

Accelerated Vesting of Employee Stock Options in Anticipation of FAS 123-R

PREETI CHOUDHARY,* SHIVARAM RAJGOPAL, †
AND MOHAN VENKATACHALAM ‡

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ABSTRACT

In December 2004, the Financial Accounting Standards Board (FASB) mandated the use of a fair value–based measurement attribute to value employee stock options (ESOs) via Financial Accounting Standard (FAS) 123-R. In anticipation of FAS 123-R, between March 2004 and November 2005, several firms accelerate the vesting of ESOs to avoid recognizing existing unvested ESO grants at fair value in future financial statements. We find that the likelihood of accelerated vesting is higher if (1) acceleration has a greater effect on future ESO compensation expense, especially related to underwater options, and (2) firms suffer greater agency problems, proxied by fewer blockholders, lower pension fund ownership, and top five officers holding a greater share

*Georgetown University, McDonough School of Business; †University of Washington Business School; ‡Fuqua School of Business, Duke University. We thank an anonymous referee, Raj Aggarwal, Merle Erickson (editor), Jennifer Francis, Jon Glover, Rebecca Hann, Ross Jennings, Chandra Kanodia, Bill Kinney, Bill Mayew, Ed Mayew, Partha Mohanram, Kevin Murphy, Karen Nelson, Doron Nissim, Terry Shevlin, Scott Taub, Ross Watts, Greg Waymire, Joe Weber, and workshop participants at the 2006 FARS Conference, Columbia University, Massachusetts Institute of Technology, University of California–Berkeley, University of Minnesota, University of Southern California, University of Texas at Austin, UNC/DUKE Fall Camp, and the American Accounting Association meetings in 2006 and 2007 for many helpful suggestions on the paper. We are grateful to Katherine Schipper for many helpful discussions. We thank Carl Schmitt of Buck Consultants and Jack Cieselski of the *Analyst's Accounting Observer* for sharing their data with us and Xin Wang for research assistance. We acknowledge financial support from the University of Washington Business School, Fuqua School of Business, and Global Capital Markets Center, Duke University.

of ESOs. We also find a negative stock price reaction around the announcement of the acceleration decision. Furthermore, stock returns are significantly negative before the new vesting dates and positive afterward, suggesting that vesting dates could have been backdated.

1. Introduction

The Financial Accounting Standards Board (FASB) issued Financial Accounting Standard (FAS) 123-R on December 12, 2004, requiring fair-value measurement for employee stock options (ESOs) (FASB [2004a]). Public firms were required to apply the new valuation method to (1) all ESO awards granted after June 15, 2005 and (2) unvested ESO awards granted after 1994. Fair-value measurement imposes financial reporting costs because it entails recording compensation expense relating to both new option grants and existing unvested options. In order to reduce or avoid financial reporting costs associated with FAS 123-R, firms could consider two (not mutually exclusive) alternatives. With regard to compensation expense arising from (1) above, firms could avoid issuing new option grants after the effective date, that is, June 15, 2005; with respect to (2) above, firms could consider vesting all unvested options (i.e., accelerate the vesting) prior to the effective date. We focus on accelerated vesting because it represents a short-term, one-time response to an accounting standard where the timing of the acceleration is indicative of intent to achieve a financial reporting objective.

Our enquiry into firms' accelerated vesting decision is motivated by extant research that indicates managers take "real" actions in response to accounting standards to avoid or achieve a financial reporting outcome. Real managerial actions can transfer wealth either to or away from shareholders. For example, Mittelstaedt, Nichols, and Regier [1995] report that 35% of their sample firms cut health care benefits subsequent to FAS 106, which requires financial statement recognition of future health care costs. Health care benefit reductions represent wealth transfers from employees to shareholders. Carter and Lynch [2003] focus on an FASB proposal requiring firms that reprice stock options after December 15, 1998 to record a compensation expense equal to the difference between the new exercise price and the market price of the stock in each subsequent period the option is unexercised. The timing and concentration of option repricings they identify suggests that managers take advantage of accounting rule changes to transfer wealth from shareholders to employees (and themselves).

Our study complements Carter and Lynch [2003] by examining accelerated option vesting, a real action in response to an accounting standard that benefits the employees at the shareholders' expense, but differs from theirs in three ways. First, in the repricing setting, there is no financial reporting consequence for firms' past actions (i.e., prior option grants) or for firms that do not find it optimal to reprice; rather, firms face financial reporting costs as a consequence of the new accounting rule only for subsequent option repricings. In our setting, firms that do not accelerate the vesting

of options (i.e., do nothing) face a financial reporting cost. Second, unlike the repricing setting where the financial effects are not estimable due to unknown future prices, we are able to quantify the financial reporting costs for both accelerators and nonaccelerators. Consequently, we can assess the extent to which accelerated vesting decisions are influenced by the level of financial reporting costs. Lastly, we identify potential wealth transfers from shareholders to employees through negative stock price effects and through possible backdating of the acceleration date.

We examine two questions. First, we investigate what motivates firms to alter their compensation contracts in response to an accounting standard. We document the characteristics of firms that accelerate the vesting of options to evaluate the cost–benefit tradeoff associated with the acceleration decision. While the timing of the accelerated vesting decision suggests that it is driven by financial reporting benefits, there are other reasons to accelerate option vesting, such as (1) retaining employees and improving employee morale and (2) transferring wealth from shareholders to managers by taking advantage of poor governance and greater agency problems. Second, we investigate whether the acceleration decision represents benign changes in employees' compensation contracts by examining stock market reactions surrounding both the acceleration date as well as the filing date. Acceleration is costly because it decreases the amount of service required of employees before enjoying the benefit from exercising the options, removing the long-term incentive effects of option contracts.¹

Our analysis is based on a sample of 354 firms that announce the accelerated vesting of options between March 2004 and November 2005 and a broad control sample of 665 firms.² We observe a rapid increase in the number of accelerated vesting announcements subsequent to the FASB passing FAS 123-R, suggestive of a motivation to avoid recording a stock option expense. Our results suggest that, for the median (mean) accelerating firm, accelerated vesting increases earnings as a percentage of net income by about 4% (23%). Our regression results indicate that the likelihood that a firm accelerates vesting increases with the extent of underwater options and the level of financial reporting benefits received from acceleration. However, we do not find support for the hypothesis that firms whose stocks underperform relative to their industry are more likely to accelerate vesting in order to retain employees or to boost their morale.

We also find evidence that acceleration is associated with agency motivations. Managerial ownership and greater option holdings by the top five executives are positively associated with accelerated vesting. Consistent with

¹ Following the analysis of Chi and Johnson [2008], we would like to measure these costs in the form of the number of months the vesting period is reduced. However, lack of detailed disclosures regarding the accelerated options prohibits such an analysis.

² As a sensitivity check we also conduct an analysis using a matched control sample of 354 firms matched on size, industry, operating performance, and stock return performance. Results are qualitatively similar.

recent claims (e.g., Jensen, Murphy, and Wruck [2004]), equity incentives induce managers to increase stock prices in the short run through income-increasing financial reporting choices. We also find that firms with better external governance are less likely to accelerate vesting. Consistent with anecdotal reports that (1) corporate consultants such as the Corporate Library (who advise institutions on how to vote on proxy proposals) criticize accelerated vesting of options (White [2005]) and (2) active institutional investors are reluctant to allow firms to reset the terms of employee stock options (e.g., Silverman [1999]), we find that firms with greater blockholder ownership and pension fund ownership (proxies for better governance structures) have a lower likelihood of acceleration.³

Regardless of the motivation to accelerate option vesting, it is unclear *ex ante* whether the decision is value-increasing or value-destroying, on average. Boards of several firms state that avoiding a future accounting charge via accelerated vesting is value-increasing because of the income statement effects:

The Board believes it was in the best interest of the shareholders to accelerate these options, as it will have a positive impact on the earnings of the Company over the previously remaining vested period of approximately 3 years. (Central Valley Community Bancorp [2005]).

However, investors may perceive accelerated vesting as merely paying employees more for a reduced amount of service, that is, a wealth transfer to employees. To investigate the shareholder value implications of acceleration, we examine (1) the stock market response surrounding the acceleration announcement and (2) the patterns of stock prices surrounding the accelerated vesting date to investigate whether the vesting date is opportunistically timed *ex post*. We find that the average market reaction to the acceleration decision is -1% over the five-day period surrounding the announcement. Unreported tests indicate that the negative reaction is systematically worse for firms with higher agency costs, proxied by lower CEO stock ownership and lower blockholder ownership. The magnitude of the negative abnormal return is economically comparable to the average market reaction for news events such as extreme negative earnings announcements, which ranges on average between -1% and -1.5% (Jegadeesh and Livnat [2006], Bernard and Thomas [1990]). The results indicate that acceleration announcements are interpreted unfavorably by the stock market, on average, especially when the market is likely to perceive the wealth transfers to executives to be greater.

More intriguing, there is some evidence that the accelerated vesting date could have been backdated. Similar to the return patterns documented by

³ Boards are not required to have shareholders vote on resetting the terms of options unless their charters specify this. In our sample of accelerators we are not aware of any firms that allow shareholders to vote on acceleration decisions.

Lie [2005], we find systematic negative stock returns of -1.7% 20 days before the acceleration date (not the announcement date) and positive returns of 1.4% 20 days after the acceleration date. We also find that a large majority of acceleration decisions (233 of the 365) report the activity to the Securities and Exchange Commission (SEC) six days or more after the acceleration decision, supportive of backdated vesting dates. Selecting the accelerated vesting date is discretionary; there is no requirement to file a form 4 or other kind of notice when a firm accelerates the vesting of options. Thus, firms can choose an acceleration date *ex post* when the stock price is low. We view backdating as a form of unrecognized wealth transfer from shareholders to employees because backdating the vesting date to coincide with a lower point in the path of the stock price is likely to reduce or even eliminate the financial reporting expense. In turn, this could motivate firms to accelerate even more unvested options.

Our paper makes three contributions to the extant literature. First, we provide archival evidence consistent with Graham, Harvey, and Rajgopal [2005] and Nelson, Elliott, and Tarpley [2002], who find that managers are willing to alter transactions (the terms of compensation contracts in this paper) to achieve a desired financial reporting outcome. We add to a small but growing stream of archival research that offers evidence of such behavior. Imhoff and Thomas [1988] document substitution from capital leases to operating leases and nonlease sources of financing following adoption of FAS 13. Dechow and Sloan [1991] and Bushee [1998] provide evidence that managers reduce research and development (R&D) spending to meet earnings goals. Lys and Vincent [1995] show that AT&T spends between \$50 million and \$500 million to gain pooling-of-interest accounting in its acquisition of NCR. Engel, Erickson, and Maydew [1999] find that firms engage in recapitalizations to make their balance sheets look better. Marquardt and Wiedman [2005] show that the likelihood of firms issuing contingent convertible bonds, which are often excluded from diluted earnings per share (EPS) calculations under FAS 128, is associated with the reduction that occurs in diluted EPS if the bonds are traditionally structured.

Second, we contribute to the literature that examines the real effects of accounting standards, where one effect of transaction structuring is the wealth transfer from shareholders to employees. Unlike prior research (e.g., Carter and Lynch [2003]), we find that agency factors contribute as much as financial reporting reasons to the accelerated vesting decision. We document wealth transfers by the negative stock market reaction around the announcement date. Third, the pattern of stock returns surrounding the new vesting date is consistent with the hypothesis that the new vesting date can be retroactively picked by management, implying that the practice of backdating may extend beyond stock option grants.

The remainder of the paper is organized as follows. Section 2 discusses the background and hypotheses. Section 3 describes the data and empirical results related to factors associated with the likelihood that a firm accelerates

the vesting of options. Section 4 presents evidence related to stock price reactions at the acceleration announcement and around the new vesting date. Section 5 summarizes and concludes.

2. *Background and Hypotheses*

2.1 BACKGROUND

Prior to 1995, the accounting for options issued to employees (ESOs) was governed by Accounting Principles Board Opinion 25 (hereafter, APB 25) (APB [1972]). APB 25 specifies that the cost of fixed-plan stock options is based on the intrinsic value of the option (excess of the market price over the exercise price) on the option grant date. Most firms incur no option compensation expense by issuing at-the-money, fixed-term options. In October 1995, the FASB issued FAS 123, requiring firms to disclose (not recognize) a fair value–based estimate of ESOs (FASB [1995]). In the aftermath of the accounting scandals and the passage of the Sarbanes-Oxley Act, the FASB issued FAS 123-R in December 2004, requiring recognition of the cost of share-based payments using fair-value measurement (as opposed to the intrinsic value under APB 25) on the grant date. The cost of the award is allocated over the vesting period. FAS 123-R is originally scheduled to be effective for public companies after June 15, 2005.⁴ Under FAS 123-R, only stock options awarded to employees that vest (become exercisable) after the effective date must be recognized using a fair-value method. Options already vested (even if unexercised) prior to the effective date are *not* affected as the required services for those options are already rendered. For example, if a calendar year public company grants an option to an employee on December 31, 2003 that vests (i.e., is exercisable) ratably over three years, one-third of the award vests in fiscal 2006, after the effective date of FAS 123-R. In order to avoid recognizing the fair value of the unvested option as a compensation expense in fiscal 2006, the company can accelerate the vesting of the final third of the award to a date on or before December 31, 2005.⁵

⁴ The SEC postponed the implementation date of FAS 123-R on April 14, 2005, stating that SEC registrants have to comply with FAS 123-R beginning with the first interim or annual reporting period of the first fiscal year beginning on or after June 15, 2005, i.e., the first quarter of 2006 for most public companies. While calendar-year companies receive a six-month reprieve, several technology companies (e.g., Cisco, JDS Uniphase, Sun Microsystems) and other companies with fiscal year-ends in June and July did not benefit from this delayed implementation.

⁵ There are a few tax effects of the acceleration as well. A company that accelerates the vesting date of incentive stock options, or ISOs, needs to seek consent from holders of ISOs, as per section 422 of the Internal Revenue Code of 1986 if the acceleration has the effect of changing the status of the option for federal income tax purposes from an incentive stock option to a nonqualified stock option. Should any of the holders of incentive stock options refuse or fail to consent to the acceleration of option vesting, then there is future expense associated with those options as per FAS 123-R. If the company accelerates the vesting of an “in-the-money” option, the firm books a compensation expense per FAS 123 and a deferred tax asset.

2.2 MOTIVATIONS FOR ACCELERATED VESTING

We hypothesize that three factors—(1) accounting, (2) economic, and (3) agency factors—influence the decision to accelerate the vesting period of ESOs prior to FAS 123-R's effective date. We estimate the following logit model (firm subscripts suppressed):

$$\begin{aligned}
 \text{Pr}(\text{Accelerated vesting}) = & \beta_0 + \beta_1 \text{UNDER}\% + \beta_2 \text{IMPACT} + \beta_3 \text{ADOPTERS} \\
 & + \beta_4 \text{EQ_ISSUE} + \beta_5 \text{MEET_BEAT} + \beta_6 \text{LOSS} \\
 & + \beta_7 \text{D/E} + \beta_8 \text{STCLAIM} + \beta_9 \text{D_CAPITAL} \\
 & + \beta_{10} \text{BHAR_INDADJ} + \beta_{11} \text{BONUS} \\
 & + \beta_{12} \text{CEO_OWN} + \beta_{13} \text{TOP5_OPT}\% \\
 & + \beta_{14} \text{BLOCK} + \beta_{15} \text{PP} + \beta_{16} \text{B_SIZE} \\
 & + \beta_{17} \% \text{B_INSIDERS} + \beta_{18} \text{B_MEETINGS} \\
 & + \beta_{19} \text{B_INSIDECHAIR} + \beta_{20} \text{B_STAG} \\
 & + \beta_{21} \text{SIZE} + \beta_{22} \text{M/B} + \varepsilon
 \end{aligned} \tag{1}$$

2.2.1. Accounting Factors.

2.2.1.1. Extent of Underwater Options. While a firm's acceleration decision reduces financial reporting costs by avoiding future option expense, it requires recording a current option expense if the option is in-the-money at the time of acceleration. Shortening the vesting period triggers revaluation; under APB 25 an expense is recognized based on the intrinsic value at the acceleration date. Accelerating the vesting period of at- or out-of-the-money stock options requires no option expense recognition at the acceleration date. Hence, we hypothesize that the probability that a firm accelerates vesting is greater if the firm has more unvested underwater options.

Our empirical proxy for the extent of unvested underwater options is computed from the ExecuComp database, which contains detailed data on option grants to the top five officers. We hand-collect option grant data from the annual proxy statements for firms not included in ExecuComp. We estimate the extent of unvested underwater options as follows. First, we divide the total number of options granted to the top five executives by the proportion of options granted to these executives relative to that granted to all employees. This gives us an estimate of the total number of options granted each year. Following Hall and Knox [2004], we compute unvested options that are underwater as of December 2004. Assuming that all options are granted at the end of each fiscal year and vest over four years, we calculate the number of unvested options for each of the four previous years. For example, a ratable portion of all the options granted in 2001 through 2004 is considered unvested for a firm with a fiscal year ending December 31, 2004. To determine whether the unvested options are underwater, we compare the strike price of the option to the stock price

of the firm as of December 31, 2004 (for acceleration firms we use the stock price at the end of the day before acceleration). *UNDER%* is the total number of unvested underwater options scaled by shares outstanding. We expect the probability of accelerating the vesting period to increase with *UNDER%*.⁶

2.2.1.2. Future Expense Saved. Over 75% of the accelerating firms cite the magnitude of the future expense avoided as one of the key benefits of accelerating the vesting of options. Hence, we predict that firms accelerate when these future expenses are larger. There are at least three reasons why managers might undertake actions to affect income that have no cash flow effects. First, Graham, Harvey, and Rajgopal [2005] find that several CFOs they interview believe that stock markets are efficient, *on average*, but they would rather not take the chance that the market inefficiently prices reported income of their firms. Second, recent findings in Sloan [1996] and Xie [2001] question market efficiency with respect to the pricing of earnings components. Hirshleifer and Teoh [2003] model an equilibrium in which partially attentive investors focus more on recognized rather than disclosed charges to income. The existence of such investors creates incentives for firms to avoid recognizing costs in the financial statements. Finally, even if the stock market is efficient at unraveling the effects of transaction structuring on reported income, managers have incentives to manage reported income to signal their competence to the managerial labor market, as suggested by Graham, Harvey, and Rajgopal [2005], or to manage the perceptions of other stakeholders such as suppliers, employees, or creditors (see Bowen, Ducharme, and Shores [1995]).

In our sample, 228 of the 354 accelerating firms report the amount of future stock option cost saved as a result of the acceleration. For these firms, we use the reported after-tax cost saved as our empirical measure of future expense saved; for firms that report the before-tax impact, we multiply the before-tax impact by 0.65 (assuming a 35% tax rate). For the 126 accelerators that do not disclose the amount of stock option cost saved and for the control firms, we estimate the financial statement effect as the tax-adjusted Black–Scholes value (Black and Scholes [1973]) of the unvested underwater options using the following procedure.⁷ First, we sum the total number of options *unvested* as at the end of fiscal 2004 for each of the top

⁶ Because ExecuComp contains data from company proxy statements (which follow fiscal years), the entries show the number of options at the end of the company's fiscal year, not calendar year.

⁷ One might argue that the acceleration phenomenon is a more significant issue for underwater options. Acceleration of in-the-money options imposes an immediate financial reporting cost in that it requires recording an option expense equal to the intrinsic value at the time of acceleration. Therefore, as a sensitivity check, we include in-the-money options when estimating the financial statement impact for all control and treatment firms that do not report the financial statement impact. Using this alternative measure of financial statement impact does not alter the tenor of our conclusions.

five executives.⁸ We scale this by the percentage of options granted to the top five executives in each year to estimate the unvested options held by all employees. Next, we determine the Black–Scholes value of these unvested options by using the input assumptions reported in the 10-K filings (obtained from Equilar). If the firm is missing from the Equilar database, we assume the following input parameters: a seven-year holding term, monthly stock return volatility estimated from the Center for Research in Security Prices (CRSP) for the past seven years, a zero dividend rate, and a risk-free rate equal to the 10-year Treasury bill rate as of December of the corresponding year. Since we are interested in the unamortized portion of the total cost, we multiply the estimated Black–Scholes value of unvested options by one-fourth for options granted in 2001, by one-half for options granted in 2002, by three-fourths for options granted in 2003, and by one for options granted in 2004. To compute the after-tax costs we multiply the sum of these unamortized expenses by 0.65. The resultant measure is scaled by the absolute value of net income and constitutes the expected future saving in expense attributable to underwater and unvested options (*IMPACT*).⁹ We set *IMPACT* to zero for 1% of the treatment sample and 19% of control sample firms that voluntarily adopt the fair-value provisions of FAS 123.

Our estimate of the financial statement effect (cost savings) rests on several assumptions: the grant date is the last day of the granting fiscal year, the holding period of the option (i.e., time until exercise) for all employees is the same (i.e., seven years or as disclosed in the 10-K filing), and a four-year vesting period. Given these assumptions, our measure of *IMPACT* likely contains measurement error. To validate the measure, we compute an as-if *IMPACT* for firms that disclose their expected savings in their announcements. We find that the Spearman rank (Pearson) correlation is 0.72 (0.68) (both $p < 0.01$), giving us assurance about the reliability of our measure, despite the assumptions made above.¹⁰

⁸ We assume that firms accelerate all unvested options. This assumption relies on the premise that firms want to minimize the extent of stock option expense reported under FAS 123-R. Under FAS 123-R, firms can avoid recognizing any stock option expense for accelerated out-of-the-money options. Hence, we are not sure why a firm would choose to accelerate only a part of the underwater, unvested options. Unfortunately, firms' disclosures are too patchy to reveal whether some firms accelerate the vesting of only a portion of their out-of-the-money options.

⁹ As a sensitivity check, we use the estimated *IMPACT* measure for all firms and find that using this alternative variable does not affect the tenor of our conclusions. Although income seems like a natural scalar in our context, scaling by the absolute value of net income could create a potential small denominator problem. In untabulated analyses, we also consider other scalars such as total assets and sales with no qualitative change in our findings.

¹⁰ We also conduct a calibration analysis where we regress actual *IMPACT* on an intercept and as-if *IMPACT* and then apply the parameters from this regression to compute the predicted value for actual *IMPACT* for firms where we only have the as-if *IMPACT* number. The estimated intercept (t -statistic) is 0.30 (7.65) and the coefficient on as-if *IMPACT* is 1.80 (8.95). Substituting the calibrated number in our empirical analyses does not alter any of our reported inferences.

2.2.1.3. *Voluntary Adopters of Fair-Value Provisions of FAS 123.* Several firms voluntarily adopt the fair-value provisions of FAS 123 beginning in 2002 (see Aboody, Barth, and Kasznik [2004]). These firms do not incur savings from accelerated vesting, and may incur a short-term increase in current cost under FAS 123.¹¹ We hypothesize that voluntary adopters are less likely to accelerate vesting of options. We code *ADOPTERS* as one if the firm voluntarily adopts the fair-value provisions of FAS 123 (McConnell et al. [2004]) and zero otherwise.¹²

2.2.1.4. *Reported Income and Capital Markets.* In this section, we argue that firms with a preference for reporting higher accounting income on the margin are more likely to engage in accelerated vesting of options. We employ several empirical proxies to capture the importance of accounting income. As with prior research, we predict firms that engage in seasoned equity offerings (*EQ_ISSUE*), consistently meet or beat analyst earnings targets (*MEET_BEAT*), incur losses (*LOSS*), and have significant leverage (*D/E*) are more likely to be sensitive to reported earnings. We measure these variables as follows: *EQ_ISSUE* is a dummy variable that is set to one if the firm issued equity in the last three fiscal years and zero otherwise; *MEET_BEAT* is the proportion of times a firm meets or exceeds the seasonal quarterly earnings benchmark over the last three years (because analyst forecasts are unavailable for a significant proportion (27%) of our sample, we use prior year earnings instead of analyst forecasts to measure *MEET_BEAT*); *LOSS* is the percentage of times the firm reports negative net income adjusted for the stock option expense amounts (disclosed in the footnotes) during the four fiscal years prior to the acceleration decision; *D/E* is the debt–equity ratio measured as the book value of debt scaled by the market value of equity.

2.2.1.5. *Reported Income and Stakeholders.* Bowen, Ducharme, and Shores [1995] document that firms with more implicit claims with stakeholders such as employees, suppliers, or customers choose relatively aggressive accounting methods to influence stakeholders' assessments of the firm's reputation. Graham, Harvey, and Rajgopal [2005] present survey evidence that CFOs view stakeholder concerns as an important determinant of financial reporting practices. Even if the stock market is fully efficient in processing earnings information, managers may accelerate the vesting of options and reduce future reported costs to extract better terms of trade with

¹¹ According to FAS 123, once a firm elects to use the fair-value method of valuing stock options, it may not change the valuation method back to the intrinsic-value method at any point in the future. Therefore, a voluntary adopter that accelerates vesting is forced to expense an amount equal to the unrecognized portion of the fair value of the accelerated options.

¹² It is likely that subsequent to the Bear Stearns Report (McConnell et al. [2004]), some of the accelerating and the control firms announced decisions to voluntarily expense stock options, leading to misclassification of the *ADOPTERS* variable. However, such misclassification only biases against finding results in support of our hypothesis.

their stakeholders. Following Bowen, Ducharme, and Shores [1995] and Matsumoto [2002], we conduct a factor analysis to identify a single factor (*STCLAIM*) for the following three variables to capture stakeholder claims: (1) D_{DUR} if a firm belongs to a durable goods industry, (2) $R\&D/Sales$, and (3) $LABOR$ intensity ($1 - (\text{property, plant, and equipment}/\text{adjusted total assets})$). *STCLAIM* represents the factor score capturing the combined elements of these three variables. The factor retains over 75% of the variation in the input variables. Higher factor scores correspond to greater stakeholder claims; hence, we expect a positive association between the probability of accelerated vesting and *STCLAIM*.

2.2.2. Economic Factors.

2.2.2.1. *Cash Flow Constraints.* Prior research (e.g., Core and Guay [2001]) finds that firms with greater financial constraints tend to use stock options. Accelerated vesting of options could hasten the inflow of cash through the option exercise if the option is in-the-money and the employee decides to exercise the option early. Even if the options are out-of-the-money, the incentive effects of accelerated vesting may motivate employees to work harder to bring the options into the money, which in turn motivates early exercise. We hypothesize that firms with higher cash flow constraints have greater incentives to accelerate the vesting of options. Although it is cheaper to raise capital from diversified financial institutions than from employees, the cash flow constraints hypothesis implicitly assumes that it is sensible for the employees to finance the company using stock option exercises. Recent research suggests that issuing broad-based options to employees is sensible when firms exploit boundedly rational employees who are likely to be excessively optimistic about the company stock and when employees are likely to have a strict preference for options over stock (Bergman and Jenter [2006], Hodge, Rajgopal, and Shevlin [2008]). We use free cash flow (*FCF*), which is the difference between cash flow from operations for year $t - 1$ and the past-three-year average ($t - 1, t - 2, t - 3$) of the firm's capital expenditures, scaled by current assets at $t - 1$. We set a dummy variable (*D_CAPITAL*) equal to one if the free cash flow measure (*FCF*) is less than -0.50 , and zero otherwise. This variable also captures the firm's ex ante demand for external capital, which in turn, provides managerial incentives to engage in actions that influence reported income. We expect a positive association between the acceleration decision and *D_CAPITAL*.

2.2.2.2. *Improving Employee Morale and Retention.* Several firms explicitly state that they accelerate the vesting of options to improve employee morale and retain employees. Hodge, Rajgopal, and Shevlin [2008] present survey evidence that employees attach significant value to earlier vesting of stock options. Firms view the acceleration of underwater options as a symbolic action that communicates concern to employees about their options being out-of-the-money. Moreover, acceleration of underwater options can be viewed as a signal that managers expect the stock price to increase. Hence,

we argue that firms may choose to boost employee morale and increase the chance of retaining employees, on the margin, by accelerated vesting.¹³ While it is debatable whether the accelerated vesting of underwater options promotes employee retention and incentive alignment, we appeal to recent work by Jin and Meulbroek [2005] that indicates underwater options have sufficient incentive alignment properties.¹⁴ In addition, options are more valuable to employees when the vesting period is shorter and employees have stronger incentives to work harder to boost the stock price to bring their options into the money.

Following Carter and Lynch [2001] and Oyer [2004], we argue that firms that underperform relative to their industry find it harder to retain employees as such employees have attractive outside employment opportunities within the industry. Under the retention story, we expect the likelihood of acceleration to be negatively associated with *BHAR_INDADJ*, which represents the firm's prior year industry-adjusted buy-and-hold return comprised of firms in the three-digit North American Industry Classification System (NAICS) code, excluding the treatment firm. *BHAR_INDADJ* for firms that accelerate vesting in 2004 (2005) is computed over the year ending June 2004 (December 2004). For control firms, we compute *BHAR_INDADJ* over the calendar year 2004.

2.2.3. Agency Factors.

2.2.3.1. Managers' Private Incentives. We consider several factors related to the private incentives of senior managers to influence financial reporting choices. Murphy [2000] documents widespread use of earnings-based annual bonus plans in compensation contracts; prior research (e.g., Matsunaga and Park [2001]) shows that earnings-based bonus plans influence financial reporting choices. If management bonuses are based on reported earnings unadjusted for accounting changes, we predict firms that compensate managers with bonus plans are more likely to accelerate the vesting of options.¹⁵ We use the ratio of CEO bonus to total cash compensation (*BONUS*) as our proxy for earnings-sensitive bonus plans.¹⁶

¹³ In fact, 51 of the 354 accelerating firms in our sample that accelerate the vesting of underwater options bar some employees from selling the stock until the original exercise date.

¹⁴ Moreover, several of our sample firms (65 firms) accelerate the vesting of some in-the-money options.

¹⁵ A positive relation between the acceleration decision and *BONUS* could arise for a more innocuous reason. Because the acceleration decision is more likely to occur when past performance is weak and options are more likely to be underwater, *BONUS* could simply be an additional proxy for the likelihood that the options are underwater.

¹⁶ Ideally, we would like to proxy for bonus incentives via the actual bonus formula in proxy statements or by estimating a regression of bonus compensation on accounting performance for each firm and using the parameter estimates to determine how much a typical manager actually makes in terms of additional bonus if accelerated vesting occurs. However, firms do not consistently disclose bonus formulas in their proxy statements, and in addition, requiring time-series data on bonus compensation leads to significant data attrition.

We also include two additional proxies to capture managers' private incentives for income-increasing financial reporting decisions—CEO ownership, calculated as the equity shares held by the CEO (*CEO_OWN*), and the number of options granted to top executives (*TOP5_OPT%*); both are scaled by shares outstanding. Agency theory suggests that greater CEO ownership improves alignment between managerial and shareholder interests, mitigating agency problems. Thus, firms with greater managerial ownership are less likely to indulge in earnings management (Warfield, Wild, and Wild [1995]). Based on this argument, we predict that the propensity to accelerate decreases with *CEO_OWN*. However, recent evidence (Bartov and Mohanram [2004], Bergstresser and Phillipon [2005], Burns and Kedia [2005], Cheng and Warfield [2005]) suggests that managers with significant equity incentives (i.e., managers with significant managerial ownership and stock options) are more likely to manage earnings because managers have considerable wealth invested in the firm's stock, increasing the propensity to sell shares in the near term. Consequently, we entertain the possibility that the relation between the acceleration decision and *CEO_OWN* is positive.

TOP5_OPT% is a proxy for managers' personal incentives. Dechow, Hutton, and Sloan [1996] find that firms with more options granted to the top five executives are more likely to lobby the FASB against fair-value measurement and recognition. They argue that executive stock option grants represent excess compensation. Managers with significant option portfolios attempt to reduce the political costs associated with reporting a high stock option compensation expense. Since accelerating the vesting of options is a mechanism to avoid expense recognition, we expect a positive association between the acceleration decision and *TOP5_OPT%*.¹⁷

2.2.3.2. External Governance. We expect outside monitoring to counteract the private incentives of senior managers to accelerate the vesting of options and avoid expense recognition. We use two proxies to capture external monitoring: (1) equity ownership by the largest blockholder (*BLOCK*) compiled by Dlugosz et al. [2006] and (2) equity ownership by public pension funds (*PP*) identified by Cremers and Nair [2005].¹⁸ Pension funds and blockholders usually oppose resetting the terms of ESOs (Silverman [1999],

¹⁷ A direct analysis of these agency issues would separate accelerators that exclude senior managers, including the CEO. Unfortunately, disclosures on restricting accelerations to rank and file workers are patchy and unreliable.

¹⁸ A natural candidate for internal monitoring is the compensation committee. However, we do not find significant cross-sectional variation either in the presence of a compensation committee or in the composition of the compensation committee, both within our treatment and matched samples and between these two samples. This is not surprising considering that (1) section 303.01(B)(2)(a) and (3) and 303A.02 of the New York Stock Exchange's (NYSE) listing standards require NYSE-listed firms to establish compensation committees composed entirely of independent directors and (2) for most NASDAQ companies, the compensation payable to the company's CEO and other executive officers must be approved either by a majority of the independent directors on the board or a compensation committee comprised solely of independent directors. We include the presence of a compensation committee, the

Pollock, Fisher, and Wade [2001]). Several consultants, such as the Corporate Library, who counsel institutional investors on investment decisions and proxy voting, have been critical of accelerated vesting. For example, Paul Hodgson of the Corporate Library states: “It’s lying. It may be legitimate lying, but it is nevertheless lying to shareholders about the cost of options” (White [2005]). Nell Minow, founder of the Corporate Library, calls accelerated vesting “appalling.” She adds “institutional investors are already saying that the issue could encourage them to withhold votes from corporate directors. It shows bad faith and bad judgment on the part of [corporate] boards” (Wolverton [2005, p. 1]). We expect the probability of accelerating the vesting of options to decrease with *BLOCK* and *PP*.

2.2.3.3. Internal Governance: Board of Directors. Managers cannot unilaterally accelerate option vesting because the compensation committee, and ultimately the board of directors, must authorize such acceleration. Hence, we expect the probability of acceleration to decrease with the presence of a strong board. We consider five proxies related to board structure:

- 1) The number of directors on the board (*B_SIZE*): Jensen [1993] and Lipton and Lorsch [1992] argue that large boards can be less effective than small boards. The intuition is that director free-riding increases with board size and that larger boards may be more symbolic and less involved in the management process. Yermack [1996] tests this view and finds empirical support for it.
- 2) The proportion of insiders on the board (*%B_INSIDERS*): Several studies show that boards composed mainly of outside (or independent) directors are more effective than boards made up of insiders (e.g., Brickley and James [1987], Weisbach [1988], Rosenstein and Wyatt [1990]).
- 3) The number of board meetings (*B_MEETINGS*): A greater frequency of board meetings may indicate active governance on the part of the board. Alternatively, it may signal the difficulty involved in monitoring the firm’s operations, and hence, a greater number of board meetings may suggest a mere reactionary response on the part of the board to poor performance or bad outcomes.
- 4) The presence of an insider (i.e., an employee, an interim CEO, or an individual who owns more than 50% of voting shares) as the chairman of the board (*B_INSIDECHAIR*): Boards are known to be ineffectual monitors especially when the CEO or an insider is also chairman of the board (Jensen [1993]).
- 5) The presence of a staggered board (*B_STAG*): Staggered board refers to a board where only some members are elected/re-elected each year. Staggered boards are a powerful defense against removal in either a

number of compensation committee members, and the proportion of inside directors on the compensation committees as additional variables but these variables do not load significantly in the multivariate regressions.

proxy fight or proxy contests. There is evidence that staggered boards are a key determinant for whether a target receiving a hostile bid remains independent (Bebchuk, Coates, and Subramanian [2002]). There is also evidence that staggered boards are negatively correlated with Tobin's Q (Bebchuk and Cohen [2004]) and are associated with negative future returns (Bebchuk, Cohen, and Ferrell [2008]).

We obtain board data for fiscal year 2004 for several of our sample firms from the Equilar database. We hand-collect all the variables from proxy statements for 82 accelerating and control firms that are not available in the Equilar board database. Given that a higher value for all the above variables (with the exception of $B_MEETINGS$) captures poor internal governance, we predict each of the variables to be positively (negatively) related to the likelihood of accelerated vesting.

2.2.3.4. Other Variables. Smith and Watts [1992] argue that a firm's size and investment opportunity set are important determinants of compensation contracts. Visible actions such as accelerated vesting are likely to invite public scrutiny. Firm size is commonly used as a proxy to capture political vulnerability (see Watts and Zimmerman [1990]); we measure $SIZE$ as the logarithm of market value of equity. Finally, we include a proxy for the investment opportunity set (M/B), calculated as the ratio of market value of equity to book value of equity.

3. Data and Results

3.1 THE SAMPLE

We identify firms that accelerate the vesting period of options via a LexisNexis search beginning March 2004 using the following key words "accelerat! w/10 vest!." We began our search in March 2004 because the FASB issued an exposure draft for share-based payment on April 13, 2004. This exposure draft states that "the intrinsic value method would be repealed (except in limited circumstances) and replaced with a requirement that generally all equity awards be accounted for at the fair value." According to our data search, the first acceleration decision in response to the exposure draft occurred in July 2004. Note that we eliminate routine accelerations that occur as a result of mergers and acquisitions, change of control in the firm, separation of employees, or performance vesting. We supplement our search using lists provided by three stock market analysts (Buck Consultants [2005]McConnell et al. [2005], Ciesielski [2005]). The time-series distribution of acceleration announcements is provided in figure 1. Only four acceleration announcements occur before the FASB decision on October 6, 2004 to consider the acceleration of the vesting period prior to the adoption of the standard as "nonsubstantive" (FASB [2004b]). Had the FASB not voted four to three against this proposal, unvested options that were accelerated would continue to be recognized at fair value over the original

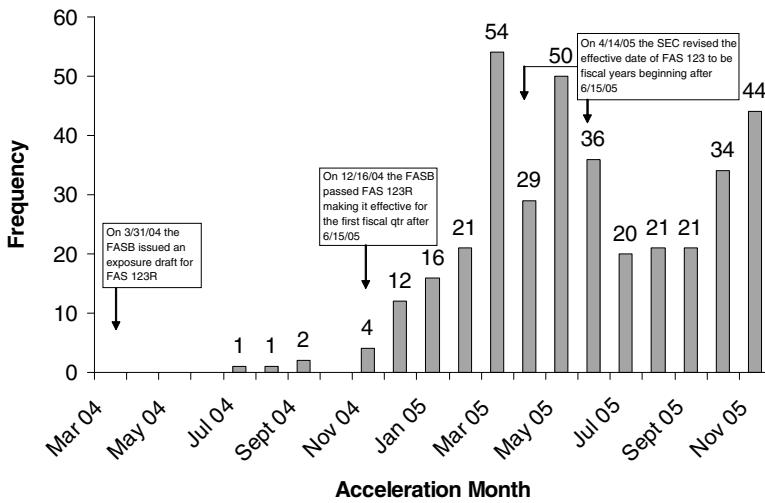


FIG. 1.—Time-series trends in accelerated vesting announcements. This figure shows the number of firms that announce accelerated vesting of employee stock options during the sample period (March 1, 2004 to November 18, 2005). We exclude firms that accelerate the vesting for a contractual reason, such as a change in control.

vesting period, eliminating the financial reporting benefit of acceleration. Firms are subject to FAS 123-R as early as June 2005 or as late as May 2006, depending on their fiscal year-end dates. We terminate our search as of November 18, 2005.

The control firms consist of 665 firms that (1) do not accelerate vesting of options as of November 18, 2005 and (2) have all data available to perform our analysis from ExecuComp as of December 2004. ExecuComp provides compensation data reported in proxy statements for the top five officers of firms in the Standard and Poor's (S&P) 500 large-capitalization, S&P 400 mid-capitalization, and S&P 600 small-capitalization indices. A complete description of data computations and sources is provided in table 1. Our final usable sample that passes the required data filters consists of 354 accelerating firms and 665 control firms (see table 2, panel A).

Table 2, panel B reports the industry classification (NAICS codes) for the accelerating firms. The table indicates that technology firms (defined per Francis and Schipper [1999]) constitute 39.8% of the accelerating firms compared to 16.2% for the control firms.¹⁹ Manufacturing, finance, and insurance firms are underrepresented in the accelerator sample relative to the control group.

¹⁹ Francis and Schipper [1999] define firms in 14 three-digit SIC codes (283, 357, 360–368, 481, 737, and 873) as technology-intensive industries. We use a similar industry classification except that we use NAICS codes instead of SIC codes and treat firms in the corresponding NAICS codes (32, 33, 51, and 54) as technology intensive.

TABLE 1
Variable Definitions and Data Sources

Variable	Measurement	Data Source	Notes
<i>UNDER%</i>	Total number of unvested options that are out-of-the-money scaled by shares outstanding	ExecuComp where available, otherwise hand collected	Out-of-the-money determined by comparing exercise price to December 31, 2004 price for control firms and to the price the day before acceleration in the case of accelerating firms. Options that are granted in years 2001 through 2004 are unvested in the respective proportions assuming a four-year vesting period.
<i>BHAR.INDADJ</i>	One-year industry-adjusted buy-and-hold return (firm return – corresponding industry return)	CRSP and www.yahoo.com	For firms that accelerate in 2004 (2005), returns are computed over the year ending June 2004 (December 2004). For control firms, returns are computed over the calendar year 2004. Industry returns are computed based on three-digit NAICS code matching after excluding the firm for which industry return is computed.
<i>IMPACT</i>	After-tax income effect of accelerating out-of-the-money and in-the-money options scaled by the absolute value of net income	ExecuComp, press releases, 10-K, 10-Q, 8-K, CRSP, Equilar data	Some accelerating firms disclose the income statement effect. For firms that do not disclose and for the control firms, we compute the after-tax income effect by determining the Black–Scholes value (see Whaley [2006]) of the unvested underwater options. Assume options issued in past four years are unvested and issued at the money. Input assumptions to Black–Scholes are taken from a database purchased by Equilar; collected from annual 10-K filings. When data are missing, we calculate input assumptions using a seven-year assumed holding term, seven-year T-bond rate, dividend rate = 0, and volatility computed from a minimum of 30 months of price data from CRSP. We sum 1/4 of 2001, 1/2 of 2002, 3/4 of 2003, and all of 2004 options to determine outstanding expense. We find a correlation of 0.72 for firms that disclose impact and our calculated impact.
<i>ADOPTER</i>	Dummy variable = 1 if firm voluntarily expenses options, 0 otherwise	Bear Stearns report, April 28, 2004	Value = 1 if firm voluntarily adopts FAS 123-R (is currently or intends to start expensing options as of May 2004) as of 2004.

(Continued)

TABLE 1—Continued

Variable	Measurement	Data Source	Notes
<i>EQ_ISSUE</i>	Dummy variable = 1 if firm issues equity in the past three years, 0 otherwise	Compustat	Firm is assumed to have issued equity if data #108 > 0.
<i>MEET_BEAT</i>	% times firm meets or exceeds prior year same quarter net income in past 12 quarters	Compustat	
<i>LOSS</i>	Proportion of times in last four years the firm has a loss after deducting the option expense amount disclosed in the 10-K	Compustat	Firm has a loss if data #18 – data #399 < 0; LOSS = (number of times loss = 1)/4
<i>D/E</i>	Total debt/market value of equity	Compustat	Total debt = (data #34 + data #9); market value of equity = data #25 * data #199
<i>STCLAIM</i>	A single factor determined from three variables: (1) dummy indicator for durable goods industry, (2) R&D/Sales, (3) labor intensity (1 – PP&E/adjusted total assets)	Compustat	Durable good industry (SIC codes 150–179, 245, 283, 301, 250–259, 324–399), R&D (data #46), sales (data #12), PP&E (data #7), adjusted total assets (data #6 + data #196 + data #240)
<i>D_CAPITAL</i>	If FCF < –0.5 then <i>D_CAPITAL</i> = 1, 0 otherwise	Compustat	<i>FCF</i> is the difference between cash flow from operations (data #308) for year $t - 1$ and the past-three-year average ($t - 1, t - 2, t - 3$) of the firm's capital expenditure (data #128) scaled by current assets (data #4) at $t - 1$
<i>BONUS</i>	Bonus/total cash compensation	ExecuComp where available, otherwise hand-collected	<i>BONUS/TCC</i>
<i>CEO_OWEN</i>	Shares owned by CEO scaled by shares outstanding	ExecuComp where available, otherwise hand-collected	<i>SHROWN/SHROUT</i>
<i>TOP5_OPT%</i>	Total stock options granted to top five executives scaled by shares outstanding	ExecuComp where available, otherwise hand-collected	Σ (<i>SOPTGRNT</i> to top five executives in 2001 through 2004)/ <i>SHRSOUT</i>

(Continued)

TABLE 1—Continued

Variable	Measurement	Data Source	Notes
<i>BLOCK</i>	Equity ownership by the largest blockholder	Dlugosz et al. [2006]	
<i>PP</i>	Equity ownership by public pension funds	Cremers and Nair [2005]	
<i>%B_INSIDERS</i>	Percentage of non-independent directors on the board	Equilar where available, otherwise hand-collected from proxy statements	A director is not considered independent if the individual is an employee, is an interim CEO, owns more than 50% of voting shares, is a part-time employee, is employed by the company in the last five years, is a founder, provides any consulting services to the company, has an immediate family member who is an employee, or is not deemed independent by the company
<i>B_SIZE</i>	Number of directors on the board	Equilar where available, otherwise hand-collected	
<i>B_MEETINGS</i>	Number of times during the fiscal year the board met	Equilar where available, otherwise hand-collected	
<i>B_INSIDECHAIR</i>	Indicator for whether the chairman of the board was an insider	Equilar where available, otherwise hand-collected	A director is considered an insider if the individual is an employee, interim CEO, owns more than 50% of voting shares
<i>B_STAG</i>	Indicator variable that is one when only a portion of the board members are elected each year	Equilar where available, otherwise hand-collected	
<i>SIZE</i>	Logarithm (market value of equity) for the previous fiscal year	Compustat	$MVE = \text{data \#25} * \text{data \#199}$
<i>M/B</i>	Market value of equity/book value of equity	Compustat	$MVE = \text{data \#25} * \text{data \#199}$ Book value of equity = data #216
<i>CAR</i>	Cumulative abnormal return, risk adjusted	www.yahoo.com	Returns are cumulated for five days surrounding the acceleration announcement date (-2, -1, 0, 1, 2). For risk adjustment, traditional market betas are computed over a 250-day period from -20 to -270 days prior to the announcement day.

TABLE 2
Sample Selection and Industry Classification

Panel A: Sample selection		Accelerating Firms		Control Firms	
Hand-collected accelerated sample and control sample based on ExecuComp as of December 31, 2004		427		690	
<i>Less:</i> firms that do not have adequate data on CRSP' tapes' volatility estimates or returns data (firms with less than 30 months of pricing data in CRSP) and firms missing necessary financial and board data		(63)		(23)	
<i>Less</i> firms without adequate data for the returns analysis		(10)		(2)	
Total sample size		354		665	
Panel B: Industry classification		Accelerating firms		Control firms	
Industry	NAICS code	<i>N</i>	%	<i>N</i>	%
Agriculture, forestry, and fishing	11	0	0.0%	1	0.1%
Mining	21	3	0.8%	28	4.2%
Utilities	22	1	0.3%	40	6.0%
Construction	23	2	0.5%	13	2.0%
Manufacturing	31–33	93	26.3%	245	36.8%
Wholesale	42	14	4.0%	18	2.7%
Retail trade	44, 45	13	3.7%	18	2.7%
Transportation and warehousing	48, 49	6	1.7%	16	2.4%
Information	51	13	3.7%	11	1.7%
Finance and insurance	52	35	9.9%	107	16.1%
Real estate and rental leasing	53	1	0.3%	6	0.9%
Professional, scientific, and technical services	54	6	1.7%	6	0.9%
Administrative, support, waste management, and remediation	56	8	2.3%	14	2.1%
Education	61	3	0.8%	3	0.5%
Health care and social assistance	62	8	2.3%	7	1.1%
Arts, entertainment, and recreation	71	2	0.5%	1	0.2%
Accommodation and food services	72	4	1.1%	14	2.1%
Other services	81	1	0.3%	5	0.7%
Technology	AC ^a	141	39.8%	108	16.2%
Unclassified	99	0	0.0%	4	0.6%
Total		354	100.0%	665	100.0%

^aAC: technology industry coded by the authors based on Francis and Schipper [1999].

Table 3, panel A presents descriptive statistics and provides tests of differences in means and medians between the accelerated vesting and the control samples. Consistent with the predictions, we find that accelerated vesting firms have higher underwater options (*UNDER%*) and financial statement *IMPACT* than their control counterparts. In panel B of table 3 we report Spearman correlations between various factors that affect firms'

TABLE 3
Descriptive Statistics and Correlation Matrix

	Accelerating firms (N = 354)			Control firms (N = 665)		
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.
<i>MVE</i> (million)	1,689.050	411.740	4,927.820	12,883.964***	3,011.870***	31,597.872
Total assets (million)	1,869.263	415.635	6,764.130	24,246.729***	3,256.540***	98,458.638
Net income (million)	29.798	10.332	224.995	671.879**	146.086***	1,704.049
<i>UNDER%</i>	0.090	0.057	0.103	0.027***	0.005***	0.066
<i>BHAR-INDADJ</i>	-0.159	-0.202	0.392	-0.100**	-0.134***	0.371
<i>IMPACT</i>	0.231	0.042	0.572	0.000***	0.000***	0.003
<i>ADOPTER</i>	0.011	0.000	0.106	0.190***	0.000***	0.392
<i>EQ-ISSUE</i>	0.559	1.000	0.497	0.335***	0.000***	0.473
<i>MEET-LYE</i>	0.611	0.583	0.202	0.691***	0.667***	0.203
<i>LOSS</i>	0.410	0.250	0.393	0.141***	0.000***	0.264
<i>D/E</i>	0.310	0.087	0.632	0.490***	0.205***	1.114
<i>STCLAIM</i>	0.352	0.272	1.249	-0.187***	-0.187***	0.777
<i>D-CAPITAL</i>	0.127	0.000	0.334	0.194***	0.000***	0.396
<i>BONUS</i>	0.275	0.262	0.246	0.494***	0.550***	0.240
<i>CEO-OWN</i>	0.056	0.017	0.105	0.016***	0.003***	0.044
<i>TOP5-OPT%</i>	0.039	0.029	0.037	0.020***	0.014***	0.026
<i>BLOCK</i>	0.020	0.000	0.044	0.058***	0.064***	0.066
<i>PP</i>	0.011	0.000	0.016	0.025***	0.029***	0.014
<i>%B-INSIDERS</i>	0.318	0.317	0.130	0.290***	0.272***	0.149
<i>B-SIZE</i>	7.956	7.000	2.237	9.943***	10.000***	2.494
<i>B-MEETINGS</i>	7.706	7.000	3.867	7.618	7.000	3.455
<i>B-INSIDECHAIR</i>	0.712	1.000	0.454	0.818***	1.000***	0.386
<i>B-STAG</i>	0.562	1.000	0.497	0.615	1.000*	0.487
<i>SIZE</i>	6.125	6.061	1.583	7.969***	7.829***	1.646
<i>M/B</i>	3.569	2.481	3.677	3.526	2.327	3.851

(Continued)

TABLE 3—Continued

Panel B: Spearman correlation matrix		ACCELERATE	UNDER%	IMPACT	ADOPTER	EQ_ISSUE	MEET_BEAT	LOSS	D/E	STCLAIM	D_CAPITAL
UNDER%		0.52									
IMPACT		0.74									
ADOPTER		-0.25	0.50								
EQ_ISSUE		0.22	0.25	0.37							
MEET_BEAT		-0.18	-0.24	-0.21	-0.12						
LOSS		0.37	0.45	0.47	0.03	-0.03					
D/E		-0.21	0.22	-0.26	0.22	0.21	-0.26	-0.15			
STCLAIM		0.23	0.27	0.32	-0.13	0.18	-0.01	0.28	-0.32		
D_CAPITAL		-0.08	-0.17	-0.16	0.26	-0.20	0.10	-0.17	0.33	0.04	0.10
BHARINDADJ		-0.11	-0.21	-0.17	0.05	-0.08	0.14	-0.07	0.07	-0.05	0.04
BONUS		-0.40	-0.37	-0.36	0.21	-0.08	0.31	-0.26	0.07	-0.04	0.04
CEO_OWNS		0.38	0.17	0.23	-0.15	-0.03	0.02	0.05	-0.08	0.02	-0.01
TOP5_OPT%		0.39	0.55	0.39	-0.27	0.21	-0.10	0.37	-0.19	0.19	-0.16
BLOCK		-0.34	-0.21	-0.29	0.07	-0.14	0.06	-0.14	0.08	-0.12	-0.06
PP		-0.40	-0.23	-0.28	0.14	-0.14	0.12	-0.21	0.12	-0.04	-0.02
SIZE		-0.48	-0.39	-0.35	0.31	-0.10	0.25	-0.35	0.12	-0.09	0.12
M/B		-0.02	0.00	0.09	-0.07	0.23	0.28	-0.07	-0.35	0.21	-0.13
%B_INSIDERS		0.11	0.01	0.10	-0.08	0.03	0.04	0.02	-0.12	-0.05	0.02
B_SIZE		-0.41	-0.29	-0.37	0.27	-0.26	0.14	-0.32	0.36	-0.23	0.26
B_MEETINGS		-0.13	0.06	0.03	0.03	0.00	-0.06	0.08	0.22	-0.03	0.09
B_INSIDECHAIR		-0.12	-0.08	-0.11	0.10	-0.06	0.09	-0.13	0.06	-0.06	-0.01
B_STAG		-0.05	-0.05	-0.06	-0.00	-0.04	0.06	-0.06	0.03	-0.00	0.08

(Continued)

TABLE 3 — Continued

Panel B: Spearman correlation matrix (continued)												
	BONUS	BONUS	CEO OWN	TOP5 OPT%	BLOCK	PP	SIZE	M/B	%B-INSIDERS	B-SIZE	B-MEETINGS	B-INSIDE CHAIR
BONUS	0.22											
CEO-OWN	0.00	-0.25										
TOP5-OPT%	-0.04	-0.25	0.28									
BLOCK	0.05	0.19	-0.17	-0.17								
PP	0.00	0.31	-0.30	-0.26	0.50							
SIZE	0.00	0.48	-0.46	-0.58	0.25	0.47						
M/B	-0.08	0.16	-0.09	-0.07	0.04	0.05	0.31					
%B-INSIDERS	-0.00	-0.09	0.20	0.01	-0.09	-0.20	-0.11	0.01				
B-SIZE	0.04	0.30	-0.35	-0.47	0.20	0.28	0.56	-0.01	-0.13			
B-MEETINGS	-0.04	-0.01	-0.16	-0.03	-0.05	0.06	0.09	-0.05	-0.13	0.12		
B-INSIDE CHAIR	-0.00	0.14	0.12	-0.11	0.03	0.11	0.16	0.02	-0.00	0.08	-0.05	
B-STAG	0.05	-0.00	0.00	-0.00	0.04	0.03	-0.06	-0.04	-0.04	0.11	0.05	0.02

The correlation tables depict pair-wise correlation between variables for the combined sample of acceleration and ExecuComp control firms. All correlations significant at $p < 0.05$, two-tailed level, are in bold. See table 1 for variable definitions.

*, **, and *** represent statistical significance of the t -statistic (z -statistic) for the difference in the mean (median) between the accelerating firms and the control firms at the 10%, 5%, and 1% levels, two-tailed, respectively.

acceleration decision. The strong 0.74 correlation between *UNDER%* and *IMPACT* suggests that most of the “savings” in future stock option costs due to accelerated vesting are attributable to underwater options.

3.2 RESULTS RELATED TO LIKELIHOOD OF ACCELERATING VESTING

Panel A of table 4 presents results from estimating equation (1). Because *UNDER%* and *IMPACT* are significantly correlated ($\rho = 0.74$, $p < 0.01$), we do not consider these variables jointly when estimating equation (1) to avoid multicollinearity problems. In addition, we combine the two variables using factor analysis and use the factor scores in the logit estimation as an alternative measure of financial statement reporting benefit.

The results are generally consistent with our predictions. We find that proxies for several accounting motivations are positively associated with the acceleration decision. Consistent with incentives to minimize fair-value expense, firms with more underwater options (column 1) are more likely to accelerate vesting (p -value < 0.01), and firms with greater expense impact (column 3) are more likely to accelerate the vesting of options (p -value < 0.01). The combined factor score using *UNDER%* and *IMPACT* (column 5) is also positive and significant (p -value < 0.01). Since the results with *IMPACT*, *UNDER%*, and the combined factor score are similar, we restrict our discussion of results to those presented in column 5 through column 7. To interpret the effect of the various incentives on the likelihood of the acceleration decision, we present the marginal effects in column 7 of table 4 related to the regression specification reported in column 5. The marginal effects for *UNDER%*, *IMPACT*, and the factor score are based on the logit models reported in column 1, column 3, and column 5, respectively, with each of the effects evaluated at the sample median of the respective distributions. The results suggest that a 100-basis point increase (or 1% increase) from the sample median in the proportion of underwater options increases the probability of acceleration by 0.68%. Further, a 100-basis point increase (or 1% increase) from the sample median in the expense impact as a percentage of net income increases the probability of acceleration by 14.5%. Thus, financial reporting benefits are economically important in the acceleration decision.

Consistent with Aboody, Barth, and Kasznik’s [2004] finding that voluntary adopters try to separate themselves from other firms by demonstrating their willingness and ability to take a charge to earnings, firms that voluntarily recognized options at fair value are less likely to accelerate, indicated by the negative coefficient on *ADOPTERS* (p -value < 0.01). Proxies for financial reporting incentives (*MEET_BEAT* and *LOSS*) do not affect the acceleration decision, possibly because *IMPACT* and *UNDER%* already capture such incentives. Inconsistent with expectations, we find that firms with lower debt equity ratios (*D/E*) are more likely to accelerate the vesting period. As expected, firms with greater stakeholder claims (*STCLAIM* coefficient = 0.20, p -value < 0.05) are more likely to be accelerators because they may be more concerned about managing reporting perceptions.

TABLE 4
Likelihood of Accelerated Vesting of Stock Options

	Pred. Sign	Coeff. Estimate (1)	Z-Statistic (2)	Coeff. Estimate (3)	Z-Statistic (4)	Coeff. Estimate (5)	Z-Statistic (6)	Marginal Effect (7)
Intercept	?	4.01	5.84***	3.20	3.73***	4.99	6.75***	
Accounting factors								
UNDER%	+	5.19	3.91***					0.676
IMPACT	+			166.60	6.40***			14.478
FACTOR (UNDER%, IMPACT)								
ADOPTER	-	-1.81	-2.95***	-2.13	-2.25**	1.28	7.16***	0.163
EQ_ISSUE	+	0.41	2.06**	0.35	1.39	-1.94	-2.65***	-0.266
MEET_BEAT	+	0.03	0.00	0.05	0.10	0.30	1.44*	0.051
LOSS	+	0.60	1.88**	0.17	0.45	0.08	0.17	0.047
D/E	+	-0.24	-1.87	-0.27	-1.47	0.10	0.28	0.111
STCLAIM	+	0.29	2.46***	0.30	2.06**	-0.34	-2.31	-0.046
Economic factors								
D_CAPITAL	+	0.34	1.13	0.61	1.67**	0.44	1.41*	0.080
BHARINDADJ	-	-0.30	1.35	-0.40	-1.50*	-0.25	-1.10	-0.277
Agency factors								
BONUS	+	-1.39	-3.51	-1.74	-3.38	-1.26	-3.05	-0.113
CEO_OWNS	+/-	6.63	4.19***	5.73	3.46***	6.42	4.06***	1.069
TOP5_OPT%	+	7.88	2.30**	3.18	0.86	12.61	3.51***	1.050
BLOCK	-	-6.58	-3.40***	-6.23	-2.48***	-5.39	-2.71***	-1.098
PP	-	-19.20	-2.85***	-19.15	-2.08**	-20.56	-2.84***	-2.996

(Continued)

TABLE 4—Continued

	Pred. Sign	Coeff. Estimate (1)	Z-Statistic (2)	Coeff. Estimate (3)	Z-Statistic (4)	Coeff. Estimate (5)	Z-Statistic (6)	Marginal Effect (7)
%B_INSIDERS	+	-0.34	-0.53	-0.21	-0.26	-0.51	-0.74	-0.088
B_SIZE	+	-0.08	-1.79	-0.05	-0.92	-0.08	-1.66	-0.010
B_MEETINGS	?	0.01	0.56	-0.01	-0.35	0.01	0.51	0.002
B_INSIDECHAIR	+	-0.29	-1.37	0.06	0.20	-0.29	-1.32	-0.047
B_STAG	+	-0.17	-0.93	-0.11	-0.46	-0.20	-1.03	-0.031
Other variables								
SIZE	?	-0.43	-5.24***	-0.47	-4.34***	-0.50	5.68***	-0.075
M/B	?	0.02	0.94	0.02	0.70	0.03	1.18	0.003
Pseudo-R ² (total)		40.06%		55.27%		43.24%		
Incr. pseudo-R ² (acctg)		2.36%		17.57%		5.54%		
Incr. pseudo-R ² (economic)		1.92%		1.07%		2.23%		
Incr. pseudo-R ² (agency)		11.15%		5.31%		10.86%		

The estimation equation is:

$$\begin{aligned} \text{Pr}(\text{Accelerated vesting}) = & \beta_0 + \beta_1 \text{UNDER\%} + \beta_2 \text{IMPACT} + \beta_3 \text{ADAPTERS} + \beta_4 \text{EQ_ISSUE} + \beta_5 \text{MEET_BEAT} + \beta_6 \text{LOSS} + \beta_7 \text{D/E} + \beta_8 \text{STCLAIM} + \beta_9 \text{D_CAPITAL} \\ & + \beta_{10} \text{BHAR_INDADJ} + \beta_{11} \text{BONUS} + \beta_{12} \text{CEO_OWN} + \beta_{13} \text{TOP5_OPT\%} + \beta_{14} \text{BLOCK} + \beta_{15} \text{PP} + \beta_{16} \% \text{B_INSIDERS} + \beta_{17} \text{B_SIZE} \\ & + \beta_{18} \text{B_MEETINGS} + \beta_{19} \text{B_INSIDECHAIR} + \beta_{20} \text{B_STAG} + \beta_{21} \text{SIZE} + \beta_{22} \text{M/B} + \varepsilon \end{aligned}$$

The sample consists of 354 accelerating firms with 665 ExecuComp control firms. For variable definitions see table 1. We do not report significance levels that assume a sign opposite to the one predicted. The marginal effects reported in column 7 are evaluated at the median of the distribution of the independent variables. Incr. pseudo-R² represents the incremental pseudo-R² obtained when including the accounting, economic, and agency variables in the model relative to the pseudo-R² obtained when including all variables other than the accounting, economic, and agency variables in the model.

*, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, respectively, one-tailed (two-tailed) if the coefficient sign is predicted (not predicted).

With respect to the other variables, we find that firm size plays a major role in the acceleration decision in that smaller firms are more likely to accelerate. To appreciate the importance of the accounting motivation, we report the incremental explanatory power. We estimate the incremental explanatory power (pseudo- R^2) by comparing the R^2 value of the full model and the R^2 value of the model excluding the accounting factors. The incremental explanatory power (pseudo- R^2) for the accounting variables ranges from 2.36% to 17.57%, depending on whether we include *UNDER%*, *IMPACT*, or the factor score that captures both variables.

Turning to the economic motivations, we find a positive coefficient on *D_CAPITAL* (p -value < 0.10) only when the specification includes the *IMPACT* or the factor variable, providing weak evidence that cash-constrained firms are more likely to accelerate vesting. The coefficient on *BHAR_INDADJ* is weakly significant in the column 3 specification. The incremental pseudo- R^2 for the economic variables ranges from 1.07% to 2.23%. Thus, we conclude that economic factors have relatively lesser influence on the acceleration decision.

Turning to the agency explanations, we find that *BONUS* is negatively related to the accelerated vesting decision, inconsistent with our predictions. A plausible explanation for this finding is that a lower level of *BONUS* implies less reliance on bonus contracts, which in turn suggests that incentive compensation for executives relies more on equity compensation such as options and restricted stock. Such an equity bias in compensation might provide incentives for managers to manage earnings, as proposed in Bartov and Mohanram [2004], Bergstresser and Phillipon [2005], Burns and Kedia [2005], and Cheng and Warfield [2005]. Consistent with findings in Cheng and Warfield [2005], we find a strong positive relation between *CEO_OWN* and accelerated vesting (coefficient = 6.42, p < 0.01), suggesting that firms with greater managerial ownership have more incentives to manage financial reporting outcomes. Consistent with managerial incentives to avoid expense recognition, we find that managers with significant option compensation are more likely to accelerate, that is, the coefficient on *TOP5_OPT%* is positive and significant (coefficient = 12.61, p -value < 0.01). This variable is also economically significant; the marginal effect suggests that if the option compensation of top five managers increases by 100 basis points (i.e., 1% increase) the probability of acceleration increases by about 1%.

With respect to external governance variables, we find negative and statistically significant coefficients on *BLOCK* and *PP* at the 1% level, consistent with expectations that blockholders and pension funds are generally averse to resetting terms of ESOs. A 1% (100-basis point) decrease in *BLOCK* and *PP* (from the median of their respective distributions) increases the probability of acceleration by about 1% and 3%, respectively. Contrary to expectations, we find weak evidence that larger boards are less likely to be associated with acceleration (coefficient = -0.08, p -value < 0.10). The incremental explanatory power of the agency variables ranges from 5.31%

to 11.15%, suggesting that agency motivations have significant explanatory power for the likelihood of acceleration.

We conclude that a firm is more likely to accelerate the vesting of options when the firm (1) can avoid reporting a future accounting expense for options, (2) has a shareholder base less likely to be dominated by blockholders and pension funds, (3) has higher levels of option compensation for its top five managers, and (4) is smaller. Thus, a combination of accounting and agency factors is associated with accelerated vesting of ESOs in anticipation of FAS 123-R.

3.3 MATCHED SAMPLE

One limitation of the broad control sample that we use is that a vast majority of accelerators have underwater options; these options are presumably underwater because of poor stock price performance. Accelerating firms are typically small and concentrated in the technology industries, whereas the control sample is comprised of a broad cross-section of firms. Regardless of how many variables we include in the regression, it is difficult to fully control for the inherent differences between these samples. To minimize the likelihood that the control sample differences contribute to the results, we test the robustness of our results using a matched sample, matching treatment and control firms using industry membership (3-digit NAICS code), size, operating performance, and lagged annual buy-and-hold returns. We identify potential matches from a sample of 1,300 firms with board data supplied by Equilar, excluding accelerating firms. We first restrict matches to firms in the same industry. Following Huang and Stoll [1996], we identify a match as the one with the smallest deviation score (summed mean squared distance) using three attributes: (1) total assets (*Total.Assets*), (2) operating performance (*Op.perf*), and (3) buy-and-hold return (*Return*).²⁰ The deviation score is computed as follows:

$$\left[\frac{Total_Assets_m - Total_Assets_a}{(Total_Assets_m + Total_Assets_a)/2} \right]^2 + \left[\frac{Op.perf_m - Op.perf_a}{(Op.perf_m + Op.perf_a)/2} \right]^2 + \left[\frac{Return_m - Return_a}{(Return_m + Return_a)/2} \right]^2$$

where “a” and “m” are subscripts for accelerating firm and matching firm, respectively. We repeat the process four times to avoid duplicate matches.

Unreported results are largely consistent with the control sample analysis. We find (1) firms with greater *UNDER%* or *IMPACT* can avoid reporting a future accounting expense, (2) firms with a shareholder base are less dominated by blockholders and pension funds, and (3) firms that report

²⁰ The variables are measured using Compustat data items as follows: (1) *Total.Assets* = data #6, (2) *Op.perf* = data #13/data #2, and (3) *Return* = ((data #199_{t-1}/data #27_{t-1}) - (data #199_{t-2}/data #27_{t-2}) + (data #26_{t-1}/data #27_{t-1}))/(data #199_{t-1}/data #27_{t-1}) where *t-1* and *t-2* are time subscripts.

higher levels of option compensation for top five managers are most likely to accelerate. However, we find no relation between board structure and the accelerated vesting decision. In general, we conclude that the findings related to cross-sectional determinants of accelerated vesting are robust to using a matched sample of firms.

4. *Market Reaction to Accelerated Vesting*

4.1 MARKET REACTION TO ACCELERATED VESTING ANNOUNCEMENTS

We examine the stock market reaction surrounding accelerated vesting announcements to understand investor perceptions. If investors perceive accelerated vesting as a wealth transfer to employees, then we expect to find a negative reaction. Alternatively, if the market perceives that accelerated vesting is merely an accounting choice with no attendant costs, we expect no reaction on average. Our ability to use stock returns surrounding the announcement to measure wealth transfer is limited by the extent to which market participants anticipate the announcement. Therefore, we caution readers that the purpose of the analysis is to highlight rather than quantify the wealth transfer.

To conduct this test, we obtain returns data from the Website <http://www.yahoo.com>. We estimate cumulative five-day risk-adjusted stock returns (*CAR*), measured around the announcement date (day 0) from Yahoo.com. For the returns analysis reported in the remainder of the paper, returns are obtained from the CRSP database. We use a five-day window to allow sufficient time for market participants to process the information as several of the acceleration announcements are made in an SEC filing (10-K/10-Q/8-K). We use traditional market model betas to adjust for risk using the Russell 2000 Index as the market return, estimated over a 250-day period from day -20 to day -270 (note that the results are insensitive to using market returns based on either the Dow Jones Index or the S&P 500 index). The event date is assumed to be the trading day on which the firm first issues a press release or files a 10-K/10-Q/8-K that contains a disclosure of the accelerated vesting.²¹

Table 5, panel A presents summary statistics relating to the stock market reactions to 365 accelerated vesting announcements made by 354 distinct firms; 11 firms accelerate twice. The mean announcement return is -0.99% and is statistically negative (t -statistic = -2.92). Most of the negative reaction

²¹ In an untabulated robustness check, we compute a time series-based version of *CAR* and find that we obtain qualitatively similar results to those reported in the text. In particular, we estimate the following equation over the period January 2004 through November 2005 separately for each firm: $RET_{jt} = \beta_0 + \beta_1 MRET_t + \beta_1 EVENT_{jt} + \varepsilon_{jt}$, where RET_{jt} is firm j 's daily stock return, $MRET$ is the daily market return, and $EVENT_j$ is an indicator variable equal to 1 for each of the five days surrounding firm j 's accelerated vesting announcement date, and 0 otherwise, and t denotes the trading day.

TABLE 5
Abnormal Returns Surrounding Accelerated Vesting Announcement

Panel A: Summary statistics from firm-specific estimation of abnormal returns				
	Accelerated Sample			
Event Date	<i>CAR</i>			<i>t</i> -Statistic
-2	-0.03%			-0.31
-1	-0.29%			-2.20**
0	-0.10%			-0.64
1	-0.02%			-0.07
2	-0.56%			-3.53***
(-2, 2)	-0.99%			-2.92***
Panel B: Summary statistics of abnormal returns by disclosure type				
	All	10-K/Q	8-K	Press Release
Abnormal return	-0.99%	-1.57%	-0.67%	-2.18%
<i>t</i> -statistic	-2.92***	-2.15**	-1.75*	-1.38
<i>N</i>	365	96	252	17

The sample consists of 365 acceleration announcements comprising 354 unique firms. *CAR* represents cumulative abnormal returns. See table 1 for variable definitions.

*, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, two-tailed, respectively.

occurs on the day before (-1) and the two days after (+2) the announcement.²² Untabulated results indicate that 56% of the observations report a negative reaction; a ranked sign test rejects the null of no reaction (p -value = 0.02). Eliminating multiple announcements by the same firm does not alter any of our inferences. The negative announcement return is consistent with market participants viewing acceleration as an economically significant wealth transfer to employees and a value-decreasing proposition on average. This result follows Chi and Johnson [2008], who find a stronger association between firm value and unvested options than vested ones, suggesting that the incentive power of options is greater for unvested options. To gauge the economic significance, we compare this reaction to negative earnings announcements. Prior research (e.g., Jegadeesh and Livnat [2006], Bernard and Thomas [1990]) documents an announcement period return of about -1% to -1.5% for a three-day window surrounding the announcement of bad earnings news. We explore potential cross-sectional determinants of this *CAR* in the following sections.

4.1.1. Confounding Events. The results presented in table 5, panel A do not control for concurrent announcements or differentiate among the alternative disclosure forms. In panel B we separate announcement forms

²² We consider the possibility of a drift or a reversal in returns around the acceleration announcement. In particular, we correlate the abnormal return for days (-2, +2) around the acceleration announcement on abnormal returns for days (+3, +7), the trading week after the announcement return window that we analyze. Note the mean abnormal return for days (+3, +7) is -0.02% and is not statistically different from zero (t -statistic = -0.07). Further, the correlation between abnormal returns on windows (-2, +2) and (+3, +7) is 0.02 (p -value = 0.80). Hence, we find no evidence of a drift or a reversal.

across 8-Ks, press releases, and 10-Ks/10-Qs. Results indicate that all three announcement forms have negative abnormal returns; 8-K announcers are the most frequent and the least contaminated, and have a negative reaction of -0.67% (t -statistic = -1.75).

We also conduct a LexisNexis search to examine press releases surrounding the announcement dates to eliminate firms with concurrent announcements of mergers, acquisitions, substantial contracts, earnings releases, management earnings forecasts, dividend announcements, or share repurchases. Because 10-Ks and 10-Qs always contain a significant amount of financial and nonfinancial information, we restrict our analysis of confounding events to firms that disclose the acceleration decision in an 8-K or press release. Unreported results indicate that the abnormal returns surrounding the uncontaminated acceleration announcements is -0.72% and is statistically significant at the 10% level, two-tailed (t -statistic = -1.76). Thus, we conclude that confounding announcements do not appear to be a first-order concern.

4.1.2. Announcement Information. SEC Professional Fellow Chad Kokenge stated on December 6, 2004 that firms choosing to accelerate vesting of stock options must not only disclose their decision, but must also provide the reason for accelerating the vesting (Kokenge [2004]). We read press releases and SEC filings to identify motivations disclosed by accelerators to justify the acceleration decision. Of the 365 accelerated vesting announcements, 83% of the announcements contain one or more of the following six disclosures:²³ (1) the accelerating firm wants to eliminate the stock option expense, (2) employees are to refrain from selling vested shares on option exercise until the original date of vesting, (3) the firm is accelerating vesting to improve employee retention and morale, (4) stock options are not achieving their original objectives, (5) the acceleration is in the best interest of the firm's shareholders, and (6) options have limited economic value. Table 6, panel A reports the frequency distribution for each disclosure. The most common reason is the desire to eliminate stock option expense (285 instances).

To examine whether the returns to acceleration announcements vary cross-sectionally by the disclosed justifications, we first assess whether disclosure of any reason is correlated with the cross-sectional distribution of *CARs*. We create a dummy variable, *DISCLOSER*, which is one if a firm reports any justification, and zero otherwise. Table 6, panel B reports that the coefficient on *DISCLOSER* is positive and weakly significant, suggesting that the market penalizes firms that do not report any reason for accelerated vesting of stock options. Results support investor disapproval of insufficient disclosures.

²³ In our sample, 15 firms accelerate the vesting of options prior to Chad Kokenge's speech (Kokenge [2004]). Ten firms announce the acceleration prior to his speech. Deleting these observations does not affect our inferences.

TABLE 6
Cross-sectional Differences in Abnormal Returns Surrounding Accelerated Vesting: Announcement Examining Reasons for Accelerated Vesting

Panel A: Frequency distribution of reasons for accelerated vesting		N	
Reason		285	
Reason 1: Eliminate stock option expense		51	
Reason 2: Refrain from selling until original vesting date		52	
Reason 3: Improve morale or retention		52	
Reason 4: Options not achieving original objectives		45	
Reason 5: Best interest of shareholders		19	
Reason 6: Have limited economic value			
Panel B: Summary statistics from regression of announcement abnormal returns on the reason for accelerated vesting			
Variable	Coefficient Estimate	Coefficient Estimate	Coefficient Estimate
Intercept	-0.021 (-2.59)***	-0.009 (-2.36)***	-0.011 (-3.16)***
DISCLOSER	0.013 (1.51)*	-0.009 (-2.82)***	-0.010 (-2.85)***
Reason1	0.013 (1.64)*	-0.009 (-0.94)	0.003 (0.35)
Reason2	0.016 (1.66)*		0.009 (0.92)
Reason3			0.020 (1.31)
Reason4			0.19% (1.17)
Reason5			0.68%
Reason6			
Adj. R ²	0.35%	0.48%	-0.04%

Sample consists of 365 acceleration announcements comprising 354 unique firms. *t*-statistics in parentheses. Abnormal returns computation defined in table 1. *, **, and * represent statistical significance at the 10%, 5%, and 1% levels, respectively, one-tailed (two-tailed) if the coefficient sign is predicted (not predicted).

An analysis of the association between *CARs* and the stated reasons reveals that the stock market appears to favorably value two reasons for accelerated vesting: (1) elimination of the stock option expense and (2) employees may not sell the vested shares until the original option exercise date. We conjecture that reason (2) reflects a desire to curtail the abuse of early vesting and reduces the economic cost of accelerated vesting to the firm. It is difficult to interpret the positive coefficient on reason (1) because there is a significant overlap between firms that voluntarily disclose a reason for acceleration and those that claim that the reason for acceleration is elimination of the stock option expense.

4.1.3. Cross-sectional Analysis of CAR. In this section, we analyze whether the cross-sectional variation in *CARs* is associated with accounting, economic, and agency factors. We expect the stock market to react positively or less negatively to the acceleration announcement if such acceleration is driven by economic considerations. We expect firms with poor performance relative to industry to accelerate with an intention to retain employees. Firms with greater agency costs are likely to accelerate the vesting of options more to benefit senior executives and less for genuine economic reasons. Hence, we expect firms with greater agency costs to report larger negative abnormal returns.

Unreported results suggest that accounting factors, with the exception of the factor score that combines *UNDER%* and *IMPACT*, are unrelated to the cross-sectional distribution of *CAR*. Surprisingly we observe a positive association between *CAR* and *BHAR_INDADJ*. That is, the better a firm's prior industry-adjusted performance, the less negative the stock price reaction at the announcement of the accelerated vesting.

Finally, we do not find any systematic relation between external governance variables and abnormal returns. However, the positive coefficient on *BLOCK* indicates that firms that are better governed are associated with a smaller negative reaction on the vesting announcement. Thus, agency proxies explain some of the cross-sectional variation in the announcement returns and this evidence can be interpreted as consistent with accelerated vesting resulting in a wealth transfer from shareholders to managers. Investors perceive the net costs of acceleration to be lower when there are fewer agency problems. Given the mixed results, we are unable to document strong reasons for the negative abnormal returns around the acceleration announcement.

4.2 MARKET REACTION SURROUNDING ACCELERATED VESTING DATES: POTENTIAL BACKDATING

We posit that another potential channel of wealth transfer associated with accelerated vesting of options could arise through backdating the acceleration date. The backdating hypothesis as originally proposed by Lie [2005] is that dates on which executives are granted stock options are determined ex post (i.e., backdated) based on when the stock price of the company is

relatively lower than the actual grant date.²⁴ Research by Dhaliwal, Erickson, and Heitzman [2007] suggests that backdating may extend to other contexts, such as option exercises, in order to minimize tax effects.

Backdating the acceleration date (the new vesting date) when the stock price is relatively lower has two effects. First, backdating minimizes the financial reporting costs. Accelerating the vesting date when the stock price is low (i.e., when the options are at- or out-of-the money) could reduce the intrinsic value to zero on the acceleration date, eliminating recognition of stock option expenses. Recall that a firm recognizes a stock option expense at the acceleration date based on the measurement attribute it is currently using (intrinsic value per APB 25). The scenario described above primarily affects options that are in-the-money at the time of the “actual” acceleration and out-of-the money (or close to out-of-the money) at the backdated acceleration date.

Second, backdating could result in an unrecognized and unreported wealth transfer from stockholders to employees. To illustrate this argument, consider a scenario with two firms, A and B, with similar option exercise prices (\$12) and vesting terms (four years). Assume that the stock price of both firms reaches a low point of \$10 on September 1 and the stock price increases to \$15 by December 31. On December 31, both firms decide to accelerate the vesting date. Firm A chooses to backdate to September 1 when the stock price is \$10. Firm B does not backdate. Firm B records an option expense equal at least to \$3 per option (the intrinsic value of the option at the time of acceleration). Firm A, however, does not recognize any option expense because the acceleration date on record is September 1, when the options are out-of-the-money. Although both firms transfer wealth to employees (as they vest in-the-money options), firm A’s wealth transfer is not transparent because it recognizes no expense related to accelerated vesting. In other words, backdating enables “stealth” compensation to employees. Investors think the acceleration is for out-of-the-money options, when it is not. One can push this reasoning further and argue that given the disincentive associated with reporting a compensation expense in the books, firm B is less likely to even accelerate the vesting of options relative to firm A. Backdating the accelerated vesting date results in a similar wealth transfer consequence as backdating option grants. Estimating the dollar magnitude of the underreported compensation expense and the wealth transfer via backdating is difficult because information about (1) the exact number of accelerated options that are backdated and (2) the “actual” date of acceleration, as opposed to the reported accelerated date, is not readily available.

It is important to note that backdating to the lowest stock price does not provide any greater benefit than backdating to a date where the price is just below the strike price. Continuing with the previous example, the manager

²⁴ We first became aware of potential backdating following a report by Jack Ciesielski (Ciesielski [2006]) and through subsequent discussions with him.

TABLE 7
Distribution of Acceleration Dates Relative to the Filing Date and Stock Returns Surrounding the Acceleration Date

Panel A: Distribution of the lag between the acceleration date and the filing date				
Lag between Acceleration				
Date and Filing Date	No. of Observations			
0	16			
1	27			
2	32			
3	19			
4	38			
5	27			
6	85			
7	19			
≥8	102			
Total	365			

Panel B: Abnormal stock returns around acceleration dates				
Day(s) Relative to Acceleration Date	-20 to 0		1 to 20	
	Mean	<i>p</i> -Value	Mean	<i>p</i> -Value
All firms	-0.017	-2.63	0.014	2.31
Control firms	0.011	1.71	0.021	2.64
Filing lag <2 days	-0.014	-0.99	0.027	2.14
Filing lag 3-5 days	-0.017	-1.25	0.008	0.48
Filing lag 6-7 days	-0.012	-0.99	0.014	1.52
Filing lag >7 days	-0.026	-1.91	0.010	0.87

Panel A presents the distribution of the number of days between the acceleration date and the announcement date or filing date with the SEC. Panel B presents the stock returns surrounding the acceleration dates for (1) the accelerating firms and (2) subsamples based on the lag between the acceleration date and the filing date.

need not backdate to the lowest price of \$10 on September 1. Instead, he may choose a date when the stock price is equal to or less than \$12 (the exercise price) in order to achieve the same reporting benefits. Consequently, unlike options grant backdating, it may be difficult to demonstrate opportunistic evidence of backdating of accelerated vesting dates.

Examining the reporting lags between the acceleration dates and the dates on which the acceleration is reported to the SEC provides some tentative evidence of potential backdating.²⁵ Table 7, panel A presents the

²⁵ The reader might wonder about how the acceleration sample period relates to the timeline of the backdating scandal. Lie [2005] finds evidence of backdating occurring between 1992 and August, 28, 2002, prior to when the SEC shortend the lag time between option grants and filing a form 4. Subsequent to August 29, 2002, Heron and Lie [2007] find a significant reduction in backdating activity, evidenced by lower abnormal returns around option grant dates. Since firms are not required to file a form 4 when accelerating vesting periods, it is possible for firms to backdate the acceleration date to a time when the stock price is low (discussed more fully in section 4.2). According to Bernile and Jarrell [2008], the backdating scandal began to capture public attention subsequent to a March 18, 2006 article in the *Wall Street Journal* (Forelle and Bandler [2006]). The timing of accelerated vesting activity falls between the early occurrence of option backdating and the unveiling and investigation of firms who are accused of backdating.

distribution of the reporting lag. We find that the modal reporting lag is six days. This may be surprising because our sample period falls after the Sarbanes Oxley Act, which tightened the reporting regulations for stock option grants. Selecting the accelerated vesting date is discretionary; hence, managers can opportunistically time the acceleration such that the options are at- or out-of-the-money. Conversations with an analyst, an SEC official, and a securities lawyer suggest that there is no requirement to file a form 4 or any other kind of notice when a firm accelerates the vesting of options.²⁶ The only disclosure requirement pertains to revealing the justification for the acceleration (discussed in section 4.1.2, see also table 6). However, because the constraint on reporting these accelerations does not stem from insider filing regulations, we caution readers that our backdating evidence based on reporting lags is suggestive but not definitive.

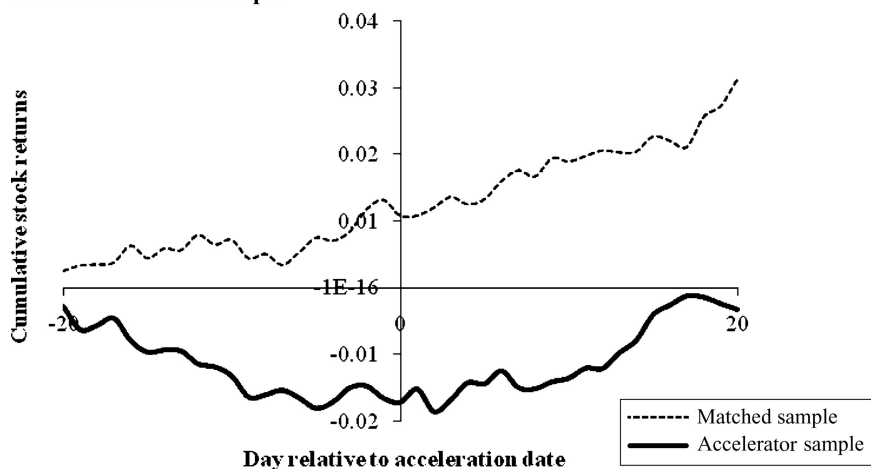
We next examine return patterns surrounding the acceleration date for a deeper analysis of the backdating hypothesis. Figure 2A depicts the cumulative raw returns from 20 trading days before through 20 trading days after the accelerated vesting dates. We focus on cumulative raw returns, as opposed to abnormal returns, because the benefits of acceleration to the firm (in the form of a lower financial reporting cost at the time of acceleration) and to the employee (via early possible exercise due to immediate vesting) are based on the firm's own stock price performance, not abnormal stock price performance. Similar to the findings in Heron and Lie [2007], we find that the average return for the accelerating firms starts to decline 20 days prior to the acceleration date and increases immediately afterward. The average cumulative return during the 20 trading days prior to the acceleration date is -1.7% and is statistically significant at the 1% level (t -statistic = -2.63). After the acceleration date, there is a return reversal; during the 20 days subsequent to acceleration the average return is 1.4% (t -statistic = 2.31). However, this reversal pattern in returns is not observed for the matched sample (see fig. 2A).²⁷

Narayanan, Schipani, and Seyhun [2007] argue that the gain from backdating is smaller for the group with the shorter reporting lag. Heron and Lie [2007] find that after the implementation of the two-day, form 4 reporting requirement, the abnormal positive return pattern is consistent with backdating for option grants with at least four-day reporting lags, but nonexistent for one-day reporting lags. We explore whether the return patterns during

²⁶ The Sarbanes Oxley Act modifies the reporting requirements under section 16(a) of the Securities Exchange Act of 1934 and mandates that any stock option grants be filed with the SEC via form 4 within two business days. However, this reporting requirement does not apply to changes in the vesting period of existing option grants.

²⁷ In untabulated analyses, we delete the 51 firms (shown in table 6) where the vesting is accelerated but firms restrict managers from exercising the options until the original vesting date. Our inferences are similar to those found in the full sample. Interestingly, for those 51 firms, the cumulative returns do not display any reversal patterns surrounding the acceleration date.

Panel A: Cumulative stock returns around acceleration vesting dates for accelerating firms and matched sample



Panel B: Cumulative stock returns for accelerating firms around acceleration vesting dates based on the filing lag

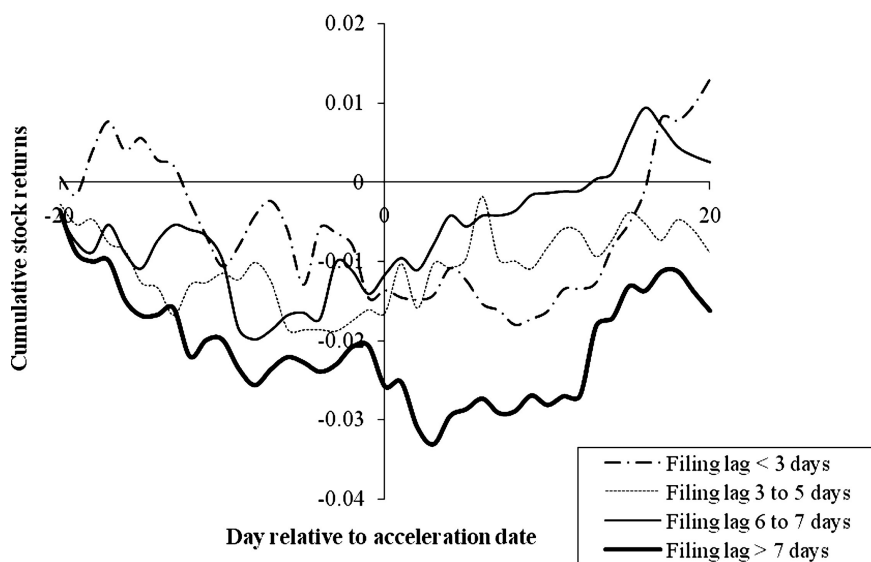


FIG. 2.—Cumulative stock returns for accelerating firms around acceleration vesting dates. Panel A shows the cumulative raw stock returns from 20 days before through 20 days after the acceleration date. The thick lines pertain to cumulative stock returns for the accelerating firms. The thin lines pertain to cumulative stock returns for the matched control firms surrounding the acceleration date for the corresponding treatment firm. Panel B shows the cumulative raw stock returns from 20 days before through 20 days after the acceleration date for various filing lags. Filing lag is the distance between the acceleration date and the filing date.

accelerated vesting are associated with the reporting lag. Table 7, panel B presents return patterns for 20 days before and after the accelerated vesting date across various filing lags between the reported vesting date and the SEC filing date (or the press release date). Figure 2B depicts the same relation graphically. The decline in returns before the acceleration date (-2.6%) is the greatest for firms with the longest reporting lag (greater than seven days). The stock price increase subsequent to the acceleration date is 1% , but not statistically significant. The dip in stock price prior to the acceleration and the subsequent increase in price are consistent with the presence of acceleration backdating and the potential wealth transfer to employees. Quantifying the wealth transfer is challenging because it is difficult, if not impossible, to identify future option exercises that correspond to accelerated options. We acknowledge that there is an alternate interpretation of the results. There is an incentive to opportunistically time the acceleration to a date when the stock price is low in order to accelerate more options and incur lower financial reporting costs. Opportunistic timing can be accomplished without backdating if managers have private information about firm performance via voluntary disclosure strategies.

5. *Conclusions*

We investigate the factors associated with firms' decisions during March 2004 to November 2005 to accelerate the vesting period of stock options in anticipation of June 15, 2005, the date on which FAS 123-R becomes effective. We also investigate the stock market reaction associated with the accelerated vesting announcements.

We find that firms accelerate the vesting of options to realize the accounting benefit associated with recognizing option compensation cost under the APB 25 "intrinsic" value regime as opposed to the upcoming FAS 123-R "fair-value" regime. Firms with stronger institutional monitors such as blockholders and public pension funds are less likely to accelerate vesting. The stock market reaction to the announcement of the vesting decision is, on average, negative and is more negative for firms that are subject to larger agency problems. Accelerating the vesting period of options increases reported earnings by 23% , on average, but that action reduces market capitalization by about 1% . Moreover, the return patterns around the acceleration date are consistent with managers choosing a past date on which the stock price is particularly low to be the new vesting date. This significantly enhances their ability to exercise in-the-money options much earlier than scheduled by the original grant. We interpret this evidence as consistent with managers exploiting poor governance and greater agency problems to take financial reporting actions that the stock market views as value-decreasing and transferring wealth to employees.

The evidence presented in this study adds to our understanding of the "real" effects of accounting standards; in particular, how firms endogenously change compensation arrangements in response to new standards that affect

their financial reporting outcomes. We admittedly focus on only one, albeit interesting, contracting choice made by firms to avoid financial reporting costs associated with the passage of FAS 123-R.²⁸ As proxy disclosures become available, future research could examine whether firms attempt other changes to their compensation arrangements due to FAS 123-R (e.g., cuts in rank and file option programs and employee stock purchase plans).

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²⁸ Firms may also engage in other earnings management devices to increase future reported earnings. For example, firms could use income-decreasing accruals that reverse in the future. However, we do not find (results not reported) any evidence consistent with this hypothesis.

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