whole education process	Dohmen model (Dohmen 2004)
Linking tuition fee introduction with the Bologna process	Fees per module instead of fees per semester, probably start with tuition fees at masters level	Proposal of the Green Party in Baden-Württemberg
Linking tuition fee introduction with a broader reform in higher education leading to autonomy, competition and customer orientation	Correspondence of 'money-follows-student' in public and private finance, tuition fees as autonomous price policy of universities (part of student marketing), new modes of student selection as security for loan systems, incentive effects on demand and supply side	Student Contribution Model (CHE and Stifterverband 1998)

<i>Strategy</i>	<i>Special model features corresponding with strategy</i>	<i>Examples</i>
Fiscal purposes: generating revenues for public budgets	Revenue goes into public budgets; Hamburg: tuition fees for non-inhabitants of Hamburg to induce movement to Hamburg (in order to gain from fiscal equalisation scheme among the states)	Tuition fees implemented in Hamburg; long-term students' fees in Lower Saxony
Tuition fees as an instrument to establish 'process responsibility' of universities for the whole student lifecycle (including responsibility for non-academic student services), cost transparency (no hidden fees)	One fee for all kinds of academic, social and counselling services for students, no separate contribution to the Studentenwerke, universities offer a package of services to attract students	Proposal of Ziegele et al. (2004)

The clarification of the strategic goals forms the basis for a rational discussion about tuition fee models. Some of the models mentioned in the table are discussed in more detail in section 4.

The diversity of models shows one basic problem: there is the tendency to 're-invent the wheel' several times resulting in an overly diverse system in Germany. This aspect is discussed in section 5.2.

### *3.3. Tactical Measures in the Tuition Fee Debate*

As indicated above, tuition fees always stand for certain objectives. To understand the position of fee proponents or opponents it is necessary to understand the objectives aspired to. Another aspect for understanding behaviour is political tactics. In order to achieve a certain goal, political majorities have to be convinced. Some implications of the way this is done in Germany can be explained by public choice theory:

- Tuition free higher education is a typical example for creating a 'fiscal illusion' (such public choice thoughts are based on Buchanan and Tullock 1962): visible expenditure programmes are concentrated on a powerful interest group (academics), the cost is hidden as an invisible part of the total tax revenue and borne by the mass of taxpayers. Fiscal illusion means that the costs are underestimated and the distributive effects are not transparent. Tuition fee proponents try to destroy this fiscal illusion by means of putting the problematic distributional effects on the political agenda. The argument 'the nurse pays the doctor's education' seems to be quite plausible for the public. The destruction of

the fiscal illusion contributes to a change in political majorities now favouring tuition fees.

- As long as tuition fees were not able to gain political majorities, another type of fiscal illusion could be created by imposing fees through the backdoor. For example, cutbacks in the public funding of student services (in Germany provided not by the universities, but by the special institution ‘Studentenwerk’) lead to higher student contributions to the Studentenwerk (taking place in Hamburg at the moment, Ziegele et al. 2004). This induces a change in cost-sharing much less visible than the general introduction of tuition fees.
- Tax theory shows that taxpayers can become accustomed to a tax. This has no influence on the incentive effects of taxation (based on the effects on relative prices), but there could be an effect in the political process: if taxpayers get used to a certain tax, it will be less important for their voting decision, so it will cost less votes (Folkers 1987). Probably this effect is intended if politicians regard the widely accepted long-term students’ fees as a ‘gateway drug’ for other forms of tuition fees. The long-term students’ fees make the voter/taxpayer familiar with the notion of fee payments in higher education. Getting used to taxes or tuition fees could also mean that irrational reactions (this means reactions based mainly on psychological phenomena and not on relevant changes in rates of return in higher education) in the phase of introduction of tuition fees are only of short-term relevance. For example, after introducing tuition fees in Austria the application and new enrolment numbers declined dramatically. Two years later Austria reached the old level again and realised a higher number of newly enrolled students than before.

Section 3 provided an overview of the process and directions of the German tuition fee debate. It pointed out different strategic goals achievable with the introduction of tuition fees and mentioned some proposed or already implemented models which stand for certain objectives. The following sections are intended to reveal further insights of the German debate:

- Which innovative tuition fee models have been proposed or implemented (section 4)?
- Which are the important policy issues? Which analytical results have been produced concerning these issues and what recommendations can be provided (section 5)?

#### 4. INNOVATIVE TUITION FEE MODELS IN THE GERMAN DEBATE

The models presented in this section have some innovative and distinctive features, but they are different in scope. The Student Contribution Model and the Lifelong Learning Model are designed for the national or state level. The other two models

represent institutional responses to the opportunity of decentralised tuition fee design. Therefore some of the models can be combined, for example the Student Contribution Model could be the framework for realising ExcellenTUM by single universities.

#### *4.1. Student Contribution Model*

A detailed description of this model can be found in CHE and Stifterverband (1998) and Ziegele (1998). The main strategic goal is to integrate the tuition fee debate into a broader context of higher education reform and to present a model design which contains advantages for all players: higher education institutions receive direct revenues, students benefit because of earmarked revenues for teaching expenses and the state bears no additional financial risks caused by the proposed loan system.

The model proposes to combine tuition fees with income contingent loans (HECS type). This element of student independence is balanced with a clear signal of parental responsibility. According to the model, educational savings are subsidised by the state. The idea is to send the message that parents are still obliged to support their children in tertiary education. This proposal has to be understood against the background of a strong legal definition of parental responsibility in German legislation – if parents with sufficient income do not support their children's studies adequately, students are able to take their parents to court.

Unlike HECS, the additional financial burden of starting an income contingent loan system is not covered by the public budget (because EU debt criteria allow no additional debt burden for state budgets). Instead, a direct relationship between a bank and a student is established, the financial source is the capital market and the repayment scheme is guaranteed by a special agency (which covers the difference between market-oriented interest payments plus fixed repayments and income contingent repayments).

The model includes several incentive mechanisms. For example, the risk of non-repayment is to be covered by a financial reserve built out of fee revenue. This provides an incentive for the higher education institutions to lower non-repayment by means of excellent and labour market oriented education. Thus the model is – like the Australian HECS – based on risk-sharing, not on risk-pooling (Chapman in this volume). Contrary to the Australian model, in Germany a risk share is taken by the universities and not by the state. There is some implicit risk-pooling within this solution, since the risk is indirectly borne by the students by means of reduced benefits from educational expenses.

#### *4.2. Lifelong Learning Model*

Dohmen (2004) developed a cost-sharing model in the context of lifelong learning. The system of education finance should provide the same educational subsidies for all educational paths. If someone leaves education early, they should have the chance to re-enter the educational system later. The basis for such a system could be an endowment of every citizen with a certain amount of vouchers. The vouchers can

include a private cost share: the private share should rise with the stage of education. Because of high public benefits, kindergarten and school costs may be completely covered by the voucher, tertiary and further education (with rising shares of private benefits) should include a private cost share.

The current German situation is the opposite of this concept. Private cost shares in early childhood education are rather high. The higher you climb the educational ladder, the lower is the private cost share, which conflicts with the usual hypotheses about external effects of education.

In this system, public subsidies and socially motivated measures are integrated at several points:

- The initial endowment with vouchers may be socially differentiated, for example immigrants may receive additional vouchers for language courses. The idea is to locate special measures to enhance educational participation of disadvantaged socio-economic groups where the roots of the problem lie: at the beginning of educational careers.
- The parents benefit from tax deductibility of their effective maintenance payments to their children (students) instead of the present model of receiving a lump sum payment for children in tertiary education under a certain age ('Kindergeld').
- The students benefit from a loan with an income contingent repayment scheme.

Additionally, it is suggested to use the vouchers to pay tuition fees in higher education not per semester, but per credit. The modularisation induced by the Bologna process enables payments according to the use of resources instead of payments according to time spent in universities. This guarantees a fair treatment of part-time students and flexibility for students. Further, Dohmen's proposal is to allocate the fee revenues to the unit which organises the study programmes in order to guarantee incentives and competition, but to avoid individualisation of revenues.

#### *4.3. Inverse Generation Contract (Private University Witten/Herdecke)*

The first idea of the inverse generation contract<sup>2</sup> is to appeal to the solidarity of Witten/Herdecke's graduates. Those who benefit from their education by getting well-paid jobs should pay a contribution to support the newcomers who probably cannot afford tuition during their enrolment. Students are allowed to choose between up-front payment or something similar to a graduate tax, where payment is not linked to the volume of tuition fees (the instrument is different from the classical notion of a graduate tax, because it has not to be paid for a lifetime, but with a fixed percentage of income for a fixed period). The graduate tax is based on an individual contract. It leads to higher progressivity of repayment compared with an income contingent loan – a result of the intended solidarity and a feature leading to high acceptance among the students. The inverse generation contract means that payments are transferred from successful graduates to needy ones. The idea of the

generation contract is highly accepted, even among the alumni. But it has to be taken into account that in Witten/Herdecke there is an enormous lifelong identification with the alma mater due to the special profile of the institution and the high degree of commitment of students and graduates to certain shared values. Therefore there is some doubt that the model is applicable to larger parts of the higher education systems. Furthermore there are no empirical studies about potential disincentives to obtain employment resulting from progressivity in graduate tax payment.

The second idea is to establish new forms of student participation in connection with payment of tuition fees. Witten/Herdecke's students administer the whole system of tuition fees and graduate taxes. Therefore, students are able to influence resource allocation and institutional decisions. The fee revenue belongs to the 'Studierendengesellschaft' (organised as an NPO) and is transferred to the university by the students. The main goal is to avoid a pure supplier-customer-relation, where students take a passive consumer role. This danger is minimised by self-administration of the tuition fee system.

Furthermore, the model intends to create 'freedom of choice' in several respects. The income contingent payment ensures free access and free choice of occupation after graduation. The use of the graduate tax avoids incentives to focus on a salary as high as possible – there should be freedom to look for the most satisfying and not necessarily for the best-paid job. The fact that the payment does not depend on length of studies (lump sum up-front payment, graduate tax) ensures free choice of studies (instead of incentives to study merely under efficiency aspects). This is the opposite logic compared to the long-term students' fees.

#### *4.4. ExcellenTUM model (Technical University Munich)*

In 2002, the TU Munich started an internal discussion process about cost-sharing: What would happen if politics change and tuition fees are allowed? How should we prepare ourselves to prevent the implementation of models led by fiscal instead of quality objectives? The discussion resulted in a model<sup>3</sup> that presently has no chance of being implemented given the existing federal law.

The strategic message is 'quality comes first'. The TU Munich intends to establish a quality programme for excellent teaching: promote innovation, establish effective quality assurance, teach in small groups (competitive with the standards of international top universities), etc. The cost of this quality programme is calculated. The part of the cost not covered by public funds should be privately borne. Cost-sharing is a reaction to special benefits created for the students. This strategy is automatically linked with differentiated fees according to the service and quality level offered to the students (and with the right of higher education institutions to decide the fee volume, probably within a certain range defined by the state, see section 5.2).

To guarantee accessibility, the TU Munich intends to offer a mix of opportunities to refinance tuition: scholarships, well-paid jobs, conventional loans and a human capital fund. The human capital fund already has been started and offers money for student maintenance (Munich's cost of living is extremely high, social selection

takes place especially because of housing costs in the Munich area). With the human capital fund we find another form of income contingent repayment (see section 5.4).

## 5. MAIN POLICY ISSUES IN THE GERMAN DEBATE

In the description of different proposals and models several general topics of the tuition fee debate have already been mentioned. Among a great variety of aspects discussed, five points representing major policy issues in the German debate will be analysed in the following paragraphs and recommendations will be suggested.

- If analytical methods are used, the politically preferred model of long-term students' fees appears to be completely inadequate.
- There is an intensive dispute about unitary vs differentiated tuition fees (cost-sharing). Differentiation should be realised, but within a certain framework.
- In the German debate a strong preference for linking tuition fees with income contingent loans can be found. Income contingency must be considered as a precondition for the implementation of tuition fees in Germany.
- German higher education institutions and political decision makers develop some creativity in mobilisation of additional private money in connection with tuition fee models. Innovative models should be promoted now.
- The intended change in cost-sharing regimes must have an effect on the direction of means-testing of student finance.

### *5.1. Inadequacy of Long-term Students' Fees*

*Policy issue 1: Should the current model of long-term students' fees be sustained or are there problems?*

The discussion about the existing long-term students' fees leads to a debate about the principles for the establishment of tuition fees. As a result of this debate, the following checklist with principles can be generated (Ziegele 2001). The design of a tuition fee model should be evaluated by the following criteria:

- Revenue generated?
- Quantity enhanced, expansive effects?
- Quality increasing?
- Distributional justice promoted?
- Accessibility promoted?
- Positive incentive effects induced?
- Study length reduced?

- Competition enabled?
- Autonomous price policy enabled?
- Revenue diversification realised?
- Rates of return enhanced?
- Compatibility with other reforms in higher education ensured?
- Life concepts of students respected?
- Student participation in decision-making processes possible?
- Transparency of system given?

If these principles are used to evaluate long-term students' fees, this fee model proves to be completely inadequate:

- The model sends the wrong message. The blame is put completely on the students, so there are no incentive effects on the supply side to provide high quality teaching according to student preferences. There is even a 'perverse' financial incentive to earn fee revenue by keeping students as long as possible within the institution.
- The model contains a similar problem to a pollution tax. There is a conflict between the steering objective (avoid long-term studies) and the fiscal goal. In the ideal case where there are no longer any long-term students, the model provides no additional funding for increased quality or quantity.
- Since the fees are set at state level, there is no competition at the institutional level and price policy as part of university marketing is prevented.
- There are no loan systems or other means of refinancing tuition fees (the logic is: there should be no long-term students, so they do not need special loans). This could result in longer study duration because of the necessity to work.
- The obligation to pay tuition fees after a certain number of study years discriminates against part-time students. They pay as much as full-time students per semester, but they need less resources per semester (the formal status of part-time student in Germany does not exist, but it is estimated that up to one-third of the students study part time).

The arguments presented were derived from analytical considerations; there is no set empirical research about the effects (e.g. about the effects on the number of part-time students, who do not appear in German statistics).

Despite this negative evaluation, the model has been implemented in more and more states due to its political attractiveness described in section 3.3. The practical German way of dealing with tuition fees seems to be one of the worst cases. The only remaining (political) rationale is the symbolic or tactical aspect mentioned in section 3.3.

## 5.2. Differentiation of Tuition Fees

*Policy issue 2: Should there be a flat fee for all students or a differentiated fee design? Should differentiation be decided at the national, state or institutional level?*

In the case of a flat fee, each student pays the same sum per semester or per study programme as a whole. To answer the question, if a differentiation seems to be adequate, the criteria of differentiation have to be revealed. Tuition fees per student and semester could be differentiated according to:

- financial means of the student (see means-testing in section 5.5);
- student merit and performance;
- cost of discipline;
- market value of discipline/study programme;
- intended incentive effects (e.g. promoting a certain discipline where there is a corresponding shortage on the labour market);<sup>4</sup> and
- use of resources per semester (leading e.g. to a tuition fee calculation by module or credits).

The aspect of differentiation is closely linked with two design tasks:

- Should the design of tuition fee models be made at the national or state level?
- Should decisions about the fee level be made at the state or institutional level? Should universities use tuition fees for institutional price policy?

Focusing on the second design task, the current ‘mainstream’ in Germany favours a differentiated solution, mainly based on several virtues of differentiation (Kronthaler 2003; Canton and Vossensteyn 2001). If tuition fees reflect real market price, then market forces and steering effects will be able to work and fees will reflect market conditions and cost situations. Prices will serve as quality indicators, student resources will be allocated into the most beneficial study programmes and diversification of study programmes according to students’ preferences will be promoted. Furthermore, higher education institutions’ financial autonomy will be strengthened and university marketing will be possible. University strategies will be manifested in pricing policies, for example, price reductions are available as a marketing instrument to attract the best students.

Comparing these arguments with the alternatives of differentiation shown above, the ‘mainstream’ appears to be too narrowly focused. The range of differentiation rationales in the higher education sector is broader than pure market orientation. Incentive objectives or means-testing goals may lead to tuition fee policies differing from the market value approach. Adequate price differentiation seems to be a rather complex task. And what makes the design problem even more complicated is that objectives behind the alternative differentiation criteria could also be followed by

other instruments (e.g. means-testing through reduced loan repayment obligations for the best graduates).

The ‘mainstream’ arguments require a decision about differentiation made at the institutional level. But beyond these general arguments some specific German circumstances have to be taken into account:

- The German constitution highly values the notion of ‘*einheitliche Lebensverhältnisse*’ (similar living conditions in all parts of the country) as a guideline for government policy. Large tuition fees would conflict with this legal obligation. Obviously Germany will need a limitation on tuition fees set by the government (similar to the English system).
- In Germany there is very poor knowledge about rates of return to higher education. If student decisions about choosing certain higher education programmes are based on tuition differences, but not simultaneously on considerations of different benefits and returns, the choices will be misinformed. Flat fees in this case could be regarded as a typical ‘second best’ solution: information imperfections (missing differentiation of return perception) are compensated for by a second distortion, the flat fee. Human capital funds may show interesting implications in this context (see Palacios 2002 in section 5.4): if human capital funds are established at an institutional or disciplinary level, different rates of return will lead to differences in repayment conditions. The human capital fund conditions will be an instrument for signalling rates of return, so the students’ decisions will not be based merely on cost data.
- Despite the principle of ‘*einheitliche Lebensverhältnisse*’, costs of living and regional attractiveness of different parts of Germany differ enormously. Universities are located in eastern and western parts of the country, in big cities and rural areas, etc. Thus price differences will not only reflect quality levels, but also capitalise on the attractiveness of the location. Therefore the quality incentive effects of tuition fees are limited.
- Practical experience shows a deficit in developing a ‘culture of internal subsidy’ in German universities. For example, a market-oriented differentiation of tuition fees requires an internal subsidisation of disciplines with short-term student number decline, but expected cyclical enhancement of student numbers. In many cases this does not work since Germany is just starting to introduce competitive elements into higher education: deans for the first time realise ‘how much money they earn for the university’ and have a clear tendency towards claiming all this money for their faculty. Immediate faculty interests often dominate coordinated institutional strategic planning.
- A cost-oriented fee design could lead to problems with income contingent repayment. If for example all disciplines realise a strict

cost-sharing of 75% public share and 25% tuition fees, natural sciences and engineering will have extremely long repayment periods (see model calculations for two higher education institutions in Lower Saxony, Müller, Tiemeyer and Ziegele 2004).

Canton and Vossensteyn (2001) identify a few general impediments to competition in the higher education sector: limited student mobility, indivisibilities, economies of scale and lack of information. And probably the points are not too special since most of the international experience shows that the differentiation of tuition fees is a step taken years after the introduction of flat fees.

If the ideal notion of perfectly functioning markets is unrealistic in higher education, should we abandon the idea of differentiation? Again the theory of 'second best policies' (widely used in tax theory, Folkers 1987) is helpful. If the impediments to competition are completely irremovable a second best solution is recommendable. In other words, if price differentiation leads to negative effects (because it is not quality-oriented, etc.), the inevitable imperfections have to be compensated for by a second imperfection – the flat fee. But there are ways to make markets more functional, for example:

- instruments like rankings and information campaigns reduce information deficits;
- the differentiation range could be limited;
- the culture of internal subsidies has to be promoted by institutional management; and
- probably only parts of the system need to be centrally managed. For example, a nationwide loan programme to finance tuition fees could be established in order to create similar living conditions and promote transparency. Every German student then would have the opportunity to receive some basic financial support. At the same time tuition fees could be set at the institutional level (within certain limits; universities can decide on the tuition fee level, but the government sets a certain maximum limit of tuition fee volume – like in New Zealand or the UK. The corresponding loan should be high enough to cover tuition fees set at the upper limit of the tuition fee range).

Thus, in spite of some problems, tuition fee differentiation at the institutional level still seems to be a good idea – but the connection with other measures must not be neglected. The implementation of differentiated fees needs to be considered in relations to other developments.

It is also necessary to focus on the question of whether tuition fee systems should be nationally or state regulated. Advantages of state-based solutions include: the likelihood that a system will be initiated, political competition for the best solutions, respect of regional preferences and recognition of the different goals of tuition fee imposition mentioned above. Problems are caused by lack of transparency and complexity of the system, possibly leading to negative effects on student

participation or to inefficiencies in allocation. Additionally, different systems at the state level might create mobility barriers (contrary to the Bologna process which intends to enhance mobility throughout Europe).

### *5.3. Advantages of Income Contingent Loans*

*Policy issue 3: For Germany, is the income contingent loan the preferable type of tuition fee related loan scheme?*

All specific models discussed in section 4 include income contingent loans. This is no coincidence. The German debate is focused on a very close link between tuition fee imposition and creating some kind of loan system with income contingent repayment. The potential advantages of income contingent loans have been described in the literature (Chapman 1997 and in this volume). The main arguments are: the avoidance of repayment risks for graduates ('debt will never become unmanageable'); positive effects on participation (even in case of risk-averse individuals); transparency and efficiency of repayment schemes; links between educational benefits and payment obligations; the possibility to introduce distributional goals into the repayment; and the avoidance of problems associated with the lack of ability to repay. Taken together these factors are believed to prevent deterrent effects and problems of accessibility for lower income groups. The advantages hold even if theories of behavioural economics are applied (Vossensteyn in this volume).

For Germany we can only speculate about these advantages, because the systems do not exist – with the exception of Witten/Herdecke. Two empirical facts seem to support the presumed advantages: one, Witten/Herdecke has no problems with recruiting students; and two, the percentage of means-tested maintenance grant recipients at Witten/Herdecke does not differ from that at tuition free public universities (Cybulski 2003). But as argued above Witten/Herdecke is a quite special university, so no general conclusions will be possible from this empirical result.

There is another effect of income contingent loans that can be taken into account prior to implementation. If we use the realistic assumption of limited rationality of individuals, it is not sufficient to merely have a loan system which will not deter students in case of rational choice. The loan system also requires trust in its positive effects and has to avoid potential irrational fears of accumulating debt as a burden for life. The German debate proves that this trust can be established by income contingent loans. Even political opponents of tuition fees now use the argument "if fees are inevitable, then let's make the best out of it by linking them with income contingent loans". A 2003 opinion poll resulted in 72% of those sampled opposing tuition fees without a publicly supported loan system and 67% favouring tuition fees if they enhance university budgets and are linked with income contingent loans. These opinions suggest that income contingent loans – at least in Germany – are a precondition for change in the sharing of institutional costs. Income contingent loans have the potential to be a central element in cost-sharing policies.

Finally, it is important to realise that most of the additional positive effects expected of income contingent loans depend on the specific design of a particular

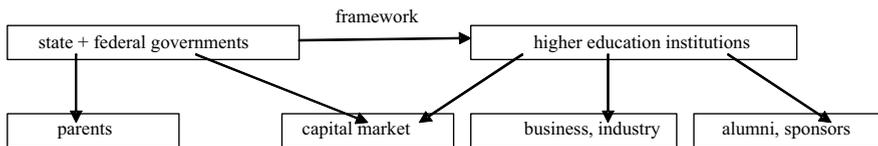
income contingent loan model. The social acceptance of accessibility aspects of the system depends on the income threshold for repayment and on the type of repayment scheme. For example, the human capital fund creates additional benefits by establishing contacts between investors and students. The Witten/Herdecke system promotes freedom of choice as described above. Therefore the design of an income contingent loan is a task that should not be underestimated. Some of the important design tasks are mentioned by Chapman (in this volume), for example, the handling of risk, administrative and collection issues, the communication of the concept by the government and the concept of debt forgiveness.

#### 5.4. Mobilisation of Private Money

*Policy issue 4: How can private money be mobilised for supporting students with respect to tuition fees?*

The mobilisation of private capital leading to a diversification of the financial basis is a general problem of ‘entrepreneurial universities’. But there is also a clear link to the tuition fee context. Private capital is necessary to ensure the financing of fee payments from students who are not able to afford tuition during their studies. Main instruments supported by private capital are loans and scholarships.

Who is responsible for the mobilisation of private money, and which sources are available? The following figure provides an overview of the relevant actors.



*Figure 2. Relevant actors in the mobilisation of private money*

Government can mobilise private sources by creating favourable conditions for parental contributions. This is especially important in connection with the intended shift to income contingent loans. A shift away from parental responsibility endangers the main financial source. A clear signal should be sent that up-front payment with parental support is still desirable and publicly supported. CHE and Stifterverband (1999) suggested subsidisation of educational savings through the tax-transfer system. A means-tested, degressive yearly premium should be paid on educational savings. The state subsidy should be realised when the savings are being used for educational purposes. The amount of subsidised savings should limit the availability of state-provided income contingent loans – so state support is directed to the source of study finance, but only given once. This combination of instruments allows the implementation of income contingent loans without denying the opportunity of up-front payments. Parental responsibility is maintained, but an

income contingent loan gives the students the possibility of independence and offers more opportunities.

Additionally, political decision makers should create a legal framework which enables higher education institutions to generate private capital more easily. A major German example is the establishment of universities with the legal status of foundations in the state of Lower Saxony. Besides the intended reduction of state regulation, the legal construction of a foundation aims at the possibility of acquiring additional private foundation capital.

Finally, the state and federal governments could use the capital market to establish income contingent loans or other forms of loans. Concerning the German problems with the EU, deficit criteria enhanced public debt financing of loans is not realistic. The only chance lies within off-budget solutions, for example by using public banks like the federal bank 'Kreditanstalt für Wiederaufbau' (which is already responsible for special loans for student maintenance).

The Heinrich Böll Foundation (the political foundation of the German Green Party) has recently suggested the establishment of a 'national foundation for good and innovative teaching' run jointly by federal and state governments. The basic capital should be supplied by selling gold reserves of the Bundesbank, but it is intended to additionally mobilise private capital from all kinds of donors for institutional education finance. It is suggested that the foundation should establish a procedure similar to the research funding of the Deutsche Forschungsgemeinschaft (DFG). The probability of the success of this proposal seems rather low. Why should alumni or companies give money to a national institution without knowing exactly for what purposes and at which institution it will be used? The willingness to support higher education finance depends on the direct visibility of effects.

This leads to the responsibility of higher education institutions: alumni, business firms and other organisations could be asked to support loan systems, scholarships or directly support teaching efforts. With respect to the German situation, three factors need to be pointed out:

- German universities have a very poor tradition of alumni relations. An empirical study (Ziegele and Langer 2001) at a number of universities and *Fachhochschulen* showed that the basis for an alumni policy has to be laid during the study period – an aspect which is neglected by German universities, leading to low student retention. Among other results, the study showed that 35% of the graduates interviewed had no involvement in alumni programmes. Before expecting substantial revenues from alumni, universities have to invest in gaining their support and identifying and maintaining contact with their graduates.
- There are some employment fields with well-established links to higher education, especially in some states with respect to the so-called 'Berufsakademien', which incorporate the concept of German dual vocational training into higher education. This involves students combining on-the-job training where they earn a salary with a higher education degree.

- There are almost no higher education institutions with a clear institutional strategy for raising money for scholarships. Activities concerning scholarships are fragmented and not part of an integrated, joint effort of the universities. One systematic strategy is widely discussed in Germany, but not yet adopted: the ‘Praxisscheck’ model of the University of Leoben in Austria.<sup>5</sup> In this model, institutions, companies or private persons provide a certain number of cheques, each one covering the tuition fee per student per semester (€365). The cheques are given to the university; the sponsor is able to decide if the cheque should be used in a certain discipline or only for students below a certain family income threshold. All sponsors are announced in the university’s annual report and on the university web site. The students receiving the cheque have to fulfil certain performance criteria defined by a university commission and are obliged to accept a study-related job for two weeks minimum per semester (sponsors have the possibility of offering jobs in connection with the cheque). The cheques are first allocated to all students in the second semester (with merit-testing). If there is a sufficient number of cheques, students from the third to the fifth semester would also be able to benefit (taking into account additional performance criteria). After the fifth semester, the cheques are linked with individual ‘coaching contracts’ between students and companies.

Since tuition fees have not yet been implemented, the low level of mobilisation of private capital seems to be understandable. But universities have to be prepared for the next phase of tuition fee implementation, especially by establishing alumni relationships, developing a strategy for scholarships and creating a student retention policy as soon as possible.

Finally, there is another alternative: universities might engage in a capital market funded loan system. A special form is the ‘human capital fund’ mentioned above as part of the TU Munich model.<sup>6</sup> Sources of human capital funds are investments of companies and private investors or foundations who buy shares in the fund. The fund is used to finance maintenance or tuition fees of students. The students have to repay certain percentages of their income after graduation. The repayment should guarantee an individual rate of return for the investors. The idea is to offer not only a financial rate of return, but to create additional benefits for the investors:

- the creation of a social rate of return could induce an additional motivation (‘earn money with socially desirable activities’);
- an ‘emotional’ rate of return is offered to private investors (mentoring models, meetings with supported students, etc.); and
- companies benefit from the possibility of recruiting staff from the sponsored students and from building a positive image.

Practical German experience with human capital funds is limited to elite higher education institutions with excellent job perspectives for graduates. The question is: Would such a system be able to work for a larger part of the higher education sector, including universities, with higher percentages of 'bad risks'? The feasibility of human capital funds is improved by risk-pooling over a larger number of students and by creating a link with new access mechanisms. For example, the TU Munich simultaneously implemented new modes of student selection to ensure student quality. The access mechanism works as a guarantee mechanism for high rates of return.

Human capital funds may have another interesting implication (Palacios 2002). A human capital contract could be a useful instrument to make scholarship models more efficient. If donors are willing to establish scholarships for a certain higher education institution they might give their donation in the form of establishing a human capital fund with income contingent repayment obligations. This leads to partial repayment of the grant. If sponsored students sign a human capital contract and, for example, pay back an average 50% of the grant, the number of beneficiaries could be doubled with a constant sum of money. The expansion of the number of scholarships without increasing the total financial volume would result in greater efficiency.

### *5.5. Directions of Means-testing*

*Policy issue 5: What means-testing measures are available with respect to different tuition fee schemes?*

The introduction of tuition fees without some kind of means-testing seems to be socially problematic. A means-tested variation of the private cost share can be seen as a precondition to ensure accessibility to higher education for all social groups. Furthermore means-testing is an efficient method to achieve redistributive goals, since subsidies are concentrated on relevant groups.

The main instrument of means-testing in Germany is the BAföG-System of maintenance support: a general maintenance subsidy and a loan are granted according to individual and family income. Additionally there are specific subsidies, for example a subsidy for student housing. Access to a subsidised room again depends on family income. Means-testing is traditionally defined as special treatment of students with low income and socio-economic background. According to this understanding, up-front tuition fees coupled with means-tested exceptions would be the right approach.

Under German circumstances, several arguments mentioned above favour income contingent loan solutions. The essential question is: Will the imposition of tuition fees combined with income contingent loans exclude means-testing measures? It will be argued that the direction and methods of means-testing have to be changed. Means-testing in the case of income contingent loans is related to graduate lifetime income and not to parental income. But nevertheless, it is still means-testing. The traditional notion of means-testing limited to the context of

up-front payment of tuition fees seems to be too narrow. Means-testing is inevitable to secure open access to higher education, but is not necessarily linked to parental income.

With respect to both traditional and income contingent loan models, the possibilities of means-testing in student finance could be expanded (Tekleselassie and Johnstone 2004) as demonstrated in the following table.

For example, the current system of long-term students' fees works with categorical indicators. Payments could be deferred with respect to child rearing obligations, illness or minority status, etc. This system has efficiency problems since the model requires complex inspections of individual life circumstances (combined with much lower revenue than a general tuition fee).

*Table 3. Possibilities of means-testing in student finance*

<i>Category</i>	<i>Instrument for means-testing</i>	<i>Examples for specific design aspects of means-testing</i>
Means-testing of subsidies	Tuition fee subsidy	Reduction of tuition fees according to individual/family income No fee payment under income threshold Reduction of tuition fees according to categorical indicators (children, illness, ethnicity)
	Maintenance subsidy	Specific subsidies (housing, free meals, educational savings) General maintenance grant according to individual/family income Lump sum grant or differentiation of grant according to income
	Tax subsidy	General regressive tax deduction of educational expenses Special tax reductions (e.g. for educational savings) for low income groups
Means-testing of loans	Accessibility of loans	Accessibility according to individual/family income
	Loan conditions	Interest subsidy
	Repayment schemes	Tax deductibility Income contingent repayment Debt forgiveness Progressivity of repayment scheme

A clear concept of how to combine the different methods of means-testing is needed. The choice of a special instrument for means-testing depends on the following.

- Distributional goals: Is redistribution between households or open accessibility intended? Or is the promotion of a certain social group

intended? The first goal would probably require a combination of general maintenance grants with tuition fee reductions, the second one allows the use of income contingent loans. The third objective requires categorical indicators for fee reduction.

- Normative orientation: Are students considered as part of parental households (e.g. leading to degressive subsidies of educational savings) or as independent individuals on a certain career path (e.g. leading to progressive income contingent loans)?
- Efficiency: Is there an integrated, efficient way of administrating different means-testing elements? For example, the grants for students receiving means-tested maintenance support could be increased by the amount of tuition fees.
- Fiscal goals: Means-testing can be used to concentrate subsidies on needy groups. For example, an income contingent loan with means-tested access limits the benefits of the repayment scheme to low income students, but leads to double means-testing (family income + graduate income) and probably to a conflict with administrative efficiency.
- Distortionary effects: Is means-testing used for special incentive effects or should distortionary effects be avoided? For example, if social problems are mainly seen in the area of housing, a special subsidy for student housing could cause a deliberate distortion of student choice (because applying for a subsidised room is the only way to get the subsidy). A general maintenance grant should be preferred if distortions are to be avoided.

If these criteria are used, it becomes quite clear that the shift from the current German system to a tuition fee/income contingent loan model would change the nature of means-testing. The main distributional goal in the new model will be accessibility. The effect on students' family income is of minor importance. Students have to be regarded as independent individuals instead of as part of their families. And there is a tendency to avoid distortionary effects and not to connect subsidies with particular student behaviour.

If these arguments reflect reality then the importance of means-testing measures connected with income contingent loans will rise.

## 6. SUMMARY

In Germany, tuition fees for state-run universities are forbidden by federal law. Nevertheless, if opportunity costs are included in the calculation, the private cost share is rather high. As the current study period is so long, tuition fees have the potential to lower effective private cost shares. It is therefore logical that a tuition fee debate has emerged over the last few years. The development of the debate and the tactical movements of the relevant players have been explained by public choice theory. The debate has led to a variety of models. An analytical approach to evaluate the models requires a clarification of the strategic goals behind the concepts. The

range of issues starts with quality vs quantity objectives, includes steering effects, participation in decision making and extends to the Bologna process and lifelong learning goals.

A selection of models discussed in Germany and representing different strategic goals has been presented in detail. The models have shown the close relationship between tuition fees and other aspects of higher education reform, such as quality management, development of lifelong learning and new and more effective modes of student participation.

Criteria to evaluate tuition fee models have been suggested and related to the existing model of long-term students' fees. It appears that the German status quo is one of the worst of all possible cases with respect to tuition alternatives.

Beyond the consideration of specific models, there is a variety of general topics in the German tuition fee debate. The first one is the question of differentiation of tuition fees at the institutional level. In the German context this seems to be preferable, but only in connection with other measures. It seems to be quite clear that the major instrument to refinance tuition fees and to ensure accessibility has to be income contingent loans. The implementation of income contingent loans leads to a shift in means-testing from the consideration of family income to the consideration of graduate lifetime income, connected with new instruments for means-testing. A danger is the loss of parental support as a major funding source.

The socially acceptable implementation of tuition fees requires loans and scholarships. These instruments should lead to a mobilisation of private capital. Sources of private capital have not yet been intensively used. Instruments like human capital funds or strategically oriented scholarship systems promise workable approaches to overcome these deficits. Various schemes are being experience with at the moment.

The preceding analytical considerations are important for the political outcome of the tuition fee debate. If the federal ban fell, tuition fees would be implemented during a period of restricted public budgets. There is an enormous danger that models will not follow educational policy rationales, but will simply be directed towards the quick generation of money to supplement public budgets. If politicians make this mistake, the sharing of institutional costs will lower the rates of return, endanger accessibility and cause damage to the German higher education system. In this worst case scenario, the German Education Minister's worries quoted at the beginning of this chapter would come true. This chapter however has shown how this danger can be avoided. Higher education researchers have to provide as much information and analysis as possible in order to create a rational basis for tuition fee design.

## NOTES

- 1 According to an agreement of the Standing Conference of German education ministers, consecutive, non-consecutive and further education masters are distinguished. Consecutive master programmes are those that build on a specific bachelor programme and do not exceed the limit of five years total for both programmes (3+2 or 4+1).
- 2 For details of this model (implemented in Witten/Herdecke since 1995) see <http://www.studierendengesellschaft.de/>.

- 3 See <http://www.tum.de/ExzellenTUM/>.
- 4 Vossensteyn (in this volume) indicates limited impact of financial incentives on students' choices and explains this by approaches of behavioural economics.
- 5 See <http://www.unileoben.ac.at/>.
- 6 This is also implemented in two private German business schools, see <http://www.career-concept.de>.

## REFERENCES

- Buchanan, James M. and Gordon Tullock. *The Calculus of Consent*. University of Michigan: Ann Arbor, 1962.
- Canton, Erik and Hans Vossensteyn. "Deregulation of Higher Education: Tuition Fee Differentiation and Selectivity." In CPB and CHEPS (eds). *Higher Education Reform: Getting the Incentives Right*. The Hague: SDU, 2001, 67–84.
- Chapman, Bruce. "Conceptual Issues and the Australian Experience with Income-Contingent Charges for Higher Education." *Economic Journal* 107 (1997): 738–751.
- CHE and Stifterverband (eds). *Modell für einen Beitrag der Studierenden zur Finanzierung der Hochschulen (Studienbeitragsmodell)*. Gütersloh, Essen: CHE, 1998.
- CHE and Stifterverband (eds). *InvestiF und GefoS – Modelle der individuellen und institutionellen Bildungsfinanzierung im Hochschulbereich*. Gütersloh, Essen: CHE, 1999.
- Cybulski, Sylvia. "Wissen gegen Kohle? Über geldwertes Studieren und Finanzierungsbeiträge an der UWH." In Bayerische Rektorenkonferenz (ed.). *Studienqualität gestalten – Neue Wege der Studienfinanzierung*. München: Bayerische Rektorenkonferenz, 2003, 40–44.
- Dohmen, Dieter. *Finanzierung lebenslangen Lernens von der Kita bis zur Weiterbildung*. FIBS-Forum Nr. 22. Köln: FIBS, 2004.
- Dräger, Jörg. "Bildungsdarlehen statt BAföG – Plädoyer für eine Grundlegende Reform der Studienfinanzierung." In Bayerische Rektorenkonferenz (ed.). *Studienqualität gestalten – Neue Wege der Studienfinanzierung*. München: Bayerische Rektorenkonferenz, 2003, 21–25.
- DSW (ed.). *17. Sozialerhebung des Deutschen Studentenwerks*. Bonn: BMBF, 2004.
- Folkers, Cay. "Wandlungen der Verbrauchsbesteuerung." In Häuser, K. (ed.). *Wandlungen der Besteuerung*. Schriften des Vereins für Socialpolitik, N.F. No. 160. Berlin: Duncker and Humblot, 1987, 89–212.
- Grüske, Karl-Dieter. "Verteilungseffekte der öffentlichen Hochschulfinanzierung in der Bundesrepublik Deutschland – Personale Inzidenz im Längs – und Querschnitt." In Lüdeke, R. (ed.). *Bildung, Bildungsfinanzierung und Einkommensverteilung II*. Schriften des Vereins für Socialpolitik, N.F. vol. 221/II. Berlin: Duncker and Humblot, 1994, 71–147.
- Grüske, Karl-Dieter. "Wer finanziert wem das Studium? Verteilungswirkungen der Hochschulfinanzierung." In Dohmen, D. and B.A. Cleuvers (eds). *Nachfrageorientierte Bildungsfinanzierung*. Bielefeld: W. Bertelsmann Verlag, 2002, 253–279.
- HIS. *Indikatoren zur Ausbildung im Hochschulbereich*. Hannover: HIS, 2004.
- Kronthaler, Ludwig. "ExcellentTUM – ein ganzheitlicher Konzeptvorschlag zu Studienqualität und Studienfinanzierung." In Bayerische Rektorenkonferenz (ed.). *Studienqualität gestalten – Neue Wege der Studienfinanzierung*. München: Bayerische Rektorenkonferenz, 2003, 26–32.
- Müller, Ulrich, Ralf Tiemeyer and Frank Ziegele. "Finanzielle Effekte von Studiengebühren. Modellrechnungen am Beispiel der Universität Hannover und der Fachhochschule Osnabrück." CHE Working Paper No. 58. Gütersloh: CHE, 2004.
- OECD. *Education at a Glance 2002*. OECD: Paris, 2002.
- Palacios, Michael. "Human Capital Contracts – 'Equity-like' Instruments for Financing Higher Education." *Policy Analysis* 462 December (2002): 1–12.
- Sturm, R. and G. Wohlfahrt. *Umverteilungswirkungen der öffentlichen Hochschulfinanzierung in Deutschland*. Gutachten im Auftrag des Deutschen Studentenwerks. Graz: DSW, 2000.
- Tekleselassie, Ababayehu and D. Bruce Johnstone. "Means Testing: The Dilemma of Targeting Subsidies in Africa Higher Education." The International Comparative Higher Education Finance and Accessibility Project Discussion Paper, Buffalo, NY: Center for Comparative and Global Studies in Education, SUNY at Buffalo, 2004.

- Ziegele, Frank. "The Student Contribution Model." In Vossensteyn, Hans. (ed.). *Education Crediting and Insurance*. Proceedings of the Seminar on Education Crediting and Insurance, Enschede: University of Twente, 1998, 43–49.
- Ziegele, Frank. "Mittelvergabe und Zielvereinbarungen – Finanzierungsinstrumente eines Neuen Steuerungsmodells im Verhältnis Staat – Hochschule." In Titscher, S., G. Winckler, H. Biedermann, H. Gatterbauer, S. Laske, R. Moser, F. Strehl, F. Wojda and H. Wulz (eds). *Universitäten im Wettbewerb – Zur Neustrukturierung österreichischer Universitäten*. München, Mering: Hampp, 2000, 331–381.
- Ziegele, Frank. "Remarks on the Implementation of Tuition Fees in Germany." The International Comparative Higher Education Finance and Accessibility Project Working Paper. Buffalo, NY: Center for Comparative and Global Studies in Education, SUNY at Buffalo, 2001.
- Ziegele, Frank, Peer Ederer, Christian Kopf and Philip Schuller. "Umverteilung von unten nach oben durch gebührenfreie Hochschulausbildung." CHE Working Paper No. 26. Gütersloh: CHE, 2000.
- Ziegele, Frank and Markus Langer. "Alumni-Arbeit beginnt im Studium." In Stifterverband für die Deutsche Wissenschaft (ed.). *Strategien der Absolventenarbeit an Hochschulen*. Dokumentation des Symposiums "Die Entdeckung der Alumni" vom 6–7 December 2000 und des Wettbewerbs "AlumniNetzwerke." Essen: Stifterverband, 2001, 46–51.
- Ziegele, Frank, Ulrich Müller, Yorck Hener and Lars Hüning. "Autonomie und Zukunftssicherung für das Studentenwerk Hamburg – Bericht und Empfehlungen." CHE Working Paper No. 56. Gütersloh: CHE, 2004.

ACCESSIBILITY AND EQUITY IN A STATE-FUNDED  
SYSTEM OF HIGHER EDUCATION:  
THE FRENCH CASE

1. INTRODUCTION

Presently, France appears to have remained out of the worldwide debate on the reduction of the share of the state in the funding of higher education. Moreover, higher education is not really on the political agenda in France at this moment. A debate was publicly organised in 2003 on the future of the French education system, but surprisingly it did not deal with universities and higher schools. The main focus stayed on compulsory education, with some insights regarding upper secondary education.

The relative absence of higher education in the political arena could paradoxically be due to the fact that it remains an extremely sensitive topic in French politics. The student riots of May 1968 still remain a warning for many politicians. Other student protests since then have also had serious political consequences, for example in 1986, when the Education Minister had to resign under the pressure of students fighting a project aimed at organising selective entrance to universities. More recently, in autumn 2003, the Education Minister had to back down on a reform of the organisation of universities, intended to increase their autonomy and to create in each university a board of trustees external to the institution. Once again, the government did not dare face the protests from student and faculty unions.

At the same time, everybody seems to accept a complex system, almost totally state funded, with a strongly selective elite sector dominated by affluent sectors of the society, and a university sector, open to all secondary degree holders, but with a rigorous selection. Higher education does not represent a financial priority for the state. International comparisons reveal that the national effort towards higher education is lower than the OECD average, with a marked difference when considering the share of private funding.

Despite several attempts, private funding of public universities is kept out of the debate, and student loans are almost non-existent. The growing international pressure and the poor ranking of the country in the international league tables are the only factors likely to bring back the political debate on the issues of higher education funding.

After presenting the main features of the French higher education system, we shall describe the present structure of financial support for students and discuss the

prospects for change and diversification in funding especially from the point of view of a wider sharing of the cost of higher education.

## 2. THE FRENCH HIGHER EDUCATION SYSTEM

In France, what is defined as higher education comprises short vocationally oriented programmes in universities, secondary schools and independent institutions, as well as longer and more general programmes offered by universities and independent 'higher schools' (*grandes écoles*). This situation stems from a long tradition of creating new institutions whenever new needs arose. Even before the abolition of the universities during the French Revolution, the state used to organise the training of its qualified manpower by establishing specialised institutions. Universities, in the usual sense of autonomous comprehensive institutions, appeared only in the second half of the twentieth century and were allowed to offer programmes in most fields of higher education in the following decades.

### 2.1. *Institutions and Programmes*

Today, the higher education sector comprises:

- Eighty-four public sector universities, including three national polytechnic institutes and three technology universities. They differ widely in size, their enrolments ranging from 1,000 to 40,000 students, with an average of 15,000. Altogether, they enrol nearly 1,425,000 students. They offer a large variety of programmes: short vocational 'technician' programmes in *instituts universitaires de technologie* (IUTs), long programmes in engineering and business administration as well as traditional studies in natural sciences, social sciences, arts and humanities, medicine and law.
- Twenty-eight teacher training university institutes (*instituts universitaires de formation des maîtres* – IUFM), formally independent but closely related to universities, with a total enrolment of nearly 90,000 students.
- A small number of private (mostly catholic) universities (5) and colleges (14), enrolling less than 1% of the students (about 22,000 students).
- About 500 higher schools with 200,000 students. They can be private, public or enjoy a mixed status like institutions created and funded by local chambers of commerce. They tend to specialise in a few fields, which were not offered traditionally in universities: engineering, agriculture, veterinary medicine, business administration, architecture and fine arts. They are much smaller than universities: in engineering schools, for example, enrolments range from less than 100 to 3,500, with an average size of 300 students.

- Independent institutions offering shorter programmes in health and social services (training of nurses, midwives, social workers, special education staff, etc.) enrolling more than 100,000 students. Most of these schools are controlled by the Ministry for Health and Social Affairs.

According to the prevailing concept of higher education in France, two types of programmes organised and taught in upper secondary schools (*lycées*), either public or private, by secondary school teachers, are also included:

- Special preparatory programmes called *classes préparatoires aux grandes écoles* (CPGE), usually highly selective and leading to *grandes écoles*. They constitute the traditional first stage of study towards engineering or business schools, the elite track in French higher education. More than 70,000 students are enrolled.
- Short vocational programmes, similar to IUTs, called *sections de techniciens supérieurs* (STS) and leading to a higher technician diploma (*brevet de technicien supérieur* – BTS) with enrolments of about 245,000 students.
- Postgraduate studies and doctoral programmes are offered only by public universities. Nevertheless, higher schools increasingly seek agreements with universities to take part in postgraduate programmes.

## 2.2. Some Data on Quantitative Aspects

### 2.2.1. Enrolments

Enrolments dramatically increased from 1.2 million students to 2.3 million from 1980 to 1995, then remained fairly stable due to demographic factors and the stabilisation of the age groups completing secondary education at around 70% (short of the official target of 80% set in the 1980s).

When looking at the share of the enrolments of the different types of institutions, the most striking result is the growing weight of selective institutions compared to universities (see table 1). Where the universities enrolled 67% of all students in 1980, their share decreased to 61% in 2002. Some sectors grew very fast, such as business schools (+250%), university engineering schools (+210%) and short vocational programmes (STS) (+240%). As a consequence, selectivity of the sector as a whole has lowered substantially.

### 2.2.2. Financial Data

For the different education levels taken together, the average cost per student, at constant prices, has increased annually by 2.4% since 1975. But during this period, the evolution did not follow the same trend for each level considered separately. Thus, the cost increased by 96% for the primary, by 76% for the secondary and only 29% for the tertiary level.

*Table 1. Enrolments in higher education during the last two decades (000,000 students)*

	1980–81	1990–91	2003–04
Preparatory programmes (CPGE)	43	68	75
Vocational higher education in secondary schools (STS)	68	199	234
Vocational higher education in universities (IUT)	54	74	114
Universities (ex IUTs and engineering programmes)	796	1,092	1,373
Engineering programmes	37	58	105
Of which in universities	8	11	25
Business schools	16	20	56
Schools for nursing and social work	92	74	117
Other institutions	76	132	181
Total	1,182	1,717	2,255

In 2002 a university student costs less on average than a lower or an upper secondary student (€6,850, €7,110 and €9,060 respectively). There are also large differences between higher education institutions. The cost per student is €9,100 in an IUT, €10,870 in an STS, €11,910 in an engineering school and €13,220 in the special preparatory programmes.

The average expenditure per higher education student is slightly under the OECD average (\$8,373 compared with \$11,909 in 2000). It amounts to 33% of GDP per capita, well below the average for the OECD countries (42%),<sup>1</sup> USA (60%), Sweden (60%), Germany (40%) and the United Kingdom (40%).

Domestic expenditure on higher education represents 1.2% of GDP, at €18.9 billion, compared to 2% in the USA. The evolution has been different from period to period. The share of higher education in the domestic expenditure on education rose from 1975 to 2003 (from 14.2% to 17%) (see table 2).

*Table 2. Domestic expenditure on higher education*

	1975	1985	1995	2003
Current prices (in €billion)	2.1	8.0	15.4	18.9
2003 prices (in €billion)	8.0	11.7	17.1	18.9
As share of domestic expenditure on education (%)	14.2	15.7	16.9	17.0
Average expenditure per student (in €2003)	6,560	7,220	7,440	8,370

Source: DEP 2004

Over the entire period, domestic expenditure on higher education was multiplied 2.4 fold, but in the context of almost a doubling in the population concerned, average expenditure per student only increased by 25%, reaching €8,370 in 2003. At the same time, the average expenditure per pupil in primary and secondary education taken together rose by 82%.

As in other European countries, higher education is mainly state funded. The share of public funding is 86% in France and 95% in the Netherlands and Denmark. The share of the Ministry of Education in the total funding reaches 70% while the regional authorities finance 6% of the total expenses, and the households 8%.

### 3. STUDENT PUBLIC FINANCIAL SUPPORT SYSTEM

The French public higher education system is founded on two principles: free tuition and the financial responsibility of the family.

- *Free tuition* (in order to create equal access). Students do not have to pay for their education. They are charged fees for registration or specific services but not for tuition. Fees are set annually by ministerial order and institutions have no power to change their level.
- *Financial responsibility of the family*. Families are expected to maintain their children during the course of their studies. The family's duty is written into the law and constantly restated by the courts. When their income is too low for them to support their child's cost of living, the state contributes through maintenance grants. Grants are means tested and their level is set in relation to the family's income and needs. Students who receive a grant do not pay registration fees.

The aim of the student support system is therefore to allow young people from poorer families to access higher education when they are academically qualified. The *Baccalauréat*, taken at the end of upper secondary education and formally a degree awarded by the universities, gives access to most university programmes. All programmes requiring this degree for entrance are defined as higher education programmes. Higher education thus encompasses different types of study, from short vocational programmes to the doctorate. The student population is therefore quite heterogeneous. This heterogeneity increased over time, as democratisation took place and new types of programmes were created.

The main features of the system of public support for students have remained basically the same over the last 30 years while the student population has undergone substantial change. This system has become both costly and inequitable. A reform of the public student aid scheme has been on the political agenda for many years.

The French student public support system is funded and operated by the state, partly by the Ministry of Education, through the regional offices of *Centre national des oeuvres universitaires et scolaires* (National Centre for Student Welfare), a national agency, and partly by other state administrations such as the social security agencies. Local authorities, although they may add to the state provision by developing their own financial support schemes, had no legal responsibility for student welfare until 2004 when funding of student accommodation was transferred to the cities.

The state supports students and their families through a mixture of direct aid, indirect aid and other types of aid (see table 3). Direct aid consists of financial aid

paid directly to the students. It includes grants, scholarships and other monetary benefits. Indirect aid does not go to students but helps them or their families to meet their cost of living. It comprises either subsidies towards goods and services bought by students (food, accommodation, transportation, health insurance, etc.) or other expenditure that lowers their cost of living. Other types of aid include tax benefits, a subsidised social security scheme and various benefits allocated by local authorities and universities.

Table 3. Public funding of student financial support

Type of support	Total amount 1995 (€million)	Total amount 2003 (€million)	Evolution 1995–2003	
			Current prices %	Constant prices %
<i>I. Support from state</i>	3,129.5	4,018.4	28.4	15.5
A. Support from budget	2,062.4	2,746.4	33.2	19.8
(1) Direct support	1,787.8	2,389.5	33.7	20.3
• Grants	927.7	1,291.3	39.2	25.3
• Housing benefit	860.1	1,098.2	27.7	14.9
(2) Indirect support (mainly university restaurants, halls of residence)	274.6	356.9	30.0	17.0
B. Tax relief	1,067.1	1,272.0	19.2	7.3
Deductible income for dependent children who are students	942.1	1,100.0	16.8	5.1
Lump sum tax relief for children enrolled in higher education institutions	125.0	172.0	37.6	23.8
<i>II. Other public support (mainly from social funds)</i>	381.2	448.4	17.6	5.8
Grand total	3,510.7	4,466.8	27.2	14.5

Source: DEP 2004

### 3.1. Direct Aid to Students

#### 3.1.1. Grants

Means-tested grants (*bourses sur critères sociaux*) are allocated on the basis of a complex formula taking into account the taxable income of the student's parents (except if the student is married or has children), as well as the number of their dependent children (and the number of children attending higher education) and the distance from the parental home to the institution (within a range of 30 to 250 kilometres). In 2003, about 470,000 grants were paid ranging from about €1,300 to €3,500 a year, with an average of €2,400. The grants are paid on a monthly basis. About 28% of the total number of students receive a grant of this type. Only

full-time students enrolled towards first degrees are eligible ('first or second cycle' as well as engineering or medical studies).

Grants are increased above the nationally stated amount for students resuming their studies after military service or maternity leave. There is also a grant supplement for students living in the greater Paris area, in Corsica or in overseas regions, in order to cover higher transportation costs.

A new sort of grant, the zero-rated grant, was introduced in 1998. Students who qualify for this grant do not get any money but they benefit from the 'status' of grant-holder which qualifies them for exemption from student fees and social security contributions. The loss incurred by universities because of such exemptions is compensated from the state budget.

The great bulk of these grants is awarded by the Ministry of Education, but other ministries allocate similar grants to students enrolled in the institutions of higher education they control, especially the Ministries for Agriculture (about 10,000 students aided) and for Culture (6,000 students).

Students enrolled in private institutions that are recognised by the state are eligible for higher education grants.

### 3.1.2. Scholarships

Scholarships (*bourses sur critères académiques*) are mainly awarded to postgraduate students on the basis of their academic merit. About 6% of postgraduate students (13,000 students) receive scholarships amounting to about €3,600 a year. A new small scholarship scheme was introduced in 1998 with the aim of encouraging very bright undergraduate students. Grants are awarded to those passing their *Baccalauréat* with the highest distinction (*mention très bien*) and wishing to enter schools training the elite of the civil service. There are 400 scholarships of €6,000 each available annually.

Postgraduate students eligible for these scholarships are registered in one of the following programmes:

- preparation for entrance examinations to higher public administration (*bourses de service public*);
- preparation for secondary school teacher examination (*bourses d'agrégation*);
- research postgraduate programme (*Diplôme d'études approfondies*);
- vocational postgraduate programme (*Diplôme d'études supérieures spécialisées*).

### 3.1.3. Research Grants

Although they are not considered as part of student support, these research grants should be mentioned here. About 40% of research students preparing for a PhD are funded through research grants awarded by the state, by international organisations or by industry. The proportion of funded research students varies greatly from one discipline to the next; on average, in science and technology programmes, 80% of

PhD graduates have some kind of such funding, compared to one-third in law, business and economics and less than one-fifth in arts, humanities and social sciences.

#### 3.1.4. *Salaries Paid to Pre-recruited Civil Servants*

Although these payments should not qualify as student support, it is usual in France for salaries paid to students training for specific jobs in the civil service to be treated in a similar manner to grants. In some *grandes écoles*, like military schools (e.g. *Ecole Polytechnique*) or schools of public administration (like *Ecole Nationale d'Administration*), students who pass the entrance examination are considered as public employees and receive a salary. In return, they pledge to remain in the public sector for a given amount of time (5 to 10 years). If they leave the public sector during that period, they are asked to repay part of the funds they received as students. In IUFM (teacher training institutions), students are paid from the second year but are not bound to serve the state.

#### 3.1.5. *Loans*

Loans to students are considered a form of public aid when they are available to students on special terms that are made possible by some public or private subsidisation. The amount of aid is the difference between these loans and the cost of 'ordinary' bank loans. The state can subsidise loans in three ways: by forgoing interest payment or by enabling loans to be made at interest rates below market rates; by allowing deferred repayment that is more favourable than market conditions; or by guaranteeing the loans and therefore accepting to pay for defaulting borrowers.

#### 3.1.6. *Public Loans*

A limited scheme for public student loans has been in operation since 1933. These loans (*Prêts d'honneur*) funded by the Ministry of Education and managed by the *Centre des Oeuvres Universitaires* are interest free and not guaranteed; they must be repaid within 10 years of completion of studies. The amount is fairly small (€800 to €3,000) and can be taken only once. The number of beneficiaries is very low (about 4,500 in 1998–99) for a total amount of €838,000 (De Foucauld and Roth 2002). There is no information on the default rate.

#### 3.1.7. *Guarantee of Private Loans*

Apart from allowing overdrafts on their accounts, French banks have been offering medium-term loans to students for some time. They require collateral or some sort of guarantee, usually provided by the students' parents. The rates are quite attractive.

A proper student loan scheme launched in 1992 by the government never took off. It consisted of a system of guarantee of private loans by a state fund. The banks were not really interested and they offered loans at rates higher than their 'ordinary' student loans. The number of applications was almost nil in the first years and the

guarantee fund has hardly been used so that the amount of outstanding loans is negligible.

### *3.1.8. Housing Benefits*

The beginning of the 1990s saw a widening of public financial support for accommodation. In 1991, entitlement to accommodation allowances, *Allocation de Logement Social*, was extended to everyone, albeit with an income ceiling. Young inactive people are the main beneficiaries of this scheme, particularly the students. According to De Foucauld and Roth's (2002) report, in 2,000, students represented 55% of the beneficiaries under the age of 30, for a total amount of €657 million. At the same time, it is recognised that the number of (subsidised) rooms available in student residences is not sufficient (150,000 beds compared to 450,000 students with grants).

## *3.2. Indirect Support From the State Budget*

### *3.2.1. Provision of Subsidised Services to Students*

A regional agency for student welfare, *Centre Régional des Oeuvres Universitaires et Scolaires*, operates student restaurants and dormitories in every French region. Construction and maintenance of buildings and staff salaries are paid for by the state and the students cover only part of the cost of provision of these services. It provides subsidised meals to about 20% to 25% of the students and subsidised lodging for less than 10% of them.

### *3.2.2. Student Fees Waiver or Refund*

Exemption of fees for all grant-maintained students can be seen as another type of indirect aid since universities and schools are compensated (partly from 1993 to 1997, fully since 1997) for loss of income by the Ministry of Education. It is equivalent to the payment of student fees by the state.

### *3.2.3. Medical Services to Students, Funding of Academic Sport and Student Organisations*

Grants allocated to universities or to other public offices related to the provision of free health care for students and the organisation of student sports are treated in the public accounts as a form of financial support.

Grants to student organisations are treated in a similar way since they aim at financing the provision of various non-academic services to students.

## *3.3. Other Types of State Public Support*

### *3.3.1. Income Tax Relief for Students' Families*

There are two types of tax relief for students' families. When students are considered independent from their parents for tax purposes, support paid by the

parents to their children is deductible from taxable income – within limits. When students are dependent, they attract a tax reduction (income tax being calculated by taking into account the number of dependent children).

### 3.3.2. *The Social Security System*

There is a separate social security scheme for students, created in 1948, and run by the national health insurance agency, *Caisses d'assurance maladie*. Students contribute about €180 a year, only a fraction of the benefits they receive. In particular, grant-holders do not contribute. The deficit of the scheme is made up by subsidies from other social security schemes.

### 3.3.3. *Support From Local Authorities*

Local authorities, apart from their contribution to funding construction and equipment in universities, have developed various funds and schemes in order to help students from their constituencies.

There are examples of interesting support schemes through which towns guarantee resident students a minimum income based on the cost of living (*Revenu minimum étudiant*) taking into account support already secured from the state or other sources.

Public transport subsidies, travel grants for students taking part in Erasmus international exchanges, and various types of scholarships and grants exist in many regions, districts and towns. These funds are scattered and uncoordinated and no attempt has yet been made at estimating their total amount.

### 3.3.4. *Support From Universities*

From their fees income, universities manage funds called 'student living improvement funds' the spending of which varies from one institution to the other. The total estimated amount spent by universities on improving student living was €7 million for 1996. Exemption of fees for students experiencing hardship (decided by heads of universities or schools) is another form of support from institutions.

Teaching assistantships (*monitorat d'enseignement supérieur*) are formally allocated by universities to graduate students but salaries are paid by the state. Universities employ part time a limited number of students on their own budget, especially for peer tutoring introduced in 1996 as a device for reducing student failure in the first years of college studies. Most research assistantships and scholarships (*allocations de recherche*) are funded by the state or business firms. Universities also employ research students to take part in contract research.

Part-time student jobs are not common in French universities. During the recent period of high unemployment, universities have resorted to various types of subsidised job schemes that have been created by the government thereby limiting the number of student jobs which are more costly. The actual size of such employment is difficult to evaluate since accounting practices at universities do not separate salaries paid to students from salaries paid to staff.

There has always been a very small amount of money set aside by each university as discretionary funds to be allocated by the presidents but we have no reliable data on that sort of support (contingency grants).

### 3.4. Present Debates on Student Financial Support Policies

Over the last decade, there has been a political will to increase public support for students. A 'social student plan' (*Plan social étudiant*) was implemented in 1997 to create the conditions for a better recognition of the role of students in French society and to allow for wider financial autonomy. The objective was to increase the proportion of supported students from 20% in 1997 to 30% in 2001. The level of grants has been raised and conditions for eligibility widened. Zero-rated grants were introduced. According to table 4, the official target of 30% was reached in 2003. As this table shows, grants make up 95% of direct financial support.

Table 4. Number of students financially supported by the state

	1990–91	1995–96	2000–01	2003–04
Financial support	272,088	414,105	478,600	507,563
Aided students (%)	19.7	24.1	28.6	29.9
Means-tested grants	254,809	383,866	452,616	484,545
Average grant (€)	1,910	2,283	2,320	2,407

Source: DEP 2004

As stated in a recent report (De Foucauld and Roth 2002: 22), grants seem to be effective, since they assure their beneficiaries good study and living conditions, protecting them from financial hardship and limiting the need for a salaried job, which could be prejudicial to the normal course of their studies. An increasing number of young people are suing their parents in court for maintenance payments. The question is whether it is necessary to increase the level of financial support or the number of beneficiaries or both?

De Foucauld and Roth (2002) also discuss housing benefits. Allowances are given, in some cases, to students who do not need them, as parents have sufficient financial resources for their support. The ambiguity comes from the fact that the entitlement and the size of the benefit depend on the lodging itself and not on the income of the parents.

Cieutat (1997) highlights the anti-redistributive character of the whole system of financial support for students:

Subsidies to university restaurants and to student social security as well as housing allowances benefit all students equally, whatever their family resources ... It does not make sense that the state puts so much money into a system that benefits people who do not need it.

A further criticism in De Foucauld and Roth's (2002) report is directed towards another form of financial aid to students or to their families: income tax relief.

Families may count their children who are enrolled in a higher education institution as dependent until the age of 25 (the resulting tax rebate is capped). They are also allowed to deduct from their income tax a fixed amount (set every year in the state budget) for the expenses borne for their children as students. These 'tax benefits' amount to €1.2 billion, which represents 28% of all public support.

A recent paper (Albouy, Bouton and Roth 2002) studying the redistributive effects of public support for education in France, concluded that, considered as a whole, this policy promotes income redistribution between families. Nevertheless, tax relief predominantly benefits affluent families. The tenth decile of students' families receives yearly more than €100 per consumption unit, whereas the benefit is lower than €50 up to the sixth decile. Consequently, public support for education as a share of income decreases from the second to the seventh decile before rising again.

#### 4. CURRENT ISSUES ON FUNDING OF HIGHER EDUCATION IN FRANCE

##### *4.1. Student Loans Schemes*

Student loans and other forms of delayed payments are not widely used in France and the limited schemes that exist or have been tried in the past demonstrate a strong reluctance towards them.

It could be worthwhile to reflect on the failure of the student loan scheme introduced in 1990–91 by the government. Its main features were:

- management by the banking system;
- banks were offered 'lots' on tender composed of half loans guaranteed by the government and half regulated loans without any guarantee;
- the creation of a guarantee fund with a major role for the state, but with a moderator role for the banks and an additional guarantee by universities;
- conditional eligibility: A ceiling on the income of the family (less than 3.5 times the minimum wage) in order to exclude students from affluent families;
- first-year students were eligible (when they were usually excluded or took out private bank loans);
- combination with a grant was allowed; and
- a maximum level of €2,000 per year, over three years, with a grace period for repayment.

The scheme was a complete failure (80 applications in 1991 for 30,000 loans on offer). This can be explained by several reasons linked to the lack of enthusiasm from the banks that subscribed a small share of the loans on tender. Their view was that the guarantee from the state was insufficient, as they were not allowed to demand the parents' backing. The loans were not attractive to students as the interest

rates were too high and there was too short a period for repayment, because of the conditions imposed by the state. In brief, the costs appeared too high for students. As Jean-Claude Eicher (1997) stated:

The lack of an integrated conception of a grant and loan system and the multiplication of constraints with multiple purposes produced a disaster that delayed for years the implementation of a public loan programme for students in France.

Banks offer commercial loans either secured by parents or unsecured but on conditions linked to the type of study. They tend to favour students close to graduation and enrolled in fields like engineering and medicine that potentially result in good earnings.

Another example illustrates to what extent the question of a loan system for higher education is not at stake in France. In 2000 a member of parliament put forward a bill providing for the deductibility from taxable income of repayments on loans contracted by students. This proposal was never discussed by the National Assembly.

More recently, a report from the CERC (2003) highlighted the lack in France of a loan system for financing higher education, whereas such systems can be found in many developed countries. Though very cautious in considering that such a solution cannot be a miracle cure, this body recommended a reflection on the opportunity of its introduction in France. But, to date, the issue has not re-surfaced.

## 4.2. Tuition Fee Policy

The preamble of the 1946 Constitution states that “the organisation of secular, free and public education at all levels is a duty of the State”. Student fees are opposed by many on the grounds of this principle of free provision of education by the state.

### 4.2.1. Legal Grounds for Tuition Fees in France

The legal basis for tuition fees in France is found in the 1951 budget (*Loi de Finances*), with an article which stipulates that “the levels and modalities of perception of tuition fees for public institutions will be fixed by a joint order of the concerned minister and of the budget minister”.

In the Higher Education Framework Act of 1968 (*Loi Edgar Faure*), institutions are allowed to raise resources from donations, foundations and sale of services. This point has been used by universities as the basis for charging fees for specific services beyond basic teaching services (such as mimeos, computer rooms, etc.) in addition to the official amount. A ministerial order was therefore issued in 1971 stating that an institution cannot compel a student to pay an additional fee to the one fixed by ministerial order.

In 1991 two innovations were introduced: a special fee for funding a ‘student life fund’ (*Fonds d’aide à la vie étudiante*) (€6 per year out of a total fee of €91 at the time); and a differentiation in the fees according to the type of study programme (fees were increased for professional programmes which are usually more costly to operate).

In 2004, the Ministry, seeing ‘an absurdity’ in the fact that fees were higher for vocational studies, made a new move to adapt the structure of the fees to the new bachelor/master/doctoral programme structure. Consequently, fees are now set for each level: €150 for undergraduate programmes, €190 for master programmes and €290 for doctoral studies.

In the past, attempts were made to substantially increase fees. The ‘Devaquet Plan’ (from the name of the then minister in charge of higher education) intended to give more autonomy to universities to allow them to establish their fees in a range of one to three times the level of the fees nationally fixed. However, in 1986, the government had to retreat because of substantial student protests. The principle of equal fees all around the national territory was upheld and the issue has remained taboo ever since.

In 1995, a report prepared for the Minister of Higher Education Fillon (the ‘Laurent Report’) proposed to substantially increase fees (which could range between €300 and €600 according to the level of studies, when the national fees were around €110). The report also proposed to continue exemption of fees for poorer students and to introduce a loan system for master programmes. Once again, huge protests led to a withdrawal of the proposals of this report.

The Conference of University Presidents frequently publishes statements in favour of a fee increase provided that the state does not take advantage of it to diminish its funding.

#### *4.2.2. Who is Responsible for Setting the Level of Tuition Fees in a Public Higher Education System?*

Tuition fees are fixed by ministerial order (*arrêté*) signed by the ministry in charge of higher education and the ministry in charge of the budget. Public higher education institutions can charge extra fees directly related to a specific and optional service, but not on a compulsory basis; the level of these fees has to be decided by the university council. A letter from the Ministry of Education in July 2004 reminded institutions that extra fees collected for *frais de dossiers* have consistently been ruled out by administrative courts.

Universities are free to set the level of their fees for programmes not recognised by the Ministry of Education for which they do not receive any funding from the Ministry. Private institutions are free to determine the level of their fees.

#### *4.2.3. The Variation of Fees Among Institutions and/or Programmes*

As already stated, tuition fees vary among programmes offered by public universities, ‘licence’ (three years of study), masters (two years after the ‘licence’), doctorate, engineering schools, medical studies (see table 5). Public engineering schools are slightly more expensive than other fields (€450), and a €380 fee has to be paid for most medical degrees. A psychometrician degree is more expensive at €960. The fees for teacher training institutions (IUFM) are €190 for 2004–05. Students with public grants (*bourses*) are exempt from paying fees.

It should be noted that special preparatory programmes (*classes préparatoires*) located in the secondary schools, which prepare students for the competitive exams

of the most prestigious schools, do not charge fees. The same is true for the short vocational programmes located in the same schools (*sections de techniciens supérieurs*).

Table 5. Tuition fees for a selection of institutions (2003–04)

Type of institution	Status	Fees €	Enrolments
<i>Universities</i>			
Aix-Marseille I	Public	138–265	11,711
<i>Special status institutions</i>			
Intitut d'Etudes Politiques Paris	Public	1,050	817
<i>Engineering schools</i>			
Ecole Centrale de Paris	Public	398	701
ESIEE	Private	3110–4100	650
<i>Business schools recruiting from CPGE</i>			
Hautes Etudes Commerciales (HEC)	Private	7,200	1,768
INSEAD (MBA)	Private	43,500	828
<i>Business schools in universities</i>			
IAE de Paris (Université Paris I)	Public	270	
<i>Business schools recruiting after baccalauréat</i>			
ESG	Private	5,278	432
<i>Schools of journalism</i>			
CFJ	Private	750–3000	94
CUEJ	Public	280	
<i>Private institutions in social sciences</i>			
Catholic University of Paris ICP	Private	1,230	
Léonard de Vinci University	Private	4800–5850	

A share of the fees is earmarked for libraries and student social funds (*Fonds de solidarité et de la vie étudiante*) at levels set by university boards (not less than €24 for the libraries and €9 for student activities). They are included in the amount of fees set by the Ministry. A €177 contribution has to be paid for social security (compulsory from the age of 20, when students cease to be considered dependent).

Engineering schools independent from the Ministry of Education (either linked to local chambers of commerce or totally private) charge fees ranging from €1,500 to €6,000, according to the school. For business schools, the fees vary between €5,500 and €7,000.

Recently, the prestigious *Institut d'études politiques* (known as 'Sciences Po') in Paris made headlines for being the first higher education institution to introduce substantial student fees in the French public sector. The governing board of the institute decided in November 2003 to charge students up to €4,000 for tuition from September 2004. Such a jump in the level of fees (hitherto similar to those of

universities at about €140) will have an effect on a limited number of students: dependent students from the European Union will be charged a fee ranging from nil to €4,000 according to their family income. Non-European students will pay the full fee but will be able to benefit from a specific financial assistance scheme. A student union challenged the decision on various grounds in the administrative court and lost its case.

This does not mean that the way is now open for an increase in fees advocated for years by the Conference of University Presidents. However, the court ruling is not likely to create a precedent for universities because of the original position of 'Sciences Po' among higher education institutions: the increased fee applies to students seeking the institute's own diploma and is not required from students enrolled in programmes leading only to a 'national degree' for which the 'regular university fee' will be charged. Since 1945, the institute, although publicly funded, is controlled by a foundation, *Fondation Nationale des Sciences Politiques*, which is entitled to set the level of financial contributions from students.

Universities, in fact, enjoy the same freedom to set fees for courses leading to their own diplomas; the legal constraint applies only to 'national degree programmes' for which the Education Minister sets the level of fees yearly.

#### *4.3. The Impact of Financial Assistance on Equity and Accessibility*

When trying to assess the impact of public financial support for students on equity and accessibility, we should consider the alternative sources of funding, namely borrowing and student work.

A recently updated study on student hardship (Grignon 2003) concludes that 'poor students' are a very small part of the whole student population, partly because of the public scheme for financial assistance but also partly because young people from very poor families are much less likely to become students. On average, only 12% of children of very low income parents (less than €750 per month) are enrolled in higher education with large discrepancies between fields of study and types of institutions.

Despite egalitarian statements, French higher education remains socially selective. Access to the most prestigious tracks, such as medicine or preparatory programmes, is much more frequent for students from high socio-economic status families. In preparatory programmes (CPGE), they represent 52% of the enrolments and 44% in medicine, whereas their share is only 30% for universities as a whole or even 14% for the short higher vocational programmes located in secondary schools (STS). Students from low socio-economic status families represent 41% of enrolments in vocational programmes but only 14% in preparatory programmes (see table 6).

This situation commenced very early in the educational system and is not related to financial issues. A crucial stage is the end of lower secondary education when students have to decide between vocational and academic tracks which lead to higher education. Parents from higher socio-economic backgrounds are more ambitious for their children, whatever their academic achievement. For similar

average grades, 94% of them opt for academic tracks compared to 65% for parents from lower socio-economic backgrounds.

Table 6. Distribution of enrolments according to economic background (2003)

Socio-economic status	University %	Medicine %	Preparatory higher education programmes in secondary schools (CPGE) %	Vocational higher education programmes in secondary schools (STS) %
High	30	44	52	14
Low	30	22	14	41

Source: DEP 2004

The fact that hardship is rare among students and a majority of students find their financial situation satisfactory is also largely due to the high proportion of students who work part time, and sometimes full time, during their studies. Not taking into account summer jobs, almost half the students report having been in paid employment during the academic year. A third of them work more than half time and 15% full time. Only a fraction of student work is directly related to their studies (such as placements or internships or supply teaching). It has been established that when students are in paid jobs that bear no relation whatsoever to their course of study, they are less likely to achieve graduation and take more time to graduate. One of the reasons why students had to work during their studies was the time limit set to the grant entitlement. Students could only repeat one year at undergraduate level before losing their grant. From 2004–05, students will be eligible for grants for up to seven years towards a masters degree, which might reduce the financial pressure and the necessity to work.

Duru-Bellat and Mingat (1979) have shown that *baccalauréat* holders with the same grade do not choose the same track at university, rather they choose according to their social origin. The best students will more frequently choose medical studies when they come from a high social status background, whereas they will choose short technical studies when they come from a low social status background. Medical studies are more profitable, but the risk of failure at the end of the first year is high. Short technical studies are less profitable, but the probability of graduating is high, once the student has been admitted to that track. In fact, low social status students are reluctant to take risks, even when the rate of return is high.

This behaviour can lead us to assume that a loan system would have a different impact of demand for higher education according to the social origin of students (or rather according to the wealth of their parents), unless the amount to be repaid is linked to the future income after graduation. In such a case, the risk is taken over by society, and therefore is less likely to prevent poor students from borrowing.

Some recent estimates<sup>2</sup> computed by the authors show that the impact on the rates of return of the introduction of higher fees in France would be rather limited. The simulation considers three different cases: the fees at their present level; fees corresponding to 20% of the cost of studies; and fees corresponding to the full cost

(see table 7). Except for engineering studies, which correspond to the highest cost and the lowest fees in the first two years of studies (preparatory classes are usually free of fees), the impact of increased fees would be very low. The explanation relies on the fact that the largest share of the cost is foregone earnings.

*Table 7. Rates of return on degrees according to the level of fees  
(maîtrise degree – 4 year programme)*

	<i>Present fees %</i>	<i>20% of the cost of fees %</i>	<i>Full cost fees %</i>
Natural sciences	8.62	8.17	6.51
Law & economics	4.93	4.86	4.33
Art & humanities*	7.14	7.04	6.36
Engineering	16.89	14.88	9.83

\*For a teaching career; the figures are negative for other careers

According to Giret, Moullet and Thomas (2003), different patterns can be seen in the quality of the transition to the labour market, when the social origin of the students is considered. The main difference is the proportion of graduates in executive positions. For instance, for short higher vocational degrees, the proportion of such highly qualified workers is 12% higher when graduates come from a high social status background. This difference seems to vanish for the most prestigious degrees.

#### *4.4. Cost-sharing in French Higher Education*

Three approaches can be used to measure the extent to which cost-sharing takes place in the current system of higher education and the prospects for its extension: the distribution of funding by origin of funds at the system level; the analysis of student budgets; and the share of private providers.

##### *4.4.1. Sources of Funding of Higher Education*

According to the national accounts for higher education, it is obvious that higher education is mainly publicly funded and that the contribution of users remains very low. The share of public funding is around 82% (excluding fiscal exemptions and housing benefits). Students and their families contribute about 12% (see table 8).

*Table 8. Funding of higher education (2003)*

	<i>Share %</i>
Public sector	82.4
Firms	6.1
Households	11.5
Total	100

Source: DEP 2004

The pattern is slightly different when the type of institution is taken into account. In private institutions, which represent 9.4% of the enrolment and 8.1% of the total expenses for higher education (estimates computed from the national accounts), households contribute 37% and the state 39%. In public institutions, the share of the state contribution is overwhelming (91% of funding), whereas the contribution of the households represents only 6% of funding (see table 9).

*Table 9. Share of the different contributors according to the type of higher education institution*

	<i>Public institutions</i> %	<i>Private institutions</i> %
State	90.6	38.9
Companies	3.1	23.9
Households	6.3	37.2
Total	100	100

Source: National Accounts for Higher Education 2001

#### *4.4.2. Student Budgets*

The households' contribution can be analysed through the structure of the average student budget as estimated in 1996 by Eicher and Gruel (see table 10). If public financial support is not taken into account, the student budget is composed of parents' contributions of 59% and earnings from student jobs of 41%.

The legal basis of the family contribution toward the costs of their children's education is found in Article 203 of the Civil Code (promulgated on 17 March 1803): "the married couple acquire together, by the mere effect of marriage, the obligation to feed, to support and to educate their children". This rule is not limited to minor children. The High Court (*Cour de Cassation*) has regularly reiterated this principle. Nevertheless, a student does not have an absolute right to such maintenance payment once the age of majority has been reached. Students have to study seriously and constantly. Failing several times, missing lectures, being late with work, and so on are grounds for cancelling the obligation of support by parents.

*Table 10. Average student budget (1996)*

	<i>Amount</i> <i>(FF per month)</i>	<i>Share</i> %
Income from work	1,798	29.6
Parents' contributions	2,610	43.0
Public financial support	1,666	27.4
Total	6,074	100

Source: Eicher and Gruel 1996

An important issue, where cost-sharing is concerned, is the anti-redistributive role of tax exemptions, which above all are beneficial to affluent families. Eicher and Gruel (1996) computed the share of tax exemption in an 'extended' student budget (see table 11).

Table 11. Share of fiscal exemption in the student budget by socio-economic status

<i>Socio-economic status</i>	<i>Resources from work, parents and state (FF)</i>	<i>Fiscal exemption (FF)</i>	<i>Total resources (FF)</i>	<i>Share of fiscal exemption (%)</i>
Low	4,175	160	4,335	3.7
Average	4,374	323	4,697	6.9
High	4,661	625	5,286	11.8

Source: Eicher and Gruel 1996

Whereas fiscal exemptions represent 3.7% of the budget of low socio-economic status students, they represent 6.9% of average socio-economic status students and even 11.8% for high socio-economic status students. A high socio-economic status student benefits on average from a fiscal exemption four times higher than the one received by a low socio-economic status student.

#### 4.4.3. The Prospects of the Private Sector in Higher Education

Contrary to a common perception (due to the right given by the *Baccalauréat* to free access to university), enrolments in the open part of the public sector of higher education represent only a half of the total enrolments (52%). The private sector (entirely selective) represents 9.3% of the enrolments (against about 10% in 1990) and the selective part of the public sector (mainly vocational short higher education programmes, engineering schools, preparatory programmes) 38.7% (see table 12).

Table 12. Enrolments according to type of access (2003–04)

<i>Sector</i>	<i>Type</i>	<i>%</i>
Public	Open	52
	Selective	39
Private	Selective	9

It is important to note that there is no link between selectivity in access to public sector programmes (generally linked to prestige) and the level of fees. In the preparatory programmes, where half of the students come from high socio-economic status families, no fees are charged. In universities, the fees range from €140 to €400. In some prestigious selective institutions such as *Ecoles normales supérieures* or *Ecole polytechnique*, instead of paying fees, students are paid, as they are considered to be civil servants in training.

## 5. CONCLUSION

From a broader perspective, the evolution of student support is somewhat inconsistent. When grants are means tested in order to promote access, indirect support and housing benefits are distributed to all students, without any reference to their family situation. In a way, tax deductions enjoyed by students' families, although capped, redistribute income from families in the medium income groups to those in the upper income groups.

As new schemes have been introduced year after year without removing any of the existing ones, the system has become very complicated. The authorities are conscious of the need to completely redesign public student support. The introduction of loans was attempted in the early 1990s and failed. Student unions have long demanded a student 'social status', meaning in particular financial autonomy, that is a student 'salary' without any reference to the situation of students' families. Their views are comforted by the fact that students have already gained some financial autonomy by becoming eligible for housing benefits and also, as recent studies have shown, by holding more and more part-time jobs. The whole issue of the status of students has been prominent for a number of years. In 1995, during the national forum on higher education (*états généraux de l'université*), it was proposed to replace all existing benefits and grants (including tax allowances) by one single means-tested student grant. The government has since produced two 'student social plans' which amounted mainly to doing more of the same and postponing real reform.

There are serious obstacles for such a reform. First, the cost. Even if all present benefits were merged into a single scheme, the extra cost to public financial resources would be huge. Second, since student aid is presently scattered in many different sections of the state budget, bringing it all into the education budget would alter the existing balance between various departments of the state administration. A recent change (*Loi Organique sur les lois de finance*, the State Budget Act of August 2001) in the budgetary regulations might force the latter. A recent debate in the French press on the inadequacy of higher education funding in France, triggered by the publication of OECD data and a report of the National Council of Economic Analysis (Aghion and Cohen 2004), might help open the debate on the former.

## NOTES

- 1 Average expenditure per higher education student including expenditure on research: France (€7,676), USA (€18,033), Canada (€11,430), Germany (€10,151), United Kingdom (€9,428), Australia (€9,224); average expenditure per higher education student net of research expenditure: France (€6,476), USA (€16,058), Canada (€9,460), Germany (€6,288), United Kingdom (€6,039), Australia (€6,599).
- 2 Estimates with a simplified model in which costs include foregone earnings and fees, and benefits are the difference (over the working life) between the incomes of higher education graduates (*maîtrise*) and secondary education graduates (*baccalauréat*).

## REFERENCES

- Aghion, P. and E. Cohen. *Education et croissance*. Rapport du Conseil d'Analyse Economique. Paris: La Documentation Française, 2004, <http://lesrapports.ladocumentationfrancaise.fr/BRP/044000017/0000.pdf>.
- Albouy, V., F. Bouton and N. Roth. *Les transferts en faveur des familles: Bilan statistique des transferts liés à l'éducation*. Communication, Séminaire CERC-INSEE, November, 2002.
- CERC. *Education et redistribution*. 3<sup>ème</sup> rapport du Conseil de l'emploi, des revenus et de la cohésion sociale (CERC). Paris: La Documentation Française, 2003, <http://www.cerc.gouv.fr/rapports/rapport3cerc.pdf>.
- Cieutat, B. *L'état des aides aux étudiants*. Rapport rendu au Ministre de l'Education Nationale. January, 1997.
- De Foucauld, J.B. and N. Roth. *Pour une autonomie responsable et solidaire: rapport au Premier ministre*. Commission nationale pour l'autonomie des jeunes. Paris: La Documentation Française, 2002.
- DEP. *L'état de l'école*. No. 14. Paris: Ministère de l'Education Nationale, 2004, <http://www.education.gouv.fr/stateval/etat/etat.htm>.
- Duru-Bellat, M. and A. Mingat. "Comportement des bacheliers et modèle de choix de disciplines." *Consommation* 3/4 (1979): 245–262.
- Eicher, J.-C. "Le système d'aide aux étudiants en France: Analyse des déterminants." Rapport à Eurydice, Commission Européenne, unpublished, Paris, 1997.
- Eicher J.-C. and L. Gruel. *Le financement de la vie étudiante*. Paris: La Documentation Française, Cahier de l'OVE, 1996.
- Giret, J.-F., S. Moullet and G. Thomas. *De l'enseignement supérieur à l'emploi: les trois premières années de la vie active de la 'Génération 98'*. Notes Emploi-Formation. Paris: CEREQ, 2003.
- Grignon, C. *Les étudiants en difficulté – pauvreté et précarité*. Rapport au ministre de la Jeunesse, de l'Education Nationale et de la Recherche. Paris: l'OVE, 2003.
- National Accounts for Higher Education. *Le compte de l'éducation et le compte de l'éducation supérieure – Années 1997 à 2000*. The Dossiers, No. 125. Paris: DEP, 2001.

PER OLAF AAMODT

## ACCESS TO HIGHER EDUCATION WITHIN A WELFARE STATE SYSTEM: DEVELOPMENTS AND DILEMMAS

### 1. INTRODUCTION

Developments in higher education in most countries over the last decades have moved towards a stronger market orientation. This is also the case in the Nordic countries but at the same time these countries seem to differ from most other countries in the sense that higher education is still connected to welfare state policies. This chapter focuses on the case of Norway. Norwegian higher education is in a state of rapid and thorough transition, which forms a useful ‘laboratory’ for research, but at the same time makes it difficult to distinguish between long-term trends and ‘noise’ created at the time of implementation. Our focus is on the relationship between the funding of higher education, especially the student support system, and access to higher education, both in terms of total enrolment trends and equity.

This chapter first discusses why access to higher education is expanding, and also the factors leading to inequitable enrolment. Second, it presents a brief description of the Norwegian context, including the higher education system. Then, after discussing general models for funding of higher education as well as for financial support of students, the chapter presents some information on how Norwegian higher education is funded, including the system for student support. The next section presents some key figures on higher education enrolments, including some indicators on equity, and attempts to relate these developments to funding. Higher education in Norway is at the moment in transition, and the conclusion examines the key elements in the ongoing reform process which may affect access.

### 2. ACCESS AND EXPANSION: A MODEL

The main topics in this chapter are the expansion in higher education enrolments and inequalities in enrolment according to gender, family background, etc., and how these developments may be related to higher education funding. Before presenting the Norwegian context and funding system we will explore the question of why enrolment in higher education is increasing, and why some groups have a higher probability of attending higher education than others.

Expansion in higher education is most often related to human capital theory. This theory (Becker 1964) adopts an investment perspective on education, both by

society and individuals, and gives valid explanations on expansion in total enrolment, at least the long-term trends. The theory is perhaps less suited to explain short-term fluctuations.

A simple assumption about educational expansion is that it cannot happen without the political will to fund the increasing number of study places (if we assume that the state is the major source of funding), and that there are enough people willing to fill the places. There must be an individual demand as well as the political will to allocate money. Both are related to the assumptions of high labour market demand and that education is important for economic and social development.

Individual demand is easy to understand at least as long as private economic return from higher education is high, or at least positive. This is the case in most countries, and is less negatively affected by the strong expansion in higher education than could have been expected. The risk of unemployment is also considerably lower among graduates than those who have lower levels of education.

The political willingness to invest in education is based on the assumption that it is also fruitful for society. Direct links between educational and economic development are, however, hard to show empirically. Meyer et al. (1977) conclude that cross-national levels of economic, political and social development do not adequately explain the massive post-war expansion of national educational systems. Meyer, Ramirez and Soysal (1992) observe that indications of national modernisation or of structural location in the world society have only modest effects. Since educational expansion took place more or less simultaneously in different countries with different political climates (Benn and Fieldhouse 1993) it can be assumed that educational expansion is independent of political differences.

Aamodt (1995), in an analysis of the strong growth in the student population between 1987 and 1994 in Norway, argues for a demographic model to understand the complexity of expansion in higher education. He distinguishes between the long-term trends and short-term fluctuation in total enrolment. The long-term trends are caused by changes in the age group, upper secondary school leavers, and the proportion of these actually applying for higher education. The short-term fluctuation in total enrolment in Norway is due to changes in the tendency to postpone entry to higher education, which is affected by changes in the unemployment pattern. Increasing unemployment rates, especially in the younger generation, around 1990 was a catalyst for the strong increase in the number of new students.

In a study of access to higher education in the Nordic countries, Aamodt and Kyvik (2005) present a model of the interplay among the three important variables which have traditionally been applied in the analysis of the move towards mass higher education: *labour market needs*, *individual demands* and *access policy*.

The relations among these three variables are shown by the direction of effects indicated in figure 1. This is a simplified version of the one presented in Aamodt and Kyvik (2005). The unbroken lines show the major direction of effects, while the dotted lines indicate that the relations may also work in the opposite direction. The access policies in the various countries can be seen as the consequence of the interaction of the demands of young people for higher education and the needs of

the labour market for highly skilled manpower. However, governments also impact upon access policy by intervening to enhance equality of educational opportunity by gender, social class and place of residence. In addition, the government may regard investment in higher education as a tool for economic, social and cultural development. Political decisions thus may lead to expansion in the number of available study places irrespective of the needs of the labour market and the current aspirations of young people. Expansion in the number of available study places at the same time acts as a signal to potential applicants: individual demand is to a certain degree supply driven. Also the supply of graduates to the labour market has an independent effect on demand: undersupply leads to the hiring of under-qualified manpower, while oversupply may lead to the opposite. Increasing the educational level in the workforce is not only a reflex of technological change; we would claim that increasing supply has had an independent effect.

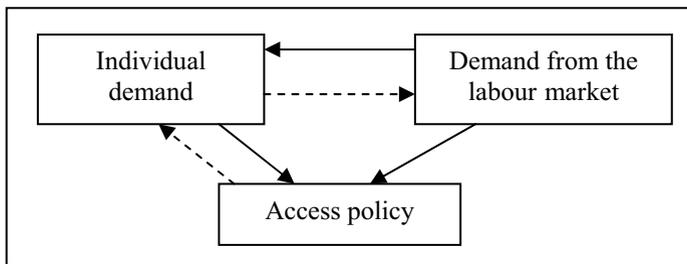


Figure 1. The interplay among factors causing expansion in higher education

In addition, a number of important contextual factors affect each of the three boxes of the model. *Labour market needs* for highly trained manpower not only develop in line with the introduction of new technology, but are also affected by fluctuations in the economy. Furthermore, the attractiveness of highly educated manpower is affected by the rate of return, that is, the expected wage differences between university and college graduates and less trained job seekers. If there is a surplus of graduates compared to the demand from the labour market, the rate of return will tend to be reduced and vice versa.

*Individual demands* are not only affected by the demands of the labour market and the number of available study places, but are also heavily affected by contextual factors like the expansion of upper secondary education, the educational level of the parental generation, social aspirations in the community, family financial circumstances and proximity to higher education institutions. The student support system also has an impact on the decision to enter higher education.

*Access policy* is not only affected by labour market needs, individual demands, equity policy and socio-economic political concerns, but also by contextual factors such as general public policy in fields like labour market policy and regional policy. Access policy regulates the number of available study places as well as the admission regulations. Furthermore, the student financial support system is part of

the access policy, and stimulates the demand for higher education in general and from under-represented groups in particular.

Aamodt and Kyvik (2005) conclude that the long-term trends of expansion since the late 1950s are strongly policy driven, and have to be understood as the results of the interplay between political initiatives and reforms on the one hand, and individual demand on the other. Policy initiatives and reforms include changes and expansion in both upper secondary and higher education itself, as well as access regulations, financial support to students, etc. In Norway, the establishment of higher education institutions in most parts of the country is an example of a policy having important effects on enrolment.

To understand why there are differences in enrolment in higher education by gender, geographical and social origin, etc., there is a broad range of relevant theories. Enrolment in higher education is not only a result of one single act in the actual transition, but also the result of a series of decisions as well as competition for entry into lower levels of schooling. The economy in general plays an important role in these transitional processes as well as eventual direct costs like school fees. Other factors include the costs to families for the support of their children through free accommodation and meals, and the loss of potential income from their children's employment.

In Norway and other countries where education is free and generous support systems exist, the economic barriers to participation in education at different levels are relatively insignificant. Also since the relationship between investment and gains in principle is unaffected by the social origin of the individuals, human capital theory is less useful for understanding the differences in enrolment from different social groups or by gender. When inequalities in enrolment by the socio-economic position of the family still exist in spite of this, these differences can only be explained to a limited degree by economic factors.

How to explain social inequalities in educational attainment has been a major topic for the sociology of education for decades. Hansen (1986) classifies the sociological explanations into three main categories: value theories, cultural theories and social position theories. Well-known examples of cultural theories are represented by Bourdieu and Passeron (1977), while Boudon 1974 represents the social position theory. These theories will not be elaborated upon further.

### 3. THE NORWEGIAN CONTEXT

Norway is a small country with a population of little more than 4.5 million people. Population density is low, but more than one fourth of the population lives in or close to Oslo. During the 20<sup>th</sup> century, Norway developed from a relatively poor agrarian society to a modern industrialised one, utilising its natural resources from mining, forestry, electricity, fisheries, and later oil. Income from oil resources has made Norway one of the wealthiest countries in the world, with a GDP per capita in 2002 of US\$42,000 compared to US\$23,100 for the whole OECD (OECD 2004). The Norwegian state controls a considerable part of the surplus from the oil industry and has built up large reserves. The unemployment rate has changed over the years,

but is among the lowest of the OECD countries: 4.3 per cent in the first quarter of 2004 compared to an OECD average of 7 per cent.

Norway's political and economic system is typical of the Nordic welfare state model, with a relatively strong role for the state. This is true, even though the system has undergone important changes over the last decades, for example, the introduction of new public management, attempts to cut public expenditure and the introduction of market mechanisms in new fields of the public sector.

Educational attainment in Norway is among the highest in the OECD. More than 90 per cent of the age group start studying in upper secondary education, and approximately 60 per cent enrol in higher education. All youth have a legal right to attend a full length course in upper secondary education, which is three years, alternatively four, in most vocational fields. The reform that occurred in 1994 in upper secondary education has also increased the proportion that finishes upper secondary education. More than half of the new entrants in upper secondary education attend vocational streams, but there are transfer options to general programmes, and, in addition, vocational programmes may also lead to access to higher education. Hence, development over the last 10 years has increased the potential number of entrants to higher education.

Norwegian higher education has undergone continuous transformation as well as strong expansion over the last four decades, similar to most other Western countries. Compared to most other European countries, the history of higher education in Norway is short; the first university, the University of Oslo, was founded in 1813. Before that, most Norwegians went to Copenhagen to obtain a university degree. Until 1814 Norway was a part of Denmark. The next university was founded in Bergen almost 150 years later, and the last ones were established in 1968 and 1972. As well, a number of specialised institutions at university level in the fields of agriculture, technology and business administration have been established.

After 1970 a new sector of higher education, alternative to the universities, was established based on new institutions as well as on the upgrading of former vocational institutions, such as teacher training, engineering and health education institutions. In the 1994 reform all previous 98 institutions were merged into the present 26 state university colleges. The state college sector has absorbed a considerable part of the expansion in higher education. Today, Norway has four universities, six specialised institutions at university level, 26 state university colleges and a number of private institutions, most of them small, but including also one large private business administration institution.

A new far-reaching reform on higher education, 'Quality Reform for Higher Education', was passed in Parliament in 2001 and implemented from 2003. The reform affects governance, funding, steering and internationalisation, but perhaps most important is the implementation of a 3+2 year degree system based on the Bologna declaration. Also strengthening teaching quality and supervision of students as well as introducing a new examination system are important measures to enhance quality and efficiency in higher education. The reform is presently in the implementation phase with institutions having considerable freedom in how to implement the different aspects of the reform, so it is too early to judge the consequences. The Norwegian system is therefore complicated at the moment.

In Norway, public institutions of higher education are state institutions, and the coordinating role of the state has traditionally been strong. Until recently the institutions had only limited autonomy in economic transactions and in personnel policy. Professors used to be appointed by the government, and all new degree programmes had to be approved by the government. At the same time academic freedom of the universities was strong, the government did not intervene in research or most other academic affairs. In all Nordic countries, the state has been regarded, and is still regarded, as a protector rather than a threat to academic freedom. In the state university college sector, traditions were different. These institutions had little or no research activities, and the predominantly professional study programmes have always been supervised quite strongly by the government or governmental bodies. The quality reform increases the independence of these institutions. A recent commission report went even further and proposed to establish higher education institutions as independent, but still state-owned, legal entities. This proposal was opposed by most institutions, and was not included in a new law proposal by the government. Institutions will continue as state institutions, but with increasing autonomy. This shows that Norwegian universities and colleges are satisfied with the degree of autonomy they can have as state institutions, and do not want to entirely cut their links with the state.

The transition from higher education to work has generally been quite unproblematic in Norway. Six months after graduation, only 11 per cent of university graduates have not found a relevant job. These figures have naturally fluctuated according to the general unemployment pattern, but in recent years there are signs that the strong expansion in the number of graduates has led to increasing employment problems among most groups of graduates.

Traditionally, the income distribution in Norway is characterised by relatively small income differences. While most other countries have experienced increasing wage differences during the last decades, this has not been the case in Norway (Aaberge et al. 2000; OECD 1997). This is also true for wage differences by level of education, which means that the rate of return of higher education is less than in most other countries. Wage differences by education were reduced during the 1970s and early 1980s, but after that it has been rather stable. It has been estimated that the income increase related to one extra year of education in Norway is five per cent. This is comparable to Sweden and Denmark, but lower than the typical level in Europe, and considerably lower than in the US (Hægland 2003).

The low rate of return of higher education may be one of the explanations for the smooth transition from education to work. Hiring graduates is relatively cheap. In our context, it is especially relevant as a background for the discussion of funding mechanisms and student support.

#### 4. FUNDING MODELS

Before presenting any facts about the funding of higher education in Norway, it is necessary to look at the Norwegian system of funding and student support in a

broader perspective. Johnstone (1989) identifies four main sources for the funding of higher education:

- *Parents* in most countries are expected to contribute to cover at least the cost of living for students; in the US, parents are also expected to cover tuition.
- *Students* cover part of the cost of living, and on some occasions also part of tuition. The student contribution may originate from savings, paid work during studies or from loans.
- *Taxpayers* through public allocations in European countries cover all or most of the cost of tuition and this is also the case to a considerable degree in public institutions in the US. Cost of living is subsidised by public funds through grants and subsidised loans, or as indirect support for accommodation and meals and student welfare, or as tax reductions to the parents.
- *Donations to institutions* are particularly important to private universities in the US, but are not common in Europe.

Figure 2 illustrates the funding streams in higher education. The dotted arrows represent streams that are not used in Norwegian funding at present. The main investments for individuals are with respect to foregone earnings and the cost of loans. The state subsidises individual students through grants and subsidised loans. Students may on an individual basis take out loans from private banks to cover costs during their studies, but this is not part of the formal system in Norway.

The arrows in the figure have different meanings with respect to different funding streams. Loans, whether provided by public agencies or private banks, are not subsidies since the loans are going to be paid back. In these cases, the relationship between the student and the lender changes over time, as indicated by the direction of the arrows: students get support while studying, but have to repay after graduation.

More details about the funding of higher education, including financial aid to students, will be presented later.

Most, if not all, higher education systems provide some kind of financial support to students. Woodhall (1992) identifies at least ten different models for financial aid to students, regardless of public or private sources:

1. unconditional support by grants to cover tuition or living costs;
2. grants to selected students based on merit;
3. means-tested grants to students with specific needs;
4. special grants to students in some professional studies on the condition that the student works for the organisation that has awarded the grant;
5. support from companies without any specific bindings;
6. loans from public source with low or no interest;
7. public guarantee for private loans, normally at interest below the market level;

8. paid part-time work for students, generally at their own institution;
9. subsidised accommodation, meals or travel;
10. tax reductions to parents or students.

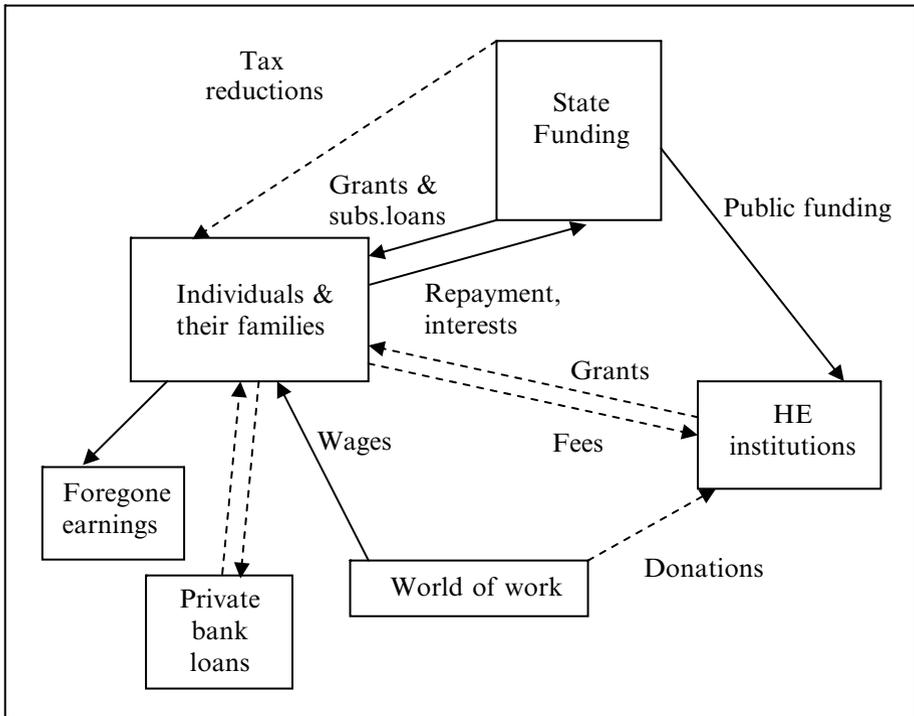


Figure 2. Funding streams in higher education

The international trend in the funding of higher education is towards a higher contribution from students and parents. In the US fees have been increasing, and tuition has also been introduced in a number of European countries. There is also a general trend, as in the UK, to loans replacing grants in the support of students. An interesting distinction regarding private contribution to higher education can be drawn between up-front payment and loans. The Australian HECS (Higher Education Contribution Scheme) system is an example of private contribution without the necessity of up-front payment, relating the contribution to a combination of the costs of study and the earnings of graduates.

## 5. FUNDING OF HIGHER EDUCATION IN NORWAY

The main source of funding of higher education is the state, even though external funding has gradually become more important during the last decade, mainly as contract research funding.

Educational expenses represent a considerable proportion of public budgets. Table 1 shows that the share of higher education expenditure is a little higher than that of upper secondary education, but lower than primary and lower secondary education. The share has been fairly stable over time in spite of increased enrolment.

*Table 1. Educational expenditure by level of education as percentage of total governmental expenditure, 1993–2003*

	1993	1995	2000	2003*
Primary and lower secondary	4.3	4.6	5.5	6.0
Upper secondary	3.0	3.6	3.0	3.2
Higher education	3.4	3.4	3.4	3.5
Other educational expenses	1.3	1.5	1.4	1.0

\*Preliminary figures

About 80 per cent of the funding of universities is basic funds from the state, while 20 per cent may be defined as external funding in the sense that this is money which the institutions have to compete for. However, the main proportion of these funds comes from the Norwegian Research Council or other public sources. Funding from private institutions or organisations represents less than four per cent (see table 2).

*Table 2. Universities: Total funding and percentage of external funding, 2003*

Total funding (€ million)	1.428
External funding:	%
Norwegian Research Council	10.2
Other public	4.7
Private/organisation	3.7
EU and other international	1.5
Other	0.3
Total external funding (%)	20.4

Table 3 shows that funding of higher education per student is highest in the specialised university institutions. These institutions are research intensive and have strongly controlled access. Comparing the two largest categories of institutions, the universities spend about twice as much per student as the university colleges. This is mainly due to differences in research expenditures.

The funding system has gradually changed towards less detailed budgeting, net budgeting, and the introduction of incentive-based funding. These aspects, and especially incentive-based funding, were strengthened following the quality reform. But the reform has not so far reduced the state's share of total funding. The institutions are at the moment meeting the challenge of implementing internal incentive systems. The incentives are based on a combination of educational output,

credits and graduates. Research production, mainly based on publications, will also be included as funding criteria.

*Table 3. Total expenditure for public universities and colleges per student, 2001–03 (€)*

	2001	2002	2003
All institutions	11,055	12,245	12,096
Universities	15,468	16,028	19,527
Specialised university institutions	21,196	23,391	25,594
University colleges	8,231	8,403	9,149

Ordinary students at Norwegian universities and colleges do not pay fees to the institutions; only a mandatory but limited amount is paid to the student welfare organisations. Institutions may charge fees for specific further and continuing education courses, but the amount is relatively limited. Until now, there has not been any real debate about introducing student fees. In the proposed new law, the principle of free higher education is for the first time legally stated. There is a tendency for the institutions to increase fees for examinations and administration (e.g. for photocopying) which has recently aroused some debate about the introduction of fees through the backdoor.

The fact that Norway does not follow the general international trend towards increasing private contributions could of course be explained by the strong state economy due to the income from oil. However, none of the other Nordic countries that are not in the same favourable economic situation as Norway has so far introduced tuition fees. One exception is Denmark which is about to introduce fees for foreign students. In the Nordic countries higher education policies are guided by welfare state policy, where everybody in principle has the right – though not legal right – to access higher education (Aamodt and Kyvik 2005). A provocative question is why economic contributions from students seem to be absolutely unacceptable in the Nordic countries, while there is little resistance to patients being charged for medical examinations, and there is no public subsidy for dental care for adults in Norway.

But even if tuition in Norwegian higher education is free, the costs of studying are still considerable, especially foregone earnings, since university programmes until now have been very long, 6–7 years formally. In this context, the system of financial support for students has a central position within the educational system. The student support system to help students cover their costs of living during their studies is an important part of the total funding of higher education. The system of student support in Norway follows the same principles as in the other Nordic countries, even if there are also considerable differences. Two main characteristics of these principles are direct and universal support. The support goes directly to students, and is not means tested according to the parents' economic situation. Means testing of student loans and grants was abolished in the late 1960s, partly due to pressure from the students. This implies that students are considered responsible for covering the costs of their education – mainly through foregone earnings – and

that parents are not expected to contribute. There is no taxation reduction for students' parents, and students living at home do not get full support. Of course students get some support from their parents, for example by living free in the parents' home for some years. But compared to many other countries, the dependency on parents is low. Support from the state is given as direct support. Only to a limited degree are students' costs of living subsidised. There are relatively few student hostels, and these as well as the food in student restaurants reflect real costs.

The other main characteristic of the Norwegian student support system is that following World War II it has been predominantly a loan system. Since the loan fund was established in 1947, support for students has been a combination of loans and grants, and, even though the balance between loans and grants has varied considerably, the main component has always been the loan. Students have of course fought for the highest possible grant share, but the basic principle of student loans has never been questioned. The legitimacy of the loan system should also be understood in light of the fact that the support system had been established by demand from students, and student organisations are represented on the board of the loan fund. Even if the basic principles have been kept, the rules and regulations of the student support system have changed over the years. In the early 1990s, the grants' share of support was as low as 14 per cent. After that, the grants' share increased. After the implementation of the quality reform, 40 per cent of support was in the form of grants. However, support is initially awarded as a loan, and then transferred to grants as students pass their yearly examinations. If students pass all their examinations, the grants become 40 per cent of the total support.

The main set of rules for student support, the support level and the repayment regulations in Norway are set by Parliament and organised by the loan fund. The loan fund administers both the payment of support and the repayment of loans. The loan fund may be characterised as operating within the intersection of educational policy, welfare state policy and credit policy. The educational policy function is obvious and the most important. The welfare state aspects are linked to the fact that support is universal, not means tested or merit based, and at the same time there are rules for the support of students with children or students who get sick (repayment may be postponed due to sickness or unemployment). However, the loan part of the support is expected to be repaid, and in that respect the loan fund also operates as an ordinary bank. The rate of interest is set according to the state's own credit cost, and, in the public budget, student loans are part of the general state credit system.

The level of interest has always been debated. Student loans are interest free during the study period after which students pay interest. The system for deciding the interest rate has varied over time, but the rate follows the general trend on bank loans. Today the interest rate is set according to the states' cost of borrowing money, and the level is comparable to a loan for housing. Today, the rate of interest in Norway is historically low, less than three per cent, but it has been as high as 12–14 per cent.

The upper level of annual support to students is at the moment about €10,000 per year for students not living with their parents. This amount is expected to cover all the student's expenses: books and other study material, accommodation, meals and extras. The level of support has to be related to the cost of living in Norway, which

is high. Both housing and food are expensive, especially in the cities, so it is no surprise that about half of all students have some paid work during their studies. In addition, the accumulated debt at graduation is quite high: for a higher university degree it is usually at the level of €30,000 – €35,000.

An examination of the repayment of study loans (Opheim 2000) shows that families with student loans have a higher total debt relative to their income than families without student loans. This means that graduates who have accumulated high study debts have to postpone or reduce their investment in, for example, housing. Furthermore, families with student loans to repay have a higher frequency of repayment problems and generally reduced ability to make savings.

Those who graduated when the grants were lower, and the rate of interest was higher than today, were concerned about the burden of repayment and interest. The fact that salaries for new graduates are moderate, coupled with the costs of buying a first house, has made the first years after graduation quite tough. This of course also affects students' strategies, especially in their final years. Many students have not applied for a full loan, and have tried to earn money from work. It is possible that the combination of more generous grants and shorter study programmes after the quality reform will improve the situation, and also one could expect the conditional grants to stimulate students to finish studies within time, but it is too early to assess this.

Compared to most other countries, the Norwegian funding system must seem quite generous from the students' perspective: no tuition fees and 40 per cent of support awarded as grants and interest-free loans during studies. Still, the long study periods, high living costs and low rate of return lead to the conclusion that Norwegian higher education is *free but expensive*.

## 6. INCREASING ENROLMENT IN HIGHER EDUCATION

University enrolment started to expand in the second half of the 1950s, and between 1960 and 1975 enrolment increased fourfold. After the establishment of the college sector commenced in 1970, most of the expansion in higher education has taken place in this sector.

Expansion of higher education since 1971 is shown in figure 3. The number of university students remained stable between the mid-1970s and 1987, while the colleges expanded. This was in line with both political priorities and students' aspirations. In Norway, entry into the professional programmes of the state colleges has usually been strictly regulated, while many university programmes were relatively open. After 1988 there was rapid and unexpected growth in the number of applicants, and many new students enrolled in university programmes in humanities and social sciences since rapid expansion was less easy in professional programmes. Expansion in study places in health programmes, teacher training and other state college programmes was then prioritised, and, up to 1995, both sectors expanded. After 1995 university enrolment again stagnated while the colleges continued to expand.

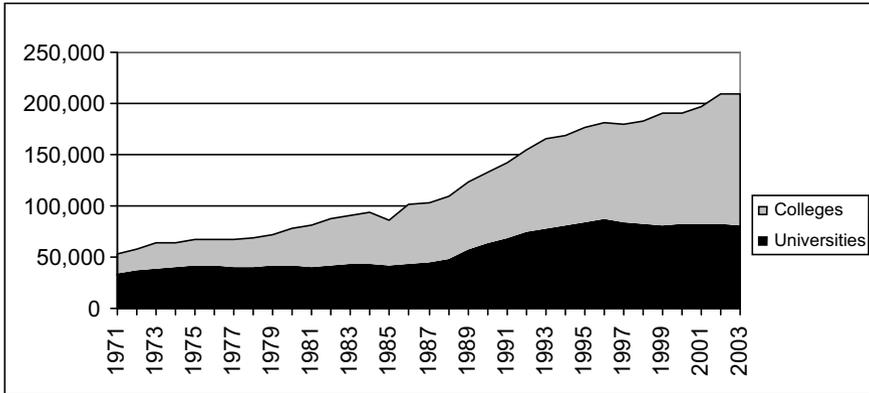


Figure 3. Students at universities and colleges, 1971–2003

To get a better picture of enrolment in Norwegian higher education, we have also calculated the participation rates in each age group between 19 years, which is the normal age for leaving upper secondary school, and 28 years (see table 4). The participation rate in the youngest group is very low, indicating that many students postpone their entry into higher education after leaving upper secondary school.

Table 4. Participation rates by age (%)

Age	1992	2002
19	13.1	13.6
20	20.8	28.0
21	24.5	33.8
22	24.3	34.4
23	22.9	31.3
24	19.2	27.6
25	15.4	23.0
26	12.4	18.8
27	9.9	15.5
28	7.9	12.7

The Norwegian student population is fairly old, the highest participation rates being in the age groups 21, 22 and 23 years. This profile is caused partly by late entry into higher education and partly because of long study duration. Long study duration is due to long formal study length at the university, a relatively slow study progression rate and a high frequency of ‘stop-outs’ during the course of study.

Participation rates have increased quite strongly between 1992 and 2002, which illustrates the strong growth in total enrolment in that period. But still, the participation rate is fairly low compared to what we would expect from a country

with high enrolment in higher education. An alternative way of illustrating enrolment patterns is to calculate entry rates for specific age cohorts (see figure 4). These calculations are based on register statistics and hence comprise the entire age group.

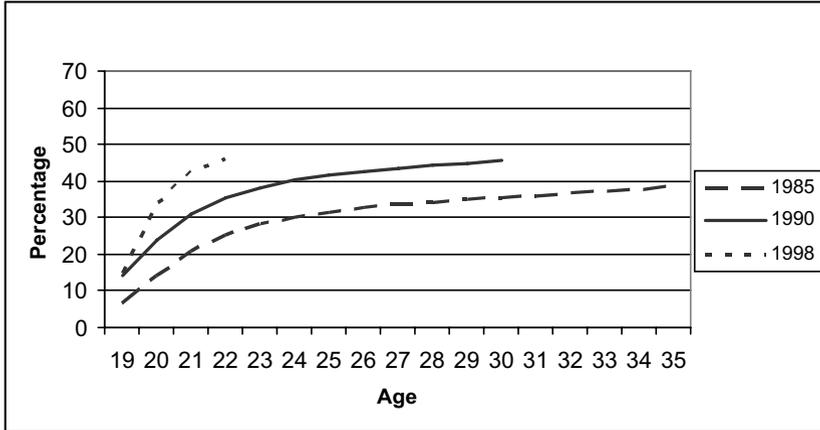


Figure 4. Cumulated percentages of the 19 year old age cohorts in 1985, 1990 and 1998 entering higher education

Figure 4 shows that a very high proportion of new students has waited one or more years after finishing upper secondary education before entering higher education, and therefore the calculation of the entry rates needs to follow the cohorts over a long period. 'New student' in these data is net enrolment, defined as one who has never before attended any higher education. Still, at the age of more than 30 years, new students continue to enter higher education. The figure, however, clearly indicates that the proportion of the age groups being enrolled in higher education is increasing. At the age of 22 years, 25 per cent of those who were 19 years in 1985 had entered higher education. In the age cohort born 13 years later, that is, being 19 years in 1998, 46 per cent had been enrolled, and the steepness of the curve indicates that the figure will approach 60 per cent in due course. This figure therefore tells a quite different story about participation in higher education than the participation rates per age group in table 4. One of the reasons for this deviation is drop-out and stop-out rates among Norwegian students. Sixty per cent of students entering higher education is relatively high in a comparative OECD perspective, but not unique. The level is relatively equal to the other Nordic countries. Also note that due to relatively high drop-out rates in the Norwegian system, the percentage of the age cohort graduating will be considerably lower.

## 7. HAS INCREASING ENROLMENT LED TO MORE EQUITABLE ACCESS?

One of the main arguments behind the policy of expansion and a rationale for not introducing fees and maintaining the student support system has been the inclusion of new groups in higher education and the reduction of inequalities due to gender, place of residence and social class. Since the proportion of the age groups enrolled in higher education has increased from less than 10 per cent to 50–60 per cent over four decades, it would seem almost self-evident that inequalities have diminished. In one sense, this is of course the case: under-represented groups – women, youth from remote areas and from lower social strata – have increased their participation numerically. But this is not to say that these groups have obtained equal representation in higher education.

Hernes (1974) uses three concepts of equality: ‘formal equality’, ‘equality of opportunity’ and ‘equality of results’. In modern societies, ‘formal equality’ has long been established, since no student could legally be discriminated against in terms of gender, place of residence, ethnicity or social origins. ‘Equality of results’ would imply the use of certain compensatory measures meaning that individuals are consciously treated differently. Such compensatory mechanisms can of course be found in the school system, for example, to help students with a broad range of learning problems. If such problems are found more frequently in lower social strata, these measures may have an indirect compensatory effect on social patterns of access to higher education. For example, efforts to help students with language problems may enhance educational opportunities for ethnic minorities. There are also examples of quota-based access to higher education by gender to increase the enrolment of the under-represented sex, or to admit students who have not received an academic upper secondary education. However, compensatory measures consciously and openly targeted at young people *from specific social backgrounds as such* are rarely to be found. Therefore, it is the concept of ‘equality of opportunity’ which has proven to be most relevant for both policy and research.

In Norway, enrolment by gender and by place of residence has become more equitable. There is a majority of female students, about 58 per cent. In most former male-dominated fields of study, enrolment is today either gender neutral or even female dominated. However, in technology there is still a strong majority of male students, and programmes like nursing and preschool teaching are as female dominated as ever. Also enrolment difference by place of residence has been reduced, but the number of students from rural regions is still relatively lower than from urban areas.

Inequality by social origin, however, still seems to persist – a pattern that is also found in most other countries (Shavit and Blossfeld 1993). In Norway, Aamodt (1982) reported decreasing social differences in access patterns between 1960 and 1975, while Knudsen, Sørensen and Aamodt (1993) found only a weak tendency towards decreasing social inequality of access to higher education between 1980 and 1990. This tendency seems to have levelled out in the 1990s (Hansen 1999), while Aamodt and Stølen (2003) found interesting indications of reduced inequalities among the most recent groups entering higher education.

We will present some findings for higher education as a whole as well as specific data on university enrolment. These results are based on register data, and since they comprise the whole population group there are no uncertainties due to sampling.

Figure 5 presents the cumulated enrolment rates in two cohorts, those who were 19 years in 1985 and those who were 19 years in 1998, by fathers' education. 'Low' includes only compulsory schooling, while 'high' includes higher university degree. The figure comprises all institutions of higher education, including studying abroad. In the 1985 cohort, the enrolment rate in the low education group approaches 20 per cent at the age of 30 years, while it is more than 80 per cent in the highest group. The 1998 cohort can be traced until the age of 22 years, and at that age the enrolment rates are 25 per cent and 80 per cent respectively. Hence there are signs that the gap in enrolment in higher education according to students' fathers' level of education had narrowed by the turn of the century. One should, however, be aware that also in this period the educational level of the parents' generation increased, so that the figures are not strictly comparable.

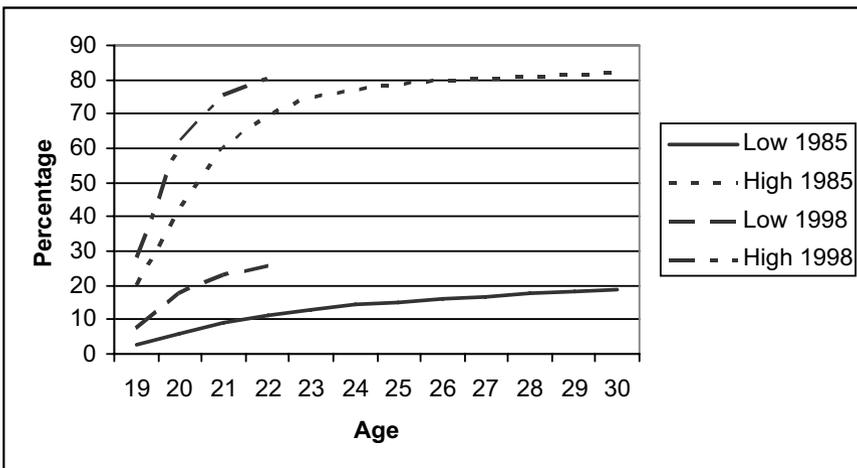


Figure 5. Enrolment rates among the 19 year old age cohorts in 1985 and 1998 by fathers' education

Since enrolment in universities traditionally has been more biased according to social background than in colleges, the university enrolment gap by fathers' education is larger than that for total enrolment. In the 1985 cohort, at the age of 22, cumulated university enrolment was 41.6 per cent among those having fathers with university education compared to 3.1 per cent among those having fathers with only compulsory schooling. The figures for the 1998 cohort were 50.4 per cent and 8.1 per cent respectively. The gap measured in percentage differences has increased, but the relative gap has decreased during this period.

In addition to measuring enrolment gaps between social groups, we are also interested in how this has affected the social composition of the student population.

In this regard, we also want to test the often mentioned notion about expansion in higher education leading to more untraditional students, including more 'first generation academics'. In table 5, to be able to make a comparison over a longer time span, we have included university enrolments only, while fathers' education includes all levels of higher education.

In table 5 we see that the percentage of students having fathers with higher education has increased during the last 25 years. This is of course related to the rapid increase in the percentage of the relevant age groups in the population having completed higher education from one out of ten to one out of four. Hence, the percentage of 'first generation academics' is actually *decreasing* in spite of the growth in enrolment.

*Table 5. University students having fathers with higher education (%)*

	<i>University students</i>	<i>Total age group</i>
Students 19–24 years in 1975*	35.7	10.3
Students who started studying at 22 years of age in 1988	45.7	15.6
Students who started studying at 22 years of age in 2001	49.5	24.9

\*Aamodt 1982

All in all, the overall conclusion is that the expanding access to higher education over the last decades has led to surprisingly small changes in the enrolment pattern by socio-economic background. Still, persisting inequality is a much more striking feature than the tendencies towards equity. However, as we move towards mass higher education, the differences in enrolment between sectors and programmes within higher education are becoming perhaps as interesting as the inequity in enrolment in higher education as a whole. Norwegian and Swedish data show that enrolment in universities has been far more socially biased than enrolment in the short-term college programmes, and that enrolment in the most prestigious study programmes like medicine, law and architecture is more socially biased than in other university programmes (Aamodt 1982; Hansen 1999).

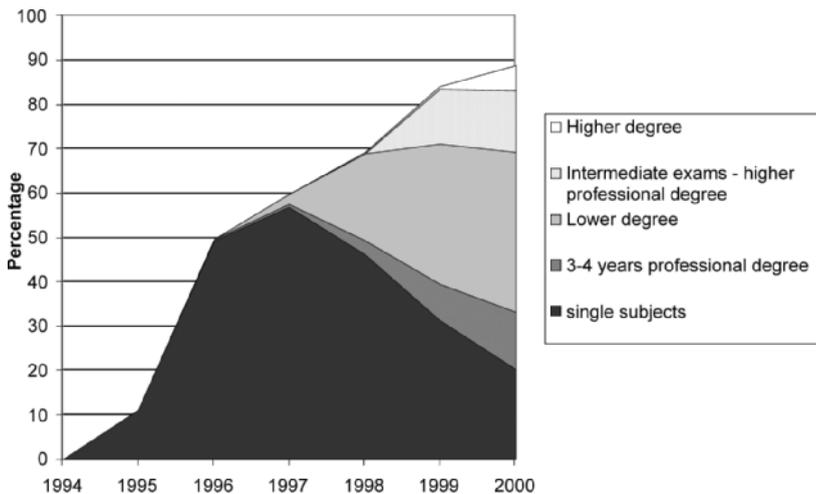
There is another aspect of equity besides equitable enrolment which is often overlooked in the Norwegian debate: how are public funds to higher education distributed? The paradox is, especially since the Norwegian support system is universal and not means tested, if support is increased in order to reduce the barriers to enrolment among unprivileged groups, this unavoidably leads to more money transferred to the privileged groups. Taxpayers' money, collected from all socio-economic groups in the country, is transferred to students among whom the most well off are over-represented, and who regardless of social origin will obtain positions with higher income than average in the future.

## 8. STUDY EFFICIENCY

One of the aims of the Norwegian student support system is to contribute to the efficient completion of degrees. Therefore, while this chapter focuses primarily on access and enrolment, we also need to present a few indicators on study persistence. Data presented above indicate that both drop-out and stop-out are rather frequent. Statistics on the average number of completed credits indicate severe problems in study progress, especially at the universities. During a normal study year a full-time student is expected to complete 20 credits, but on average students complete less than 12 credits.

In a study by Aamodt (2001), based on register data for higher education entrants in 1994, the results show that 23.2 per cent of new university students left higher education within the first year of study, and additionally 10 per cent shifted to a college. Not all drop-out was final, a high proportion returned after a break of one or more years.

Study progression is most problematic in loosely organised study programmes typical of the faculty of humanities, social sciences and natural sciences, as well as in law studies. Næss (2003) followed the student cohort starting in one of these study programmes in 1994 until 2000 (see figure 6).



Source: Næss 2003

*Figure 6. Obtained degree among studies in humanities, social sciences, natural sciences and law, 1994–2000*

After six years, more than 10 per cent of students still had not completed any examination. Only a very small proportion had completed a higher university degree – with a formal duration of six years – but more had completed intermediary

examinations. The highest proportion had completed a lower university degree, and more than 20 per cent had completed only single subjects. We should take into consideration that not all students aim at a degree, but, still, study progression must be viewed as weak. Considering drop-out, stop-out and time to degree, it is reasonable to conclude that Norwegian university students have a rather 'untidy' course of study. However, progression in professional university programmes like medicine and graduate engineering, as well as in professional college programmes (Børing 2004), is better, with the exception of undergraduate engineering programmes.

Slow study progression has often been connected to the student support system leaving students with too little money, and hence leading to the need for a considerable amount of paid work to be performed by students during their study years. Time spent on study by Norwegian students is generally low – 30 hours per week on average including both classes and individual coursework (Wiers-Jenssen and Aamodt 2002; Hovdhaugen 2004). About half of all students have some paid work which averages out to about 10 hours per week. The relationship between paid work and study hours is, however, rather weak. One hour of work leads to a reduction in study effort of only about 12 minutes. Large differences between study programmes, on the other hand, indicate that the organisation of studies has a stronger impact than student economy.

## 9. DISCUSSION

Our results concerning total enrolment, inequity of access as well as study persistence are influenced by a much broader set of factors than models for funding of higher education and student support. We do not intend to present an evaluation of how the funding models produce results that are in accordance with policy goals. Nevertheless, funding is expected to play a major role in explaining the patterns.

Expansion in higher education in Norway has been strong, and the political aim to increase the educational level of the workforce has in general been achieved. Compared to other OECD countries, the proportion completing higher education in Norway is high. But even within this overall picture, there has been more or less a permanent undersupply in certain professions, especially of medical doctors.

Generally, the question of oversupply is most relevant considering that higher education in Norway is free, and that public support of students is rather generous. The low cost of higher education combined with the broadening of the pathways to higher education and a political willingness to fund an increasing number of study places emphasise the risk of over-investment in higher education. Student numbers for each study programme and institution, or rather the economic frames, used to be decided by government. These decisions have been based on manpower forecasting only to a limited degree. They are based more on tradition: the institutions received a certain increase from one year to the next. There were no real incentives for institutions to enrol more students than the target numbers. However, to avoid youth unemployment, around 1990 the institutions were awarded NOK 66,000 for each new student. This resulted in very rapid (and quite uncontrolled) growth, first in

university programmes with relatively unregulated access, and later also in professional programmes. Student places have been kept at a high level, and today access is much easier. Actually there is a risk that some institutions cannot fill all places.

Over-investment, on the other hand, may occur if, and only if, both individual demand and the number of available study places lead to a surplus of graduates in relation to labour market demand. Over-stimulation of individual demand may not lead to over-education if access is limited to balance supply and demand – which is not at all trivial. Growing individual demand for higher education which is not met may lead to strong competition – a positive result for the institutions since only the ‘best’ students enrol. But what if the funding of the institutions also stimulates growth beyond reasonable limits?

Over-investment in higher education will sooner or later lead to increasing problems for graduates in terms of obtaining relevant employment. Until now, this transition has been less problematic in Norway than in most other countries, but there are recent signs of a tougher transition. A larger proportion of graduates has entered jobs where higher education is not required. Among some groups of graduates, a growing proportion has had to accept less permanent jobs. So far, Norway has avoided serious oversupply of higher education graduates. At the same time there are indications of a certain maturation of graduates in the labour market which is not primarily due to an economic downturn, but is arising from the rapid expansion that took place since the late 1980s. But so far, our main conclusion is that enrolment in higher education has been reasonably balanced with societal needs, without strong indications of over-investment.

A possible explanation of why access to higher education seems to be fairly balanced with labour market demand is the fact that the economic return from a higher education degree, as mentioned above, is low compared to most other countries. This may cast a damper on the tendency to enter higher education. Furthermore, the relatively low costs of employing higher education graduates may improve employment possibilities.

Our next question is whether the expansion of higher education has made access to higher education more equitable. Most of the aspects of the educational system and policy should lead us to expect that Norway has succeeded more than perhaps any country in obtaining equitable access: Norway in general is an egalitarian society; the educational system is comprehensive with a priority of bringing as many as possible into higher education; higher education tuition is free; and student support is generous. Therefore, for an international audience, it is probably surprising that Norway has not succeeded any better than other countries with respect to some equity issues. Problems associated with gender and geographical location have been positively addressed. But social inequalities show weak signs of being reduced. These conclusions are based on a series of research and statistical indicators. The expansion of the non-university sector, which traditionally has recruited more equitably than the university sector, seems to have made *total enrolment* slightly more equitable. On the other hand, entry rates into the universities and especially to the most prestigious programmes are still very strongly biased according to social group.

Compared to most other countries, the financial barriers to entering higher education are low in the Norwegian system. This means that economical explanations of the inequalities based on family background are not sufficient. The Norwegian context comes near to an experimental situation where we have controlled for the effects of economic capital, to a large extent, leaving us with cultural capital explanations. We do not intend to elaborate further on this topic in this chapter, but rather concentrate on the policy debates.

What are the opinions generally and among the different stakeholders concerning further investment and funding mechanisms?

In general, the opinion that Norway should continue to invest in higher education is much more frequently stated than the opposite. There are generally very few warnings concerning producing too many graduates, but there is some concern about the distribution among study areas, especially that recruitment in the areas of technology and natural sciences is too weak. On the other hand, the labour market for engineers has been variable. At the moment, graduates from the three-year programmes in some fields have serious problems in finding a job. Historically, the concern about qualified applicants not being admitted to higher education in periods when applications strongly exceeded the intake capacity has always been more striking than the concern about oversupply of graduates. One reason for this is that unemployment in general has never been very high in Norway, and most graduates are able to find relevant work within half a year of graduation. The decade between the mid-1970s and mid-1980s, however, deviated from this. After the very strong expansion in university education, there were indications of saturation in some fields, especially in humanities, and also there was a slightly more sceptical attitude in general towards the usefulness of long academic education. But from 1988, the situation changed: enrolment again increased strongly, and a revitalised belief in the link between higher education and the economy emerged.

Most recently, the balance between demand and supply of study places has shifted again, and there is at the moment a problem that some study programmes at specific institutions have not been able to fill their quota. This indicates that there is a certain over-capacity or at least an imbalance related to individual demand.

## 10. CHANGING POLICIES

So far, this discussion has not taken the quality reform into account. Since this reform relates directly to the topics discussed here, this chapter would be somewhat outdated without taking this reform into consideration.

The reform was passed in Parliament in 2001 and implemented in 2003. The reform encompasses the following elements:

- change in governance at the institutional level;
- increased institutional autonomy;
- new funding formula for the institutions;
- NOKUT – The Norwegian Agency for Quality Assurance in Education;
- new degree structure;

- new forms of student guidance, evaluation and assessment;
- new financial support for students;
- internationalisation.

A number of these reform elements may affect enrolment in higher education. The new degree structure mainly affects the degrees awarded by the universities which have changed from a 4+2 to a 3+2 structure. The new university study programmes are more strictly organised, regulated and prescribed, replacing programmes where students had a high degree of choice. Combined with reforms in teaching and learning, this can be expected to lead to shorter study durations and more efficient completion of studies. But, in addition, it seems that these new degrees have made university programmes more attractive, and has led to an increasing number of applicants to the universities, while some colleges have lost in the competition.

A new funding model, introducing a stronger degree of funding based on incentives, has been introduced, and 25 per cent of the budget is allocated on the basis of completed examinations. This has led to the concern that institutions no longer 'can afford' not to let students pass.

Both the new funding formula and the increased autonomy given to institutions may change the principles for regulating access. There are no longer any national targets set for the intake of students. The institutions are free to establish new study programmes or to expand existing ones. The incentives are based on student numbers and the production of credits and graduates. The new funding system results in strengthened competition between institutions to attract students, and especially 'good' students who are able to succeed. It is far too early to assess the outcome of these changes and how institutions will operate in this newly established market, but so far it seems that the universities and the big city-based institutions have been winners, while smaller state colleges, especially those located in remote places, have experienced problems filling their quotas.

The institutions have much more freedom to establish new study programmes, and the intake capacity is no longer set by the government. This has led to a wide range of new study programmes being established after the quality reform. So far, perhaps the strongest indication of a more market-oriented system is that the institutions have developed a much more conscious marketing strategy to inform and attract new students, and spending on marketing has increased strongly. One of the most visible changes is perhaps seen at the largest university, the University of Oslo, which has developed quite professional information brochures, not only in terms of appearance, but also offering much better information about study programmes and the institution. The results seem positive. The number of applicants has increased very strongly since the introduction of the quality reform, with the University of Oslo being one of the winners in the new struggle for more or better students.

The new regime on access regulation raises some interesting issues and problems. The first question is what strategies will the different institutions develop to maximise their income from the new funding system – variations which could be

expected to go along an axis of attractiveness among the students. Institutions which have a surplus of applicants can choose to either increase their intake or maintain the intake level in order to select the best students (or a combination of both). The strategy of the University of Oslo seems to be the second one, and questions have already been raised whether this is going to result in an elite institution. Keeping the intake, but raising the academic standards among new students, may improve the success rate among students, which in time may result in increased funding based on production indicators. Some of the attractive state colleges on the other hand have increased their enrolment considerably. This may be related to the fact that pass rates in professional programmes at these institutions are generally much better than the universities'. Institutions less attractive in terms of the student market have fewer options: they will probably more or less be forced to admit all applicants. This may increase the risk of decreasing success rates among students, and hence the loss of funding. The pressure to lower academic standards to let most students pass will be strong. As long as the total enrolment is high, the situation may be acceptable for most institutions. But if enrolments are stagnant or decreasing, the battle for students may be hard, resulting in the closure of programmes, maybe even institutions. Local political support for small institutions is strong in Norway, counteracting some of the most dramatic possibilities. So far these are only speculations; in the years to come the outcome of the new policy will be visible.

Another dilemma of the new policy is how to take care of the supply of graduates on a national level where there is a much weaker degree of national steering and coordination. Will the sum of all institutions' decisions about enrolment balance the demands at the national level? How can it be avoided that all institutions offer the same types of popular programmes, without any variations according to the institutions' strengths and weaknesses? And how are we able to secure small, exotic and cost-inefficient study programmes? Can we be certain that the institutions will take their national responsibility seriously? Concerning the first question, the central planning system has not worked very well either. The intake capacity in medicine is a good example: Norway has never been able to educate as many doctors as required, and many students in medicine are studying abroad. This imbalance is probably due to limited willingness to fund costly study places, combined with the strong influence of the medical doctors' association that has always tried to keep access low.

Even if there have been many changes in the student support system over the years, the main principles – universalism and a combination of loans and grants, and interest-free loans during the study period – have existed since the early 1970s. The primary changes have been in the proportion of grants and loans, the level of annual support and the interest rate. The quality reform also introduced important changes to the student support system. In the new model, all support is initially given as a loan, and transferred to grants as students pass the annual examinations within the study programme. Once all examinations have been passed, the grant will add up to 40 per cent of the support. Since students do not pay interest on their loans during their studies, they are not affected as long as they study. But students who do not complete their studies will be punished. So far we have no indication about how this reform will affect access or study persistence.

To an international audience, a natural question is whether the present level of funding in Norwegian higher education is sustainable in the long run. This depends on how we define 'sustainable' and of course 'in the long run'. If we define sustainable in terms of the economic resources available, Norway is comparatively very well off. The income from oil makes the Norwegian state enormously wealthy. Even if the production of oil is phased out, the income from gas resources as well as the possible existence of oil resources still not discovered on the continental shelf puts Norway in a rather unique economic position. The main question is therefore – at least in comparison with other OECD countries – not about available money, but rather about political will and priorities. There is strong pressure to spend the oil income on all kinds of good purposes as well as save for the future costs of pensions. Finally, there is the taxpayers' willingness to support higher education. The costs of a high quality higher education system for about 50 per cent of the age group accounts for a considerable proportion of public spending, and could be difficult to maintain if the results are not convincing. However, parents of the large number of present and potential students represent a much larger proportion of the electorate and hence political support than at the time when higher education recruited only a small proportion of the age group. At the moment, there are no clear signs of diminishing political or financial support for higher education. Another question is of course whether the present level of funding of higher education is sufficient. We do not intend to provide an answer to that question, but the main impression is that Norwegian institutions are no worse off than institutions in other OECD countries.

## REFERENCES

- Aaberge, R., A. Bjørklund, M. Jäntti, P.J. Pedersen, N. Smith and T. Wennemo. "Unemployment Shocks and Income Distribution: How Did the Nordic Countries Fare During Their Crises?" *Scandinavian Journal of Economics* 102.1 (2000): 77–99.
- Aamodt, P.O. *Utdanning og sosial bakgrunn (Education and Social Background)*. Samfunnsøkonomiske studier 51. Oslo-Kongsvinger: Statistics Norway, 1982.
- Aamodt, P.O. "Floods, Bottlenecks, and Backwaters: An Analysis of Expansion in Higher Education in Norway." *Higher Education* 30 (1995): 63–80.
- Aamodt, P.O. *Studiegjennomføring og studiefrafall*. NIFU skriftserie nr. 14. Oslo: NIFU, 2001.
- Aamodt, P.O. and S. Kyvik. "Access to Higher Education in the Nordic Countries." In Tapper, E. and D. Palfreyman (eds). *Understanding Mass Higher Education: Comparative Perspectives on Access*. London: Routledge Falmer, 2005, 121–138.
- Aamodt, P.O. and N.M. Stølen. "Vekst i utdanningssystemet." *Utdanning 2003*. Oslo: Statistics Norway, 2003, 69–88.
- Becker, G.S. *Human Capital*. New York: Columbia University Press, 1964.
- Benn, R. and R. Fieldhouse. "Government Policies on University Expansion and Wider Access 1945–51 and 1985–91 Compared." *Studies in Higher Education* 18.3 (1993): 299–313.
- Børing, P. *Studiegjennomføring og studiefrafall ved høyskolene*. NIFU skriftserie nr. 15. Oslo: NIFU, 2004.
- Boudon, R. *Education Opportunity and Social Inequality. Changing Prospects in Western Society*. New York: John Wiley and Sons, 1974.
- Bourdieu, P. and J-C. Passeron. *Reproduction in Education, Society and Culture*. London: Sage, 1977.
- Hægland, T. "Økonomisk avkastning av utdanning." *Utdanning 2003*. Oslo: Statistics Norway, 2003, 197–213.
- Hansen, M. "Sosiale utdanningsforskjeller – hvordan er de blitt forklart? Hvordan bør de forklares?" *Tidsskrift for samfunnsforskning* 27 (1986): 3–28.
- Hansen, M. "Utdanningspolitikk og ulikhet." *Tidsskrift for samfunnsforskning* 40 (1999): 173–203.

- Hernes, G. "Om ulikhetens reproduksjon." *Forskningens lys*. Oslo: NAVF, 1974.
- Hovdhaugen, E. *Tidsbruk og ambisjon*. NIFU skriftserie 16. Oslo: NIFU, 2004.
- Johnstone, D. Bruce. "International Comparisons of Student Financial Support." In Woodhall, M. (ed.). *Financial Support for Students: Grants, Loans or Graduate Tax?* London: Kogan Page, 1989, 24–44.
- Knudsen, K., Aa.B. Sørensen and P.O. Aamodt. *Endringer i den sosiale rekrutteringen til høyere utdanning etter 1980*. Oslo: NAVFs utredningsinstitutt, 1993.
- Meyer, J.W., F.O. Ramirez, R. Rubinson and J. Boli-Bennet. "The World Educational Revolution 1950–1970." *Sociology of Education* 50.4 (1977): 242–258.
- Meyer, J.W., F.O. Ramirez and Y.N. Soysal. "World Expansion in Mass Higher Education." *Sociology of Education* 65.2 (1992): 128–149.
- Næss, T. *Studieprogresjon, studieeffektivitet og frafall ve de frie fagstudiene ved universitetene*. NIFU skriftserie nr. 16. Oslo: NIFU, 2003.
- OECD. *Economic Survey of Norway*. Paris: OECD, 1997.
- OECD. *Education at a Glance*. Paris: OECD, 2004.
- Opheim, V. *Tilbakebetaling av studielån*. NIFU rapport 11. Oslo: NIFU, 2000.
- Shavit, Y. and H.P. Blossfeld (eds). *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*. Boulder, Colorado: Westview Press, 1993.
- Wiers-Jenssen, J. and P.O. Aamodt. *Trivsel og innsats. Studenters tilfredshet med lærested og tid brukt til studier*. NIFU rapport 1. Oslo: NIFU, 2002.
- Woodhall, M. "Financial Aid." In Clark, Burton R. and Guy Neave (eds). *The Encyclopedia of Higher Education, vol. 2, Analytical Perspectives*. Oxford: Pergamon Press, 1992, 1358–1367.

## CONCLUSION

The chapters in this volume provide a rich overview of economic and political rationales and current practices in higher educational finance, referring mainly to the *mature economies* (essentially corresponding to the member countries of the Organization for Economic Co-operation and Development, or OECD) and mainly to those policies and practices associated with *cost-sharing*, or the shift of higher education costs from predominant (or even near exclusive) dependence on government to being shared among governments (or taxpayers), parents and students. Such a policy shift – and it is occurring throughout most of the world – generally entails some combination of tuition fees (devoted to basic instructional costs), other fees, and increased user charges for food, lodging and other privately borne expenses of higher education. Sometimes, a policy of cost-sharing entails a reduction in grants and loan subsidies. In some countries, policies of cost-sharing also include public encouragement of tuition-dependent private institutions to absorb some of the enrolment demand that governments are unable or unwilling to finance in the public sector. But in all cases, policies of increased cost-sharing are both driven and shaped by a complex combination of popular ideology (most frequently anti cost-sharing), higher educational revenue needs and political expediency.

A consideration of higher educational finance with an emphasis on the ideologically and often politically contested policies and practices of cost-sharing necessarily raises issues of university governance, institutional management, public priorities and the perceived equity (or absence thereof) of higher educational participation. Higher education tends to be partaken of disproportionately by the sons and daughters of the educated and well-to-do even when fully subsidised (i.e. with all or nearly all higher educational expenses borne by the taxpayer and few or none by parents or students). Because cost-sharing by definition means increasing higher educational expenses to parents and/or students, policies to increase the portion of costs borne by parents and/or students are almost always accompanied by controversy over the impact on *equity* – specifically, on the effects on higher educational opportunities and attainments of those from lower socio-economic classes and other traditionally under-represented groups. For this reason, policies and programmes of cost-sharing are generally considered along with policies and programmes of student assistance (grants, loans and combinations of the two) as well as by other means to maintain, and desirably to increase, higher educational participation. This rich mixture of university and system financial viability, the politics and ideologies of markets and public sectors, and the universally professed,

but frustratingly elusive, goal of participatory equity constituted the ingredients for the 2004 Douro Seminar and underlie all of the chapters in this volume.

## 1. CAUTIONS AND CAVEATS

Any chapter purporting to present conclusions on such complex and politically charged issues needs to be accompanied by cautions and caveats. We begin our concluding chapter with the following three. First, this concluding chapter is not a summary, as such, of the foregoing chapters, either individually or *in toto*. Each of the chapters was written for and extensively discussed at the fourth annual Douro Seminar on Higher Education, held in the fall of 2004 at a conference site in Portugal's Douro Valley. The papers were subsequently revised, informed by the rich seminar discussion and assisted by discussants and the editors. Each chapter therefore stands on its own. Rather, while we believe this concluding chapter to be in accord with, and essentially drawn from, the papers and the ensuing discussions, the conclusions below remain those of the editors, who take responsibility for any errors of commission or omission.

Second, even though chapters and therefore our conclusions are focused on countries that exhibit considerable similarities in their forms of government, economic orientations and institutions of higher education (especially in the classical university form), there are also very considerable differences among these countries and their higher educational systems that necessarily limit the generalisability of most conclusions. For example, while there is danger in inferring too much from broad patterns, there are clearly differences between the Anglo Saxon and the Continental European countries in the political, cultural and institutional embrace of markets and the tenets of economic liberalism. There are differences between Scandinavia and most other OECD countries in the degree to which parents are expected to contribute financially to the higher education of children. Australia, New Zealand and the UK, in contrast to the United States and Canada, have different public and private views toward, and forms of, student loans. There are differences in the form of university governance and degree structures between the European Continent, Great Britain and North America. (These differences may – or may not – be diminishing because of the 1999 Bologna and subsequent agreements among the European ministers of higher education.)

There are also significant difference in the presence of private higher education, with the United States and Japan relying much more than Europe on private non-profit universities and colleges. Such institutions rely much more on tuition fees, and also, particularly in the United States, on private philanthropic support. Most also receive substantial governmental/taxpayer support – sometimes, as in Japan, directly, but mainly indirectly in the form of student assistance and research support, and especially in the case of the United States, tax advantages in support of philanthropic donations, parental savings for the college education of their children, and institutional borrowing. In other respects – for example, institutional mission, curriculum, and the varying degrees of prestige and student selectivity – these institutions are much like their public college and university counterparts. These

private, non-profit colleges and universities also play a major role in East Asia and Latin America and more recently in former Communist Central and Eastern Europe, but – with the possible exception of Portugal – they play a very minor role in Western Europe.

And to make such differences even more complicating, all of these countries and their higher education systems are rapidly changing, including changes in governments and their political and economic orientations, higher educational enrolments (almost always increasing), university governance, forms of financial assistance and the faith (or absence of faith) of governments in their universities. All of these (and more) differences, then, make lasting and generalisable conclusions difficult.

Third (and related to the caveat above), while the focus of the seminar and of this volume is on what we have labelled the *mature economies* (essentially the member countries of the OECD), we believe that most of the fundamental aims of higher education, as well as most of the problems – particularly those emanating from rapidly rising costs, the apparent shortage of governmental revenues and the challenge of increasing the participation of underserved populations – apply also to the so-called *transitional* countries of Central and Eastern Europe and the countries emerging from the former Soviet Union as well as to most of the world's developing countries. Many of the contributors to this volume have had experiences with higher educational problems and reforms in countries other than their own and other OECD countries and have been informed by both the similarities and the differences with both transitional and developing countries. Thus, we believe that most of our policy conclusions have relevance to countries outside the focus countries, although the second caveat above, regarding differences and complexities, applies even more to the applicability of cost-sharing to countries outside the mature economies of the OECD.

## 2. COMMONALITIES OF GOALS AND PROBLEMS

In spite of these differences, and forming the backdrop for the policy conclusions that we draw below, we believe that there are higher educational goals common to virtually all countries. These include the familiar university purposes of providing advanced education and professional training, research and other forms of academic scholarship, and service to the wider society. The 21<sup>st</sup> century has ushered in what has come to be known as the *knowledge society*, in which economic competitiveness as well as the civic and social health of societies depend to greater and greater degrees on universities and their ability both to generate new knowledge and to disseminate this knowledge to larger portions of the population.

We believe as well that there are certain problems that are also common to virtually all countries and that form the rest of the underlying backdrop to this volume's consideration of the policies and programmes of cost-sharing. At the core of these problems are the sharply rising costs of higher education, caused partly by the productivity resistant nature of higher education (as is true of many other labour intensive services), exacerbated by the pressures of enrolment increases and the many other expectations that societies are increasingly placing on their universities

and other institutions of higher education. Because most institutions and most national systems of higher education have not received increasing public, or taxpayer-derived, revenues commensurate with these increasing cost pressures, these upward pressures on costs, in virtually all countries, have constrained needed expenditures, limited and sometimes capped enrolments, and constituted a major force behind *revenue diversification*, or the search for supplemental, non-governmental revenue – the principal source of which, for most countries, is tuition fees and other revenues from parents and students.

The seeming inability of governmental, or taxpayer-derived, revenue to keep pace with the increasing cost pressures is viewed by some opponents of cost-sharing as the mere artefact of political choices. These may include the choice to not impose additional taxes on the populace, or the choice to remain with the European Euro Community and to forgo the alternative of massive deficit spending, or the choice to spend the available taxpayer revenues on public goods and services other than the needed expansion of public higher education. However, this view ignores the reality of the sheer difficulty in most countries of raising additional taxes – particularly raising taxes with a *progressive* incidence (i.e. ultimately borne by those most able to pay). It ignores the constraints of international capital markets and the increasing limitations on inflationary deficit financing. It also ignores the very substantial queue in all countries of unmet public need awaiting the availability of additional governmental funding. While all of us would argue for the retention of those public revenues currently devoted to higher education, and most of us would like to see higher education considerably higher in the queue for additional public funding than it currently seems to be in many countries, we also believe that the increasing revenue needs of higher education in almost all countries will continue to exceed by a considerable margin any likely additional governmental, or taxpayer-derived, revenues.

### 3. CONCLUSIONS

With all of the above mentioned cautions and caveats, and with the background of higher educational costs in nearly all countries increasing faster than the likely increase in available governmental revenues, the chapters in this volume and the seminar from which they emerged seem to support the following conclusions.

#### 3.1. *Cost-sharing as Policy*

3.1.1. The need for public revenue supplementation in higher education – in substantial part by increasing the share borne by parents and/or students – is being implemented or is seriously on the policy table in almost all of the countries within the purview of the seminar and this volume and will continue to be for the politically foreseeable future. There will also continue to be very considerable political opposition, especially to cost-sharing via the imposition of tuition fees where they do not currently exist, as well as to sharp increases (i.e. at rates of increase considerably in excess of prevailing

rates of inflation) where tuition fees already exist. However, Europe is a good example of the slow but steady creep of cost-sharing via the recent emergence of fees in what had been through the 20<sup>th</sup> century the world's last bastion of mostly free higher education. For example, countries within our purview that have recently introduced or increased cost-sharing in the form of tuition fees include Australia, Canada, New Zealand, Austria, Ireland (where they are still not called *tuition* fees), Italy, the Netherlands, Portugal, Spain, the United States and the United Kingdom (see chapters by Chapman; Heller; Teixeira, Rosa and Amaral; Finnie and Usher; and Vossensteyn and De Jong).

- 3.1.2. There are various ways for costs to be shared – or governmental revenue to be supplemented – other than through the imposition of (or steep increase in) tuition fees. One is the imposition of other-than-tuition fees, or non-instructional fees, such as application, examination, graduation, service, technology or access fees like those applied in France (see chapter by Chevaillier and Paul) or Germany (see chapter by Ziegele). Also portrayed as other-than-tuition fees are instructional fees that are restricted only to students who fall behind in their progress toward their degrees, as described in the chapters by Vossensteyn and De Jong and by Ziegele, or similarly restricted to those who score below some cut-off on an entrance examination, as in Eastern and Central Europe and many other former Communist countries. (Although criticised by many scholars and observers of student finance for placing greater financial burdens on those who are likely to be the neediest, and subsidising most of those who would attend anyway, these practices are not so unlike the recent trend in the US and Canada toward merit- rather than need-based aid, as described in the chapters by Heller and by Finnie and Usher.) Another mechanism used by governments to shift costs toward parents or students is the elimination, diminution or even the inflationary erosion of maintenance grants, as in the UK (see chapter by Woodhall and Richards). Finally, such a shift – away from governments or taxpayers and toward students and/or parents – can also be implemented (and the effects partially masked) by a shift in the mix of student assistance from non-repayable grant aid to repayable loan aid, and can be shifted even further by measures to improve student loan recovery rates via higher interest rates, less subsidisation, and improved collection procedures (see chapters by Heller; Woodhall and Richards; Vossensteyn and De Jong; and Finnie and Usher).
- 3.1.3. Governmental policies regarding higher educational finance, including policies of both cost-sharing and student assistance, must balance two somewhat contradictory objectives. The first, as mentioned above, is to obtain additional non-governmental revenue – hopefully to supplement and not to supplant existing tax-derived revenue – both *up-front* (mainly from parents) and *deferred* (mainly from students). The objectives of such supplementary revenue, to most policy analysts, should be: (a) to better keep up with the very rapidly rising costs of higher education, particularly in countries where governmental revenues probably cannot; (b) to expand the

quality of higher education, particularly in countries where quality may have diminished along with the available governmental revenues; and (c) to expand the capacity of higher education – the principal beneficiaries of which are likely to be those presently excluded. The second policy objective is to continue the expansion of participation, and especially to diminish the correlation between higher educational access and success and the socio-economic, ethnic, linguistic and gender circumstances of birth – and to do so in spite of rising costs borne by students and/or parents.

- 3.1.4. Ideally, the combination of governmental revenues, tuition fees (to the extent they exist), other fees, grants (especially means-tested) and student loans (of whatever form) should enhance both policy objectives: that is, to bring in the additional revenue that is theoretically obtainable from cost-sharing, but also to minimise any negative or distorting effects of these increased cost burdens, or debt loads, on student enrolment behaviour. Thus, the total policy mix should not only benefit the institutions with additional revenue, but should also address and compensate for any potentially negative effects of cost-sharing on: (a) higher educational aspirations and preparation; (b) higher educational participation itself; (c) choice of institution or programme; and (d) other significant life choices, such as further training, career, marriage and the like.

### 3.2. *The Impact of Cost-sharing on Access*

- 3.2.1. The consideration of equity as well as revenue goals draws attention to the impact of cost-sharing – that is, the higher educational expenses that must be borne by family or the students themselves – on access. Traditional human capital theory assumes rational economic decision-making, in which individuals weigh the economic and other benefits (appropriately discounted for time) associated with higher education against the direct and indirect costs of higher educational participation, including not just the fees, but also the costs of student living and the opportunity costs of full or partial withdrawal from the labour force during the in-school years. The human capital model is complicated by the considerable variability of economic returns: while a higher education pays off in higher lifetime income on average, its profitability depends on specific job opportunities and other factors that vary according to individuals.
- 3.2.2. Several studies reported by Vossensteyn and De Jong showed neither current nor potential (i.e. secondary school) students to be particularly sensitive to the presence or absence of tuition fees or to increases in such tuition fees. In other words, the demand for higher education – at least in the United States where most of the empirical research has been conducted – seems to be quite inelastic *for most students*. However, studies reported by Heller and Callender as well as by Vossensteyn and De Jong found that decisions to aspire to higher education while in secondary school or to apply, matriculate, persist and graduate from a college or university for low income students or

for students whose academic preparedness and/or academic ambition, for all sorts of reasons, may be marginal, may be quite responsive to changes in tuition fees, student living costs or the amount or form of student financial assistance. As academic ambition and preparedness are almost certainly socially constructed and thus linked to class, ethnicity and gender (see chapter by Callender), the goals of social justice and equity require attention to how governments can overcome these behavioural consequences – without abandoning the pursuit of revenue enhancing cost-sharing altogether.

- 3.2.3. In particular, student loan programmes, which are fundamental to any degree of student-borne cost-sharing, must address the common allegations of *debt* aversion, particularly among lower income and minority families. Callender's chapter presents evidence for the existence of debt aversion, but it is still not entirely clear what actual effect this has on enrolment behaviour (see chapter by Vossensteyn and De Jong) or what alternative there may be that still permits the initiation of what we have concluded to be important measures of cost-sharing.
- 3.2.4. More research, along the lines of the chapters in this volume by Vossensteyn and De Jong, Callender, and Jongbloed, is needed to further explore the full range of *enrolment behaviour* variables, such as higher educational aspiration and preparation in middle and secondary school and the decisions to attend a particular college or university, to pursue a particular programme, to live at home or independently, to attend and/or to work full- or part-time, or to assume debt as opposed to other ways of managing the privately borne costs of higher education. Such research needs to take into consideration students' culturally contextualised knowledge of options, their impression of benefits and costs (especially their effective private opportunity costs), their assessment of, and tolerance for, labour market risk, and other factors, especially those that shed light on the connections between cost-sharing in its fullest sense and the observed correlations in virtually all countries between enrolment behaviour and the attributes of class, ethnicity and gender.
- 3.2.5. Thus, with regard to the impact of cost-sharing on access, advocates of cost-sharing tend to emphasise: (a) the relative tuition price *inelasticity* of demand for higher education, at least on the part of most middle and upper middle class families and students; (b) the presence of many *other-than-financial* explanations to account for the under-representation of lower socio-economic and ethnic minority groups in almost all countries (including countries with no or very low tuition fees such as Scandinavia, Germany or France, and even with no cost-sharing whatsoever such as (in days past) the Soviet Union and other Communist/Socialist states); (c) the theoretical capacity of means-tested grants and student loans to overcome strictly financial barriers to participation; and (d) the theoretical ability of the additional revenue that is made possible through cost-sharing to increase both capacity and means-tested, or targeted, financial assistance – in both cases to the advantage of whatever groups had hitherto been statistically under-represented.
- 3.2.6. Particularly in cases where higher educational places need to be rationed because of limited capacity, the main criterion for admission to the university

will tend to be measured academic ability. Since there is a very strong correlation between academic performance and socio-economic background, situations of supply constraint will be clearly disadvantageous for lower socio-economic and other marginalised groups. In such cases, financial constraints linked to cost-sharing might have been a problem – but resisting tuition fees or increasing grants or loans by themselves clearly cannot alone solve the access problem.

- 3.2.7. On the other hand, those opposed to, or at least more sceptical of, cost-sharing because of its purported detrimental impact on access tend to emphasise the likelihood that children of lower socio-economic or ethnic minority groups (at least to a greater degree than the children of middle and upper classes) will: (a) more likely have imperfect (or even incorrect) information on the costs and benefits of higher education needed to make a rational choice; (b) view what they may perceive as the daunting price of higher education, and conclude that it is simply ‘not for them’ and cease aspiring to, or academically preparing for, higher education; (c) even with information, underestimate the monetary returns to higher education (or similarly, undervalue its non-monetary benefits) and therefore make seemingly rational – but nonetheless incorrect – calculations that the investment may not be worthwhile; and (d) be turned off by the prospect of having to incur substantial indebtedness in their pursuit of higher education (regardless of the so-called economic rationality of such an investment). In short, simply making loans available and assuming that young people making rational cost-benefit calculations can and will access higher education regardless of the socio-economic status of their parents ignores (or takes insufficient account of) the complex cultural contexts of class, ethnicity and gender in which higher educational enrolment behaviour is embedded.

### 3.3. *The Political Preoccupation with Tuition Fees*

- 3.3.1. Political controversy accompanies policies of cost-sharing in all countries, but it is the question of tuition fees that attracts most of the political attention. Yet tuition fees in Europe, with the possible exception of the United Kingdom, represent at most perhaps 10 to 15 per cent of underlying instructional costs: so low as to be arguably almost nominal. Public institutions in the United States and to a somewhat lesser degree in Australia, Canada and New Zealand tend to charge higher tuition fees, measured both in absolute dollars and in the percentage of underlying instructional costs these fees are expected to cover. However, it is important to note that even in the United States, the instructional costs at most public institutions continue to be borne mainly (i.e. in the range of 60 to 80 per cent of costs) by *taxpayers*, at least for in-state undergraduates (see chapter by Heller). As of 2005, the UK is the only European country that seems to be moving closer to the North American tuition fee pattern, although this increase will still be substantially lower and will furthermore be both cushioned and partially obscured by the planned

shift from *up-front* to *deferred* tuition fees in the form of universally available income contingent loans (see chapter by Woodhall and Richards). (It is also important to note that, at least to our knowledge, no ‘mainstream’ politician or policy analyst anywhere – aside from a few distinctly outlying conservative advocates – is seriously advocating today anything even near an *abandonment* of substantial governmental subsidisation of the underlying costs of higher education.)

- 3.3.2. Given this relative modesty of the realistically contemplated range of possible tuition fees, particularly in Europe, the real expenses of higher education – and those that constitute the more serious barriers to widened participation – are much more likely to lie in the costs of student living and in the other expenses that are more commonly borne privately by parents and/or students, even in countries with very low or no tuition fees. Thus, the most significant forms of cost-sharing lie more in the parental or student assumption of expenses such as food, lodging, transportation, telephone, computing, entertainment and all of the other expenses of student living (not to mention the non-cash outlay, but nevertheless real, *opportunity costs* of forgone earnings). While the prospect of a new tuition fee of, say, €750 in a country in which tuition has been free, or an increase of 20 per cent (or a jump from, say, \$4,000 to \$5,000) where public institutions have charged tuition fees for many years, is not to be dismissed as immaterial (i.e. the additional money has to come from somewhere), such expenses, while almost certain to be met with political protests from students (and in Europe, from more than a few faculty), are still dwarfed by the other expenses of student living, which may well be in the range of €6,000–€8,000 or US\$8,000–\$10,000 or more.
- 3.3.3. In light of the political volatility attached to cost-sharing in the form of tuition fees, some countries go to great lengths to avoid calling their cost-sharing a *tuition* fee, even though there may be other fees that are paid by all or most students and that cover, directly or indirectly, portions of the costs of instruction. Thus, many public institutions in the United States separate what are called *tuitions* (in British parlance, tuition fees) from what are called *fees*, and find less student and political resistance to the latter. Such *other-than-tuition* fees are supposedly earmarked for special university services such as application processing, examinations, graduation, technology, transportation, recreation and the like, even though all fees (tuition and otherwise) generally go into the same institutional operating budget and are essentially fungible (i.e. freely transferable). This practice is also found in Ireland and France, while fees, or additional fees, although still not acknowledged to be *tuition* fees, are charged in some German states and elsewhere to students who fall behind in their expected progress toward their degrees (see chapters by Ziegele; Chevaillier and Paul; and Vossensteyn and De Jong). Finally, a substantial shift of costs from governments or taxpayers to parents and students can be effected not through the mechanism of fees at all, but rather, as cited in 3.1.2 above, through the cessation or diminution of government grants or bursaries, the shift of student assistance from non-repayable grants

- to repayable loans, the freezing of grants particularly in an inflationary economy that diminishes the purchasing power of the ‘frozen’ grant, or an increase in the effective rate of interest paid by the borrower on student loans.
- 3.3.4. Obscuring the fact of a tuition fee and probably softening its impact, is the practice in some countries of allowing tuition fees to be *deferred* as opposed to being expected *up-front*, or due at the time of enrolment, and by packaging the repayment obligation as an *income contingent* rather than a *conventional fixed-schedule loan*. This is the case with the Australian Higher Education Contribution Scheme (see chapter by Chapman), Scotland’s mandatory contribution to its University Endowment Fund, and the anticipated (in 2006) extension of mandatory-but-deferred fees to England and Wales (see chapter by Woodhall and Richards). Such plans have garnered widespread attention in part, or so it would seem, because the student’s financial obligations can be portrayed as *unlike tuition fees* and *unlike loans*, even though the obligations are mandatory for all students, and will be repaid – with interest – by most students. But the Australian Higher Education Contribution Scheme has been an undeniable financial and political success (see chapter by Chapman), in part because it channels most of the student financial assistance subsidies toward those borrowers whose higher educational ‘investments’ (in the form of their income contingent loan obligations) fail to pay off in higher lifetime earnings. Although this form of subsidy can be applied as well to conventional fixed-schedule loans (see chapters by Finnie and Usher; and Johnstone), the Australian-style income contingent loan has been especially responsive to the widespread concern for the phenomenon of debt aversion.
- 3.3.5. The foregoing observations raise a policy question of whether there is any importance to being forthright and transparent about the higher educational costs that are to be borne by parents or students – at the possible political loss of the ability to charge tuition fees at all – as opposed to the more politically expedient policy of wrapping tuition fees in the more acceptable packaging of *deferred contributions* and *income contingent obligations* and thereby enhancing the political chance of achieving needed revenue supplementation for a more financially healthy higher education system. Clearly, the UK experience, described in the chapter by Woodhall and Richards and alluded to in the chapter by Johnstone, provides a good, although not yet conclusive, case study.
- 3.3.6. A final example of the political preoccupation with, and resistance to, tuition fees is the practice in the former Communist countries of Eastern and Central Europe (as in Russia and other countries emerging from the former Soviet Union) to profess an official adherence to no tuition fees, but to restrict this ‘free’ higher education to a small number of the most academic elite who pass the entrance examination at a high enough level so as to restrict the number of students admitted tuition free to only the (relatively small) number that the government is able to fund. This allows the universities to admit additional students, frequently quite academically able, on a privately sponsored, or tuition fee-paying, basis. While we may criticise such a use of scarce governmental revenues as both inefficient and inequitable, the practice

is not so very different in principle from trends in the US and Canada that have been moving governmental subsidisation – generally in the form of grants or tuition fee discounts – from students demonstrating *financial need* (and presumably unable to attend without the subsidisation) to students of so-called *academic merit*, many of whom are middle and upper middle class and whose higher educational participation is almost certainly unaffected by the subsidy (see chapters by Heller; Johnstone; and Finnie and Usher).

### 3.4. *Cost-sharing: Parental or Student Obligations?*

- 3.4.1. One of the most fundamental issues raised by a policy of cost-sharing is whether the financial obligation to share in the underlying costs of instruction (i.e. to pay a tuition fee) is to be expected of the parents (to the extent that they are deemed to be financially able) or only of the student – or of both or either at the choice of the family. Cost-sharing in the Scandinavian countries does not assume a financial contribution from parents, either for tuition fees (there are none) or for the costs of student living. Rather, governments, or taxpayers, are assumed to be responsible for instructional costs, and students themselves bear responsibility for the costs of student living through generally available loans, aided by taxpayers to the extent of loan subsidies (see chapter by Per Aamodt). Most other countries base their cost-sharing on the expectation of a parental contribution – at least for traditional-age, first degree students, and to the extent that the family is deemed financially able to contribute. The question of an officially expected parental contribution has been brought back to the table in recent years mainly by the interest in the Australian-type deferred tuition fees – an important feature of which is the ability of all students to be financially independent of their parents – and by the decision of most of the political entities of the United Kingdom to move from an up-front tuition fee, paid for the most part by parents, to a deferred fee, paid for by students. The issue is also being kept alive by the distaste that many European students seem to feel in being considered – for purposes of meeting the financial expenses of higher education – financially dependent children rather than financially independent adults (albeit necessarily dependent on governments and taxpayers for their goal of free higher education and generous living subsidies).

### 3.5. *The Rationale for Cost-sharing*

- 3.5.1. The rationale for cost-sharing – particularly for an *increasing* share of higher educational costs being borne by parents and/or students – may be buttressed by the familiar economic arguments of enhanced efficiency and equity. While we generally support these arguments, we also believe that the arguments based on sheer need for revenue – buttressed by our beliefs that higher educational revenue needs are voracious and that governmental

revenues are limited – are in many ways sufficient and are generally much less contestable.

- 3.5.2. Higher educational cost-sharing will be more compelling and generally more politically acceptable to the degree to which the following propositions are true: (a) enrolment rates are low relative to similarly situated countries (which signals the likelihood of continuing pressures for *additional* enrolments, capacity and revenue); (b) government revenue is limited by slow economic growth and/or by a culture of tax evasion and other limitations on tax collections; (c) additional tax revenue, if it is to be garnered at all, is likely to be raised through revenue raising devices such as excise, utility, business and sales taxes – all of which are likely to be proportional at best and possibly regressive (i.e. borne disproportionately by lower income families); (d) tuition increases can be accompanied by increased grants loans and other measures to maintain or increase participation; (e) higher educational participation at present is demonstrably inequitable, with disproportionately higher educational participation by the sons and daughters of the well-to-do and the better educated; and (f) there is a queue of unmet public need that is politically and substantively compelling and that further increases the opportunity costs – or foregone benefits of alternative expenditures – of additional tax-derived revenues from local taxes.
- 3.5.3. All of the above, when present, support the rationales *for* tuition fees and other forms of cost-sharing. Conversely, when the above conditions are *not* present – that is, when higher educational participation is more nearly equitable, when governmental revenues are more ample and able to be garnered without disproportionate burdens on lower income families, when enrolment pressures and the need for additional higher educational capacity are minimal, and when higher education would be near the head of the queue for additional funding if additional tax revenues were to be found – then both the pressing need and the theoretical public policy justifications for additional shifts of higher educational funding from governments to parents and students are lessened.

### 3.6. *The Role of Student Loans*

- 3.6.1. Student loans play a role in most comprehensive policies of student financial assistance and policies that purport to garner any meaningful contributions from students. At the same time, loan schemes remain one of the most complex and frequently misunderstood elements of cost-sharing. As in the case of cost-sharing generally (as presented above in 3.1.2), student loans seek two very different purposes that are somewhat mutually exclusive in that neither purpose can be maximised without causing damage to the other. Student loans are the principal mechanism for students, whom we generally assume to have little cash of their own at the time of their higher education, to bear a portion of the costs of their higher educational costs. In order for student loans to be an effective mechanism of cost-sharing, the discounted

present value of the repayments must cover a substantial portion of the initial cost of money (i.e. the interest that must be paid to the savers) as well as of the expenses incurred in the origination and collection of the loans. (Most generally available loan schemes assume that taxpayers may be expected to cover all or most of the costs of defaults as well as any costs associated with any income contingent forgiveness of portions of the student loans taken by those whose lifetime earnings turn out to be insufficient to repay the loan in full without undue hardship.)

- 3.6.2. Most generally available student loan programmes, in fact, do not recover even these costs. Rather, most are at least partially, and sometimes highly, subsidised, yielding an instrument of financial assistance that is a combination of a *true loan* and an *effective grant*, the value of the latter being the difference between the discounted present value of the actual repayments and the amount originally borrowed (see chapter by Johnstone). Because loan subsidies have opportunity costs, which may be foregone grants to students or foregone expenditures on institutional quality, and because students' enrolment behaviour does not seem to be particularly sensitive to interest rates anyway (see chapter by Vossensteyn and De Jong), substantial interest subsidies are inefficient and should be avoided.
- 3.6.3. The second objective of student loans is simply to put money in the hands of students in order to enhance participation and equity, especially when parental contributions and other sources of revenue are insufficient. This suggests a need to keep student loans attractive, interest rates modest and repayment regimes manageable, as well as to provide some assurance to the debt averse and relief to those for whom repayments become too burdensome. Because some students may avoid indebtedness or avoid certain lower-paying careers because of a fear of unmanageable debt (see 3.2.3 above and chapter by Callender), an efficient and fair use of interest subsidies is the provision of repayment forgiveness for borrowers whose lifetime earnings are insufficient to repay the indebtedness in a reasonable amount of time.

### 3.7. *Private Higher Education*

- 3.7.1. A form of higher education that was not a prominent topic in the seminar or in the chapters of this volume, and is not yet a significant feature of higher education in most European countries – although it is both important and fast growing in the United States, Latin America and much of Asia – is private higher education. Quite different forms of cost-sharing policies, then, are those that encourage the growth of private (either non-profit or for-profit) institutions, both through permissive regulation and accreditation and through forms of financial assistance. Public financial assistance to private institutions may come through a variety of mechanisms, including direct operating subsidies, student grants and loans that are fully portable to the private sector, eligibility for governmental research and other grants, and forms of capital assistance such as direct governmental grants or guaranteed or subsidised

loans. Such encouragement of a mostly tuition-dependent private sector absorbs some of the higher educational enrolment that might otherwise fall to the government and taxpayer to provide. In addition, the existence of a large and widely popular tuition-dependent private sector, such as in the United States and Japan, in which families have become used to the idea of tuition fees, probably reduces some of the resistance to the idea of tuition fees in the public sector. (In fact, many families and politicians in the United States are likely to resent what they believe to be the all too modest tuition fees in the public institutions.)

Each of these so-called concluding points could have been elaborated upon extensively – but then we would have diminished the purpose of this volume, which is to bring the papers from the 2004 Douro Seminar on Higher Education to the attention of policy makers, scholars and leaders of higher education, politicians and citizens. What our studies and experience have shown is that cost-sharing in one or more of a great variety of forms is here to stay, and almost certainly to expand, as governments struggle with the vexing problem of reconciling the mounting higher educational costs with the limited governmental revenues and the very many competing demands on limited governmental revenue.

The major issue, although presented in this volume in many ways, has to do with the effect of these inevitably increasing cost burdens on access and participation. The good news – to most governments and policy makers, if not necessarily to most students and parents – is that restively modest shifts in the financial burden of higher education from governments or taxpayers to parents and students need not have a significant impact on accessibility if accompanied by the kinds of financial assistance and information campaigns that are discussed in this chapter and elsewhere in the volume. However, the more important issue may be that the socio-economic and other inequalities in higher educational participation – even in countries where higher education has not only been free but also accompanied by substantial subsidies to the costs of student living – seem so robust. The larger policy goal of advancing participation and equity must be not merely to avoid worsening all of the current correlations of higher educational participation with attributes of class, ethnicity and gender, but actually to reducing them. The continuing challenge to policy makers, scholars and leaders of higher education, then, is to reap the greater efficiency and equity that are theoretically possible through thoughtful measures of cost-sharing and then to use these to the ends of expanding both the quality and the more equitable accessibility of higher education.

## Higher Education Dynamics

---

1. J. Enders and O. Fulton (eds.): *Higher Education in a Globalising World*. 2002  
ISBN Hb 1-4020-0863-5; Pb 1-4020-0864-3
2. A. Amaral, G.A. Jones and B. Karseth (eds.): *Governing Higher Education: National Perspectives on Institutional Governance*. 2002 ISBN 1-4020-1078-8
3. A. Amaral, V.L. Meek and I.M. Larsen (eds.): *The Higher Education Managerial Revolution?* 2003  
ISBN Hb 1-4020-1575-5; Pb 1-4020-1586-0
4. C.W. Barrow, S. Didou-Aupetit and J. Mallea: *Globalisation, Trade Liberalisation, and Higher Education in North America*. 2003 ISBN 1-4020-1791-X
5. S. Schwarz and D.F. Westerheijden (eds.): *Accreditation and Evaluation in the European Higher Education Area*. 2004 ISBN 1-4020-2796-6
6. P. Teixeira, B. Jongbloed, D. Dill and A. Amaral (eds.): *Markets in Higher Education: Rhetoric or Reality?* 2004 ISBN 1-4020-2815-6
7. A. Welch (ed.): *The Professoriate*. Profile of a Profession. 2005 ISBN 1-4020-3382-6
8. Å. Gornitzka, M. Kogan and A. Amaral (eds.): *Reform and Change in Higher Education*. Implementation Policy Analysis. 2005 ISBN 1-4020-3402-4
9. I. Bleiklie and M. Henkel (eds.): *Governing Knowledge*. A Study of Continuity and Change in Higher Education – A Festschrift in Honour of Maurice Kogan. 2005  
ISBN 1-4020-3489-X
10. N. Cloete, P. Maassen, R. Fehnel, T. Moja, T. Gibbon and H. Perold (eds.): *Transformation in Higher Education*. Global Pressures and Local Realities. 2005  
ISBN 1-4020-4005-9
11. M. Kogan, M. Henkel and S. Hanney: *Government and Research*. Thirty Years of Evolution. 2006 ISBN 1-4020-4444-5
12. V. Tomusk (ed.): *Creating the European Area of Higher Education*. Voices from the Periphery. 2006 ISBN 1-4020-4613-8
13. M. Kogan, M. Bauer, I. Bleiklie and M. Henkel (eds.): *Transforming Higher Education*. A Comparative Study. 2006 ISBN 1-4020-4656-1
14. P.N. Teixeira, D.B. Johnstone, M.J. Rosa and Hans Vossensteyn (eds.): *Cost-sharing and Accessibility in Higher Education: A Fairer Deal?* 2006/2008  
ISBN 978-1-4020-4659-9; Pb 978-1-4020-6915-4