FINANCIAL ANALYST SURVEY OF SFAS 123(R) - EMPLOYEE STOCK OPTION COMPENSATION EXPENSE

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Abstract

This study examines practitioners' perceptions of uses of stock option compensation expense. Specifically, Statement of Financial Accounting Standard (SFAS) No. 123(R) requires firms to report the estimated fair value of stock option compensation as an expense over the employees' required service period. There has been much controversy surrounding this standard: academics, industry leaders and regulators question the reliability of estimating stock option value; consequently, the usefulness of reporting stock option expense in financial statements has been challenged. We provide insights into this debate by finding that financial analysts, on average, support the expensing of stock option expense. Further, approximately two-thirds of analysts use stock

option expense in their forecast of short and long term earnings. We also find that analysts' practices regarding stock option expense are not swayed by managements' exclusion of stock option expense in earnings announcements. Together, our findings suggest that financial analysts believe stock option expense contains meaningful information about firm performance.

1. INTRODUCTION

Through the years, there have been numerous new regulations released by the Financial Accounting Standards Board (FASB). As the accounting world transitions to international accounting rules, corporate, business, and regulatory environments need to fully understand how changes in accounting regulations impact the use of corporate accounting information. Previous accounting research has identified the ability of management of accounting regulation to achieve socially desirable goals, such as increasing corporate transparency, lowering transaction costs, and increasing the firm's liquidity (Lev 1988).

Stock based compensation information has long been a topic of interest to regulators and financial statement users. The original pronouncement regarding accounting for stock options, Accounting Principles Board Opinion (APB) No. 25, was issued in 1972. APB No. 25 employed the "Intrinsic Value Method," under which firms were required to report compensation expense due to stock options in an amount equal to the excess of the stock price at the grant date over the exercise price. Because most options have an exercise price at least equal to the grant date stock price, it was uncommon for the intrinsic value method to result in an expense. The "Fair Value Method" of accounting for stock options was introduced in 1995 with Statement of Financial Accounting Standard (SFAS) No. 123. Under the fair value method, the fair value of stock options is determined at issuance using an options-

pricing model. Stock compensation expense is then determined by amortizing the fair value of the options over the requisite service period.

There was one big "catch" regarding SFAS 123: it was a voluntary measure. A company could choose to either (a) report stock compensation expense determined per the fair value method in its income statement, or (b) report stock compensation expense determined per the intrinsic value method in its income statement and report stock compensation expense determined per the fair value method in its footnotes. Finally, in 2004, the FASB released SFAS 123(R), which replaced the original SFAS 123. SFAS 123(R) eliminated the optionality of the original SFAS 123. As such, while the expensing of stock option compensation was elective per SFAS 123, under SFAS 123(R), the expensing of stock option compensation became mandatory.

The change was very controversial with 6,536 comment letters submitted to the Exposure Draft of SFAS 123(R). Our count of the letters indicated that the employees of the following firms were the most prominent in their objection to the proposed change: Cisco Systems Inc., 2,195 letters; Applied Materials Inc., 435; Sierra Health Systems, 330; Intel, 191; and Sun Microsystems, 141. We sampled the content of many of these letters and did not find one supporting the change and many being boiler-plate in their wording. As can be seen from the companies with the largest number of letters commenting on the proposed changes, technology firms were highly vocal in their opposition.

The mandatory expensing of stock option compensation has had a great impact on the bottom line of many firms. Further, as highlighted above, stock option compensation expense is a highly controversial policy with no clear "right" or "wrong" interpretation of the practice. As such, it is important to understand the manner in which users of financial statements view the new stock based compensation expense rules. More specifically, we are interested in financial analysts' interpretation of the standard and the use of

stock based compensation expense in their forecasts of quarterly and annual earnings.

Through surveying 77 financial analysts, we were able to obtain their current views as to how they use SFAS 123(R) information for their earnings forecasting calculations. Using a survey approach allowed us to understand analysts' views on the importance of this information as they value a firm's earnings. In addition, we interviewed five experienced analysts to obtain additional insights into their views on the use of stock based compensation expense in earnings forecast calculations. These individuals were from large firms with multiple years of forecasting experience, as well as involvement covering various industries. Some primary research questions included understanding if analysts include or exclude the stock based compensation expense in their forecasts, and whether the issuance of 123(R) changed their use of the information in their forecasting approach.

This analysis will allow us to better understand whether the requirement to expense stock based compensation aided analysts in their usage of a corporation's financial statement information to forecast the company's earnings. Our results indicate that the majority of financial analysts believe the stock option compensation expense should be included in GAAP earnings. In addition, most of the analysts include the stock option expense in their earnings forecasts. Lastly, approximately 75 percent of our sample explained that their forecasting method (in relation to stock option compensation expense) has not changed since the issuance of SFAS 123(R). These results indicate that, despite loud and public criticism of the new standard, accounting information contained in stock based compensation is useful to financial analysts; however, many were already incorporating the information into their forecasts.

The remainder of our paper is as follows: Section 2 contains a literature review, Section 3 presents our research

methodology, Section 4 explains the results, and Section 5 includes our conclusions.

2. LITERATURE REVIEW

The following two part literature review covers stock option compensation expense in the financial media (Section 2.1) and in academic research (Section 2.2). In these sections, we also explain, where appropriate, how our work herein extends the cited research.

2.1 Financial Press Stock Option Literature

Investigating the discussion of stock option compensation expense in the financial press helps us to understand the importance of the topic to the business world and the application of that information for users of the financial statement information. One of the most cited quotes involving the argument for expensing stock options was offered by Warren Buffet in the early 1990s when the expense debate was extant: "If options aren't a form of compensation, what are they? If compensation isn't an expense, what is it? And if expenses shouldn't go into calculations of earnings, where should they go?" (Buffet 1999, 14)

Alan Greenspan, then Chair of the Federal Reserve, also weighed in on the matter by stating in 1991 that the failure to expense options was artificially inflating profits and stock prices and that "This distortion, all else equal, has overstated the growth of reported profits according to Fed staff calculations by one to two percentage points annually during the past five years" (Greenspan 1999, 2). In fact, the Federal Reserve conducted research that indicated that between 1995 and 2000, Standard and Poor's 500 companies averaged a 12 percent net income growth rate. Had stock options been expensed, they estimated that this rate would have dropped to 9.4 percent (Hitt and Schlesinger 2002).

In another study of the NASDAQ 100 companies over the period 1999-2001 (Ciccotello et al. 2004), the authors found that,

on average, these companies would have to spend thirty-nine cents of every dollar of revenue to fully fund the options exercised and avoid increasing the shares outstanding. Last, even Jeffrey Skilling, then former Enron Chief Executive, stated in testimony before Congress that "The most egregious (method), or the one that is used by every corporation in the world, is executive stock options. Essentially what you do is to issue stock options to reduce compensation expense, and therefore increase your profitability" (Fox 2002, 1).

In a survey conducted by the Association for Investment Management and Research, more than 80 percent of the financial analysts and portfolio managers polled stated that employee stock options are compensation and should be included as an expense on companies' income statements (Hayward 2002, 5). An interesting observation is that Peter Holgate, then senior technical partner at PricewaterhouseCoopers, disagreed, stating that while information on the fair value of the stock options is useful, it should not be expensed. His argument was that "This is a very sensitive issue and large amounts of money are involved. Users of accounts focus on cash-based earnings, and it is unclear how they would react to changes in respect to share schemes" (Hayward 2002, 5).

At about the same time, the Accounting Standards Executive Committee (AcSEC) of the American Institute of Certified Public Accountants (AICPA) had voted (by a 9 to 6 majority) to oppose the FASB stock option exposure draft. The committee's stated reason was that the option pricing models proposed to calculate the fair value of the employee stock options and the concomitant expense were designed for use with traded options and thus the calculated fair value of the employee stock option couldn't be validated by a third party (Journal of Accountancy 1994).

Some firms, in their earnings releases, currently list net income in conjunction with income with the cost of stock options added back. In a quite critical analysis of this practice, David Pauley of Bloomberg News wrote an article titled "Analysts Still

Promoting Corporate Earnings Lies; Intel's $1US.45B Fine, Google's Options Ignored" (Pauley 2009). The author criticized securities analysts for providing earnings estimates that exclude stock option expense and cited Google as an example, with the number being $.70 per share higher than the net income figure. Some over the counter companies, based on a small sample we researched, provided both GAAP and non-GAAP numbers which added back, among other things, stock option expense in their earnings releases: Interactive Intelligence (2010 full year) and DivX, Inc. (2009 full year), both of which are traded over the counter. A small sample of larger firms' results, e.g., Bristol-Myers (full year 2010) and Dow Chemical (2010 full year), revealed no such adjustment for stock options. However, both firms did release a non-GAAP income number which was adjusted for various other items (i.e., discontinued operations, gains and losses from sales of business lines, goodwill impairment losses etc.).

Another important article in the financial press focused on Microsoft's use of stock options and its potential "liability" to prevent dilution through the purchase of treasury shares (Lowenstein 1997). In 1996, Microsoft reported net income of $3.45 billion, and issued 47 million additional shares to employees as they exercised their stock options. In order to counter this dilution, the company purchased 37 million shares on the open market at a cost of $3.1 billion. Although no expense was recorded since the acquisition would be recorded as a treasury stock purchase, the author in his analysis observed "At the end of the day, two-thirds of its reported earnings had vanished, and its total float was higher than before … any way you slice it, a huge portion of its earnings was consumed in the selling-cheap, buying-dear stock option treadmill" (Lowenstein 1997, C1).

The author went on to mention that the company had 258 million extant options whose exercise price, on average, was $100 less than the current market price, which would require a net outlay of about $26 billion to purchase treasury stock to negate dilution.

Gregory Maffei, the Chief Financial Officer, stated that the money needed to retire those shares "is probably the most important liability we have" (Lowenstein 1997, C1).

Asness (2004), in a paper written prior to SFAS No. 123(R), addressed various reasons given as to why employee stock options shouldn't be expensed, after offering the following argument for their expense recognition: (p. 9)

> "This part is easy. Options are something of value even if they are out of the money. They are valuable because they will be exercised only when it is advantageous to the employee and harmful to the company's shareholders (when the future price exceeds the price at which the option was struck). That is, they will be exercised only when the option holders can take part of the company from shareholders at below-market prices. The right to do this, with no risk of loss, is valuable. Even more simply, options are something people want and desire. When the company gives them away, the company is giving away something of value, and that is called an expense."

Last, although the Congressional Budget Office (CBO) is not a member of the financial press, it conducted a study in 2004 focusing on, among other things, the relevant issues of accounting for employee stock options and the potential economic impact of recognizing them as an expense. The study was prepared at the request of Congressman Brad Sherman, a member of the House Committee on Financial Services, in response to the FASB's exposure draft proposing to require firms to record their fair value on the income statement (Congressional Budget Office 2004).

The document stated that some financial analysts perceived that requiring the stock options to be expensed would be both unnecessary and ill advised. Those who perceived it to be unnecessary felt that the fair value information was already in the footnotes and therefore transparent. Those who thought it was not transparent believed that this new information could negatively

affect stock prices of firms that grant employee stock options and could potentially damage the economy.

Yet other analysts believed that the cost of the options cannot be estimated on a reliable basis and therefore expensing them would diminish the accuracy of net income. Some others opposed cost recognition because they viewed it as a redistribution of stockholders' equity rather than an expense. The CBO concluded, among other things, that 1) if the options are not expensed net income will be overstated, 2) the fair value of the expenses can be estimated just as reliably as other expenses, and 3) expensing the stock options will not damage the economy, given that the information has already been disclosed. However, it might make the information more transparent to less sophisticated investors.

In summary, this review of the non-academic literature indicates the overall view that the fair value of the options are indeed an expense that should be recognized on the income statement. The omission of this expense inflates net income at the cost of reliability. Some authors, such as Lowenstein (1997) in his detailed Microsoft analysis, sought to educate financial statement users as to the true cost of the employee stock options and the distortion of net income that the extant accounting treatment engendered. Surveying financial analysts on their current treatment of stock option compensation expense will aid in updating our understanding of the usefulness of the option expense information to users of financial statements.

2.2 Academic Research

Academic research helps us understand the consequences of new accounting regulations. More specifically, academic research examines the many facets of new accounting standards by documenting the stock market reaction to new accounting information, investors' usage of new accounting information in determining firm valuations, impacts of new accounting regulations on analysts' forecasting behavior, and the impact of

new regulations on the quality of financial statement data. While each of these branches is generally studied independently of the others, they are naturally related. As outlined below, we believe our study contributes to these various branches of academic research as they relate to SFAS 123(R).

In a seminal study regarding the market reaction to stock based compensation, Aboody et al. (2004) found a negative relation between stock option expense and share price, concluding that investors do indeed view stock option expense as a true expense of the firm. In supporting results, the authors also found a negative relation between returns and changes in the stock option expense. The authors concluded "This finding indicates that SFAS No. 123 expense reflects on a timely basis changes in investor-perceived costs associated with stock-based compensation." Accordingly, Aboody et al. (2004) support the inclusion of stock option expense in determining earnings, and serve as a motivation to further investigate whether financial analysts include or exclude the stock based compensation expense information in their forecasts of earnings.

Many areas of academic research also evaluate analysts' forecasting behavior. Specifically, such research looks at the inclusion or exclusion of accounting information in the forecasting of earnings for various types of companies. Baik et al. (2009) predicted that analysts are more likely to make income-increasing adjustment for "glamour stocks" vis-à-vis value stocks. Their findings supported this prediction, as they found that analysts are more likely to exclude expense items from Street earnings of glamour stocks. Barth et al. (2012) found that management's exclusion of stock option deductions from non-GAAP earnings was based upon opportunism (increase earnings, smooth earnings, and meet benchmarks) but not increased predictive abilities regarding future earnings.

On the other hand, Barth et al. found that analysts excluded stock option expense when the exclusion increased predictive abilities for future performance. Overall, the authors suggested

that analysts were wise in their decision to exclude stock option deductions: they did so in a fashion that increases the predictive ability. Through this research, we observed a concomitant need to better understand the usage of stock option compensation expense in the analyst's forecasts and their views of the usefulness of SFAS 123(R).

Another area of research examined the consequences of stock option expensing. Heltzer (2010) found that the expensing of stock options under SFAS 123(R) leads to an increase in overall financial statement conservatism, as it results in lower financial statement income. Heltzer assessed whether this increase in conservatism is conditional or unconditional, as different forms of conservatism have varying implications for the quality of earnings: conditional conservatism refers to the timelier recognition of economic losses (relative to gains) and unconditional conservatism refers to the reduction on income regardless of current period economic loss. Heltzer found that the implementation of SFAS 123(R) increases both conditional and unconditional conservatism.

Accordingly, this entire stream of research underscores the importance of understanding the impact of stock option compensation expense in earnings forecasts. Our research extends the current knowledge by identifying the ways that analysts use stock option compensation expense in their earnings forecasts. By directly studying analysts' perceptions and behaviors surrounding SFAS 123(R) related expenses, we hope to enhance this field of research.

3. RESEARCH METHODOLOGY

Our analysis uses original survey data. We developed our survey instrument to include 23 questions covering the following four areas: (1) demographic information, (2) stock option perspectives, (3) quarterly earnings forecasts and (4) other earnings forecasts. The demographic section included questions to obtain information on the survey participant's experience, such as the

number of years of experience and industry coverage. The stock option perspective section obtained information on the participant's views of the usage and reliability of stock option expensing information. The quarterly earnings forecast section requests information on the ways in which the analyst uses stock option expense information along with what influences their usage. Finally, the last section determines if the participant forecasts annual or long-term earnings. The participants did not have to answer every question in order to stay in our final survey participant list.[1]

We obtained 77 survey responses from using two different data collection sources. We first obtained financial analyst participants by purchasing a list of emails and mailing addresses from Lake Group Media (www.lakegroupmedia.com). Lake Group Media requires listings to be purchased in large numbers, which led to our acquiring 6,882 individuals to participate in our survey. These individuals either had the term "financial analyst" in their job title description or had CFA credentials.[2] Of our total 77 participants, 44 individuals from the Lake Group Media resource completed the survey.

We obtained another listing of financial analysts from the CFA Society of Chicago (http://www.cfachicago.org/). Specifically, in an attempt to isolate individuals likely to forecast earnings in their line of business, we obtained CFA members who

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[1] Since the participants did not have to answer all questions, we have a varying number of participants responding on each question provided in the survey instrument.

[2] The participant list from Lake Group provided us with some individuals that did not forecast earnings, as several individuals emailed and notified us that the survey they received was not relevant to their line of work. If the participant notified us that they did not perform financial analyst forecasting, we eliminated them from our participant list and response rate calculation. However, we were unable to determine which of the non-response participants did not respond due to lack of interest and/or time, and which participants did not respond since the survey did not relate to their line of work. This factor contributed to our low response rate from the Lake Group Media resource.

were involved in the following types of businesses: invest bank/broker dealer, hedge fund, institutional client investment manager, research firm, and public or union pension.[3] Through the CFA resource, 33 additional individuals participated in our survey, bringing our final sample size to 77 respondents.[4]

In terms of data collection methods, we used both electronic surveys and hard copied mail surveys. We used Qualtrics survey software (www.qualtrics.com) to originally contact 5,882 Lake Group Media participants. Of the original emails used, only 5,340 participants were left in our sample. This reduction in sample size is due to incorrect email addresses or the participant notified us that the survey did not apply to their experience. In anticipation of a potentially low response rate via email, we retained a listing of 1,000 participants from the Lake Group Media resource. Due to a less than 1% response rate through the Qualtrics online survey, we decided to send the surveys via mail to the remaining 1,000 participants. For the CFA Society of Chicago listing, we sent all the surveys via mail.

For the individuals in the Qualtrics online survey, we emailed two requests asking them to participate in our SFAS 123(R) survey. We also sent two requests via our mailed surveys

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[3] Several participants contacted us that the survey did not relate to their line of work, and these individuals were excluded from our response rate calculation.

[4] Previous survey literature has seen low numbers of participants from the financial analyst community. Several studies indicate that less than 100 analysts participated in their research analysis: Barker and Imam (2008) interviewed 35 sell-side analysts to investigate how the analysts interpret earnings quality, Orens and Lybaert (2010) had 31 survey participants in their analysis of Belgian sell-side analysts, and Webster and Ellis (1998) received 89 usable survey responses in their investigation of the effect of management's forecasted financial statements on analysts' confidence in their analysis of the financial condition of a firm. Several studies have had a larger response from the financial analyst community, including Berliner (1983), where 190 usable responses were obtained from financial analysts, and Block (1999), where 297 responses were used to investigate the analytical technique usage by AIMR financial analysts. We obtained 77 participants for our survey, which falls into the middle range of participants used in analyst studies.

to the 1,000 Lake Group Media participants and the Chicago CFA Society individuals. Survey responses were anonymous, preventing participants from feeling restricted when providing their firm's methodology or their personal risk assessment processes.

Table 1 provides details on the response rates for each survey participant resource. The highest response rate came from the Chicago Chapter of the Certified Financial Analyst Society, 17.4 percent, followed by 1.69 percent response rate from a mailing to 712 analysts from the media firm list, and then a 0.60 percent response rate from an email solicitation to 5,340 analysts from the media firm list.

Table 2 provides details of the individuals that we interviewed to obtain additional insight into financial analyst's views on stock option compensation expense. These individuals were asked similar questions to our survey instrument, including demographic information. The individuals' responses are discussed through section 4 of the paper.

4. RESULTS

Our results are categorized into four tables: (1) Demographic Information, (2) SFAS 123(R) Perceptions, (3) Stock Options and Earnings Forecasts, and (4) Impact of Management's Numbers on Earnings Forecasts.

4.1 Demographic Information

In Table 3, we provide demographic information on our survey participants. Of the seven types of firms listed in Question 1 in which the analysts were employed, the largest category was private money management (14.3 percent) followed by mutual funds (9.1 percent), and then brokerage and bank trust departments (tied at 5.2 percent each). In the area of investment recommendations listed in Question 2, the vast majority of the analysts (64.9 percent) were engaged in both buy and sell decisions. Question 3 asked the length of years of experience as an

analyst and over 80 percent had more than five years while more than 50 percent had more than 15 years. The next item (Question 4) listed 13 specific industries that the respondents covered and asked which commanded most of their time. Almost all of the respondents spent at least some time in most of the industries listed, with the exceptions of Government/Public Administration and Public Utilities. When asked what consumed up to 50 percent of their work in their analysis role, the industries most cited were Media and Entertainment (6), Technology (5), Manufacturing (4), Oil, Gas, and other Natural Resources, and Real Estate (tied at 3 each). Question 5 focused on the number of companies that the analysts followed and while over 22 percent covered only 1-3 industries, the majority (58.6 percent) followed 10 or more. Overall, our sample composition is well varied and diverse, leading to general applicability of our results.

4.2 SFAS 123(R) Perceptions

The first question in Table 4 asked the analysts if they favored the expensing of stock option compensation in GAAP earnings. Responses were measured on a scale of one ("No") through 10 ("Yes") with the middle of the scale, 5, representing "Indifferent." The mean (median) response was 6.61 (7.00). Viewed differently, 16.5 percent of respondents stated that they did not favor the expensing of stock option compensation, 20.9 percent indicated indifference and the majority (62.6 percent) responded that they did favor expense treatment. Those analysts who provided a rationale for excluding the stock option expense perceived that the options may not have a future value so they shouldn't be expensed immediately, and that there was no cash cost to the firm. Interviewee #1 (from Table 2) stated that they did not favor expensing stock options "because it is a non-cash charge and the potential added shares are adjusted for in the calculation of diluted earnings per share."

Interviewee #4 (from Table 2) stated "Yes [i.e., favors expensing], there is real economic cost to stock options and it can

be a substitute form of compensation to cash and other forms of compensation that are expensed. Although it does introduce a very small amount of volatility in earnings from stock price performance, the magnitude of this volatility is not large enough to warrant any change of the fundamental views of a company."

The other surveyed analysts who did offer an argument for including the expense often cited the Buffet quote mentioned earlier in the paper, and averred that it was a form of compensation and hence was a cost to the firm, using such adjectives as "real," "valid," or "legitimate" cost or expense to underscore their argument. One individual added that he/she appreciated the additional transparency the expense provided. Last, another respondent accentuated his/her position by stating "You can't give away stock for free."

Because one main criticism of the standard is the reliability of the fair value expense, our second question in Table 4 asked the analysts if they believe the SFAS 123(R) prescribed stock option expense number was reliable, using the same 10 point scale as above. The mean (median) response to this question was 5.22 (5.00), suggesting an overall indifference. Stated differently, 25.4 percent of respondents stated that it was not reliable, 31.3 percent were indifferent, and 43.2 percent deemed that it was reliable. Some of the opinions as to why they held that it was not a reliable number involved the fact that the number was an estimate, or involved problems with volatility assumptions or with the Black-Scholes option pricing model.

There were not many reasons offered for regarding the number as reliable. One individual succinctly asserted that the number is "Not perfect but we don't have anything else." In a separate interview of an experienced analyst (Interviewee #2, from Table 2), the analyst felt that the stock option compensation expense number was reliable sometimes, depending on how the company used the stock option expense and whether it was a recurring expense or a one-time charge. Another experienced analyst (Interviewee #3, from Table 2) responded that it was not a

reliable number. This individual understood the intent of the rule but felt that the expensing added confusion to the accounting. In addition, this analyst stated "I do not find it a useful indicator of future share price returns. However, I do pay a lot of attention to changes in diluted shares outstanding, and heavy stock option issuance is an inflator of shares outstanding. I generally penalize companies in my valuation and quality metrics if they aggressively grow shares outstanding."

In sum, the results in Table 4, Question 1, suggest that analysts do, in general, favor the required expensing of stock option compensation per SFAS 123(R). However, we additionally find in Table 4, Question 2 that analysts do not believe as strongly in the reliability of the current expense as determined per SFAS 123(R). These findings suggest that while the concept of expensing stock option compensation is generally accepted, regulators may want to revisit the methods by which the expense figure is determined.

4.3 Stock Options and Earnings Forecasts

The first question in Table 5 asked if the analysts included stock option expense in their quarterly earnings forecasts. A clear majority of the respondents (60.7 percent) stated that they did as opposed to 30.3 percent who did not, and 10.0 percent stated that they provide two forecasts (hereafter referred to as dual forecasts, with one including the option expense and the other excluding the number). Interviewee #4, from Table 2, stated why they included stock option expense in their forecasts: "Stock option compensation expense is part of general expenses that flow through most of the sell side models on the street and therefore is part of consensus. When we model companies, we want to get a sense as to how our view of the stock performance compares to street consensus estimates and therefore include stock option expense, though this is generally just trended as part of G&A."

In the case of annual forecasts, the percentage including the expense rose a little to 65.9 percent while those excluding it

decreased to 21.9 percent with 12.2 percent providing the dual forecasts. On a longer term horizon (one year or more), 61.9 percent included stock option expense, 28.6 percent excluded it and 9.5 percent submitted dual forecasts. Taking these results together, approximately two-thirds of forecasts included stock options compensation, and, as shown in Panel B of Table 5, this fraction, along with other fractions involving inclusions/exclusion of stock option compensation, did not vary significantly across forecast periods.

The results to Question 4 are interesting: 74.3 percent of the respondents stated that his/her employer does not require the inclusion of stock option expense in quarterly forecasts as opposed to 25.7 percent who do. Question 5 is related to Question 4, and although the number of responses is small (9), the analysts indicated that they unanimously agree with their employer's policy. For those employers that do not require the inclusion of stock option compensation expense, the reason most cited for the omission (of the specific reasons listed on the research instrument) were size of expense (7), use of stock options by the analyzed firm (4), and entity's size and industry (tied at 3).

Interviewee #1, from Table 2, stated that they "include or exclude (stock option compensation expense) according to what's in the consensus number, which is usually whatever the company highlights." Another interesting result involved the responses to Question 7: 74.2 percent of the analysts answered that they did not currently treat stock option expense differently versus before it was mandated in 1996. Since the clear majority of analysts use the number in their forecast calculations (Questions 1-3), this result implies that they viewed the number as important enough to enter it into their forecasts before it was promulgated as a generally accepted accounting principle.

The final question in Table 5 (No. 8) focused on what types of GAAP items the analysts omitted in their quarterly forecasts. The most often cited involved non-recurring gains (21) and losses (20), followed by income from discontinued operations (20),

cumulative effects of accounting changes (15), and amortization (7). These results show that our respondents do indeed take the time to adjust GAAP income when forecasting earnings, and therefore their inclusion of stock option compensation in forecasts in Table 5, Questions 1 – 3, is more prominent.

4.4 Impact of Management's Numbers on Earnings Forecasts

The final data analysis section (Table 6) involves two questions which deal with the effects of certain management actions on quarterly forecasts. Question 1 concerns the situation in which management releases a non-GAAP quarterly earnings announcement that does not include employee stock option expense and the resulting impact, if any, on the analysts' forecasts. Specifically, we asked whether analysts will exclude stock option expense from their forecasts given that management excludes such an expense.

Responses were measured on a scale of one ("No Impact") through 10 ("Will definitely exclude") with the middle of the scale, 5, representing "May exclude." The average (median) response was 3.31 (1.00), showing that analysts are not, in general, basing their forecasts on management's forecasting methods. Stated differently, the majority of the analysts (62.1 percent) indicated that it would have no impact, while 10.3 percent maintained that they might exclude it, and another 20.6 percent would tend to disregard it, as compared to 6.9 percent who would definitely leave out the number in their forecasts. Interviewee #2, from Table 2, stated that if management excludes stock option expense in their earnings release, then they are more likely to exclude the stock options as well.

Question 2 established the scenario where a firm meets/beats an earnings threshold in part because its non-GAAP earnings release excluded stock option compensation in the calculation. The question then asked what impact this would have on the analyst's quarterly forecast (i.e., include or exclude the expense). Using the same 10 point scale as above, the mean

(median) response was 1.93 (1.00), again demonstrating that analysts, in general, treat stock option expense as a true expense of the firm, and are not subject to management's manipulation tactics. Stated differently, approximately 79 percent of the analysts surveyed declared that it would have no bearing and only 3.6 percent stated that they would definitely exclude the expense.

5. CONCLUSIONS

A review of our findings indicates that our respondents cover a wide range of industries, are very experienced, and engage in both the buy and sell sides of analysis. The majority of our respondents believe that employee stock option expense calculated in accordance with SFAS 123(R) should be included in the calculation of GAAP earnings, and also that it represents a reliable number. In addition, almost two-thirds favored the inclusion of employee stock option expense in their quarterly, annual, and longer horizon forecasts, arguing that the number is a "real" cost to the firm. Perhaps surprisingly, almost three-quarters of the respondents said that they did not treat this expense number any differently at the present time as opposed to before it was mandated in 1996.

They further indicated that the vast majority of their employers did not require the option expense number to be entered into their forecasts, and that various characteristics of the firm, the industry, the expense, and other variables influenced their decision to include/exclude the expense in their forecasts. Last, the analysts asserted that they were not influenced to add or omit the employee stock option cost in their forecasts as a result of management's exclusion of the expense in non-GAAP earnings releases, even if the omission enabled the firm to meet a target earnings goal.

The findings herein are important as they further our understanding of how a controversial standard, SFAS 123(R), is used in practice. In doing so, this paper adds to the current academic literature involving stock option expense and analyst

behaviors. Notably, the overwhelming support by analysts for including stock based compensation in earnings, coupled with their inclusion of such expense in their short and long term earnings forecasts based upon their own judgment (as opposed to employer mandated), suggests that stock based compensation is indeed viewed as a meaningful expense, thereby supporting Aboody et al.'s finding that stock option compensation is viewed as a true cost to the firm.

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TABLE 1
SURVEY RESPONSE RATE

Source	Method	Number of Participants Contacted	Rate
Lake Group Media – Analyst Listing	Email	5,340	0.60%
Lake Group Media – Analyst Listing	Mail	712	1.69%
Certified Financial Analyst Society – Chicago	Mail	191	17.28%

TABLE 2
INTERVIEW PARTICIPANT DEMOGRAPHICS

Participant	Type of Organization	Years of Experience	Industries covered
Interviewee #1	Mutual Fund	45 years	Drugs, Chemicals, Health
Interviewee #2	Hedge Fund	15 years	Tech, Media, Telecom, Industrial, etc.
Interviewee #3	Institutional Asset Manager	13 years	All US Sectors
Interviewee #4	Hedge Fund	6 years	Financial Services
Interviewee #5	Hedge Fund	7 years	Media, Telecom, Cable

TABLE 3
DEMOGRAPHIC INFORMATION

Question 1: Please indicate what type of company in which you work:

	Number of responses	Percentage
Brokerage	4	5.2%
Private money management group	11	14.3%
Investment management counseling	2	2.6%
Mutual fund	7	9.1%
Bank trust department	4	5.2%
Investment banking	2	2.6%
Pension fund	1	1.3%
Other	46	59.7%
Total	77	

Question 2: What type of investment recommendations do you make?

	Number of responses	Percentage
Buy	4	5.4%
Sell	1	1.4%
Both (both buy and sell)	48	64.9%
Other	21	28.4%
Total	74	

TABLE 3 (Continued)

Question 3: How many years of experience do you have as a financial analyst?

	Number of responses	Percentage
0-5	14	19.2%
6-10	13	17.8%
11-15	9	12.3%
16-20	8	11.0%
21-25	7	9.6%
26-30	9	12.3%
More than 30	13	17.8%
Total	73	

Question 4: What percentage of your time is spent analyzing the following industries? (participants can check more than one box)

	Number of responses per category			
	1-25%	26-50%	51-75%	76-100%
Banking	19	2	1	1
Government/Public Administration	10	1	1	0
Healthcare	17	1	3	2
Hospitality/Tourism	15	2	0	1
Insurance	19	1	2	2
Manufacturing	19	4	4	2
Media and Entertainment	18	6	0	0
Oil, Gas and other Natural Resources	15	3	1	0
Public Utilities	14	0	0	0
Real Estate	16	3	1	0
Retail Trade	18	2	1	1
Technology	17	5	3	3
Transportation	18	0	2	1
Other	4	3	2	3

TABLE 3 (Continued)

Question 5: How many companies do you follow at a time?

	Number of responses	Percentage
1-3	13	22.4%
4-6	6	10.3%
7-9	5	8.6%
10 or more	34	58.6%
Total	58	

TABLE 4
SRAS 123(R) PERCEPTIONS

Question 1: SFAS 123(R) requires expensing of stock option compensation in the calculation of financial statement GAAP earnings. In general, do you favor the expensing of stock option compensation of GAAP earnings?

	Number of responses	Percentage
No: 1	6	9.0%
2	1	1.5%
3	1	1.5%
4	3	4.5%
Indifferent: 5	14	20.9%
6	2	3.0%
7	7	10.4%
8	8	11.9%
Yes: 9	25	37.3%
Total	67	
Average	6.61[5]	
Median	7.00	

[5] *The average of the responses for Question 1 is significantly different than 5.0 at the 99% level with a t-statistic of 5.11.*

TABLE 4 (Continued)

Question 2: In general, do you believe that stock option compensation expense in GAAP (per SFAS 123(R)) is a reliable number?

	Number of responses	**Percentage**
No: 1	9	13.4%
2	1	1.5%
3	3	4.5%
4	4	6.0%
Indifferent: 5	21	31.3%
6	11	16.4%
7	8	11.9%
8	3	4.5%
Yes: 9	7	10.4%
Total	67	
Average	5.22[6]	
Median	5.00	

[6] *The average for the responses for question 2 is not significantly different than 5.0 with a t-statistic of 0.80.*

TABLE 5
STOCK OPTIONS AND EARNINGS FORECASTS

Panel A:

The following information provides the responses and percentage for each response to Stock Options and Earnings Forecasting section of the survey.

Question 1: When forecasting quarterly earnings do you predominantly (only allowed selecting one option):

	Number of responses	**Percentage**
Include stock option expense	20	60.7%
Exclude stock option expense	10	30.3%
Provide two forecasts, one which includes stock option compensation expense and another that excludes stock option compensation expense	3	10.0%
Total	33	

Question 2: When forecasting annual earnings do you predominantly (only allowed selecting one option):

	Number of responses	**Percentage**
Include stock option expense	27	65.9%
Exclude stock option expense	9	21.9%
Provide two forecasts, one which includes stock option compensation expense and another that excludes stock option compensation expense	5	12.2%
Total	41	

TABLE 5 (Continued)

Question 3: When forecasting long-term earnings (greater than 1 year) do you predominantly (only allowed to select one option):

	Number of responses	Percentage
Include stock option expense	26	61.9%
Exclude stock option expense	12	28.6%
Provide two forecasts, one which includes stock option compensation expense and another that excludes stock option compensation expense	4	9.5%
Total	42	

Question 4: Does your employer require your treatment of stock option compensation expense in quarterly earnings forecasts?

	Number of responses	Percentage
Yes	9	25.7%
No	26	74.3%
Total	35	

TABLE 5 (Continued)

Question 5: If your employer requires your treatment of stock options compensation expense, do you agree with your employer's policy?

Potential Response	Number of responses
Yes	9
No	0
Total	9

Question 6: If your employer does not require your treatment of stock options compensation expense, what influences your decision to include or exclude stock option compensation expense from your quarterly earnings forecasts?

	Number of responses
Size of firm being analyzed	3
Industry of the firm being analyzed	3
Use of stock options by the firm being analyzed	4
Size of stock option compensation expense by the firm being analyzed	7
Client Preference	0
Other	9

TABLE 5 (Continued)

Question 7: Prior to the adoption of SFAS 123(R) in 1996, did you treat the stock option compensation expense differently?

	Number of responses	Percentage
Yes	8	25.8%
No	23	74.2%

Question 8: When forecasting quarterly earnings, do you typically exclude any of the following from GAAP earnings (allowed to check all that apply)?

Number of individuals answering questions: 27

	Number of responses
Depreciation	2
Amortization	7
Interest expense	2
Interest revenue	2
Income taxes	3
Non-recurring gains	21
Non-recurring losses	20
Income from discontinued operations	20
Cumulative effects of accounting changes	15
Other	4

TABLE 5 (Continued)

Panel B:

The following information provides the statistical differences between participants' responses to Questions 1, 2, and 3 on Stock Options and Earnings Forecasts. Each question asks whether the participant forecasts quarterly (Q1), annual (Q2) and long-term (Q3) earnings. In their forecast we ask whether they include, exclude, or both include and exclude the stock option compensation expense. Using a 0,1 identifier for each response, the mean statistical difference between the numbers that include, exclude or both include and exclude was determined. *, **, and *** denote significance at the 90%, 95% and 99% levels, respectively.

Question 1 (quarterly forecasting) vs. Question 2 (annual forecasting)

	Q1		Q2			
	N	Mean	N	Mean	Difference of Means	T-Stat
Include	33	0.61	41	0.66	-0.05	-0.46
Exclude	33	0.30	41	0.22	0.08	0.81
Both	33	0.09	41	0.12	-0.03	-0.42

Question 1 (quarterly forecasting) vs. Question 3 (long-term forecasting)

	Q1		Q3			
	N	Mean	N	Mean	Difference of Means	T-Stat
Include	33	0.61	42	0.62	-0.03	-0.11
Exclude	33	0.30	42	0.29	0.01	0.16
Both	33	0.09	42	0.10	-0.01	-0.06

TABLE 5 (Continued)
Question 2 (annual forecasting) vs. Question 3 (long-term forecasting)

	Q2		Q3			
	N	Mean	N	Mean	Difference of Means	T-Stat
Include	41	0.66	42	0.62	0.04	0.37
Exclude	41	0.22	42	0.29	-0.07	-0.69
Both	41	0.12	42	0.10	0.02	0.39

TABLE 6
IMPACT OF MANAGEMENT'S NUMBERS ON EARNINGS FORECAST

Question 1: Assume that management makes a quarterly earnings announcement that excludes stock option expense from non-GAAP earnings. How does this impact your decision to include or exclude stock option expense from your quarterly earnings forecast?

	Number of responses	**Percentage**
No Impact: 1	18	62.1%
2	0	0.0%
3	0	0.0%
4	0	0.0%
May exclude it: 5	3	10.3%
6	2	6.9%
7	1	3.4%
8	3	10.3%
Will definitely exclude it: 9	2	6.9%
Total	29	
Average	3.24[7]	
Median	1.00	

[7] *The average of the responses for Question 1 is significantly different than 5.0 at the 99% level with a t-statistic of -3.09.*

TABLE 6 (Continued)

Question 2: Further assume that management's exclusion of stock option compensation expense from non-GAAP quarterly earnings causes the firm to meet/beat a certain earnings threshold. How does this impact your decision to include or exclude stock option compensation expense from your forecast of quarterly earnings?

	Number of responses	**Percentage**
No Impact: 1	22	78.6%
2	1	3.6%
3	0	0.0%
4	0	0.0%
May exclude it: 5	3	10.7%
6	1	3.6%
7	0	0.0%
8	0	0.0%
Will definitely exclude it: 9	1	3.6%
Total	28	
Average	1.93[8]	
Median	1.00	

[8] *The average of the responses for Question 2 is significantly different than 5.0 at the 99% level with a t-statistic of -7.91.*