

It's Showtime! Conference Call Participation and Analysts' Career Outcomes

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Abstract

Analysts who participate in earnings conference calls and get to ask the first questions are likely to enjoy special access to management. We argue that such access could either signal connectivity to management, or analyst stature/reputation recognized by management. We examine sell-side analysts' labor market performance in brokerage closure events, and find that analysts' prior early call participation predicts more successful and speedy job search. We find evidence that early participation reflects both connectivity to management and industry-specific skills: sell-side employers value both but buy-side employers do not seem to value connectivity to management of a particular stock. Consistent with the connectivity interpretation, we find that early call participants engage in greater strategic distortion between earnings forecasts and recommendations, and this is exacerbated when there is less institutional ownership.

JEL Classification: G23; G24; J40

Keywords: Career outcomes; Analyst forecasts and recommendations; Earnings Conference Calls

1. Introduction

Earnings conference calls are routine events for most U.S. companies. In the post-Regulation FD period, such conference calls have become one of the primary avenues through which corporate managers convey information to analysts. There is debate, however, as to how useful conference calls are as a source of firm-specific information. While academic literature generally finds some evidence consistent with information production, others have expressed scepticism, arguing that the Q&A session of the calls have become a stage where participants – especially the sell-side analysts – try to advertise themselves and attract the attention of investors, brokerages or corporates who could offer future employment.¹

In this paper, we build on the idea that call participation itself can be informative – call participation matters for sell-side analysts and their prospective employers since they signal the analyst’s access to company management. Who gets a chance to speak in the Q&A session of a call, and how early in the call the person receives a chance to speak, is controlled by the company.² Consequently, call participation, and especially early participation, signals either connectivity to management which could form the basis of a mutually beneficial quid-pro-quo, or some dimension of analyst skill or reputation that management recognizes.

To examine whether analysts’ employers value connectivity to management or some dimension of skill or reputation that early call attendance reflects, we focus on sell-side analysts’ labor market outcomes subsequent to being laid off due to the closure of their brokerages. We use brokerage fixed effects to mitigate concern that participation and labor market performance are driven by brokerage characteristics. Our firm access measure, *early attend*, utilizes the order by which analysts are called upon to ask questions. An analyst is

¹ The practice of congratulating managers on a “great quarter” has been widely documented. Armstrong (2015) contends this is to improve access with management, while Davies (2014) suggests analysts using calls to audition for other jobs.

² There is both anecdotal evidence (Mayo, 2011) and academic research (Mayew, 2005) that suggests that firms control access during a conference call as a tool for rewarding analysts providing favorable coverage.

defined as an early participant if she is either the first or second call participant to ask a question. We argue that *early attend* is likely to capture either connectivity to management or aspects of analyst ability not captured by existing measures in the analyst literature. One important advantage of this measure is that while other analyst-specific skill or performance measures such as forecast accuracy or stock coverage could be potentially endogenous to the possibility of a job separation, this appears unlikely for early participation, which is controlled by the company management (and measured at least one year prior to the closure-induced departure).³ Further, the use of brokerage fixed effects in linear models and the fact that the broker closures allow us to isolate an *analyst-specific* connectivity measure and examine whether this matters for analysts' subsequent job outcomes. This is an important advantage because it is typically difficult to isolate analyst-specific connectivity from brokerage-specific connectivity to management.⁴

Our empirical results support the idea that connections to management matter, and also that early conference call participation indicates a dimension of analyst skill, including industry-specific skill, that is not explained by observable measures such as the breadth of stock coverage, forecast accuracy, or experience. Moreover, sell-side employers value connections with management more than do buy side employers. Both sides also appear to value some component of analyst reputation or skill, including industry-specific skill.

To establish these effects, we first examine whether after being laid off due the closure of their brokerages, analysts are more likely to find a subsequent job within one year if they had been an early participant or had been an early participant in a large number of calls

³ Of course, if analysts anticipate the closure more than one year ahead, they could get busy looking for alternative employment and stop attending conference calls. However, the time cost of attending a conference call is trivial, especially when weighed against the benefit of early participation for an analyst who has access to management.

⁴ One approach to finding analyst-specific links to firms is via "revolving doors". Lourie (2014) finds that analysts who went to work for a firm they covered were more likely to have higher price targets on that stock, be more pessimistic about its competitors and have written more reports on that firm than other analysts, in the year before changing jobs. Cornaggia, Cornaggia and Xia (2015) document that credit analysts who find subsequent jobs in the firms they rate, inflate ratings relative to non-transitioning analysts prior to joining the firm.

within a one-year period prior to their departure from the brokerage. We find that this is the case, especially for “finance” (buy-side or sell-side) jobs. We also find that the duration of unemployment is negatively related to previous early conference call participation. When we examine sell-side versus buy-side jobs, we find that while previous early participation matters for finding both types of jobs (relative to not finding any job), it matters more for sell-side jobs than for buy-side jobs. This result is consistent with the view that access to management is more valuable for sell-side business—for example, in terms of generating investment banking business. In a similar vein, when we examine whether the likelihood of being an early attendee in the conference call for a particular stock after the closure of the brokerage is higher if the analyst was an early attendee prior to the closure, we find significant effects only for analysts that end up with sell-side jobs. This result suggests that a firm-specific managerial connection is valuable for the sell-side, but not for the buy side, who are more likely to recruit analysts on the basis of their industry expertise.

Sell-side analysts have the delicate task of serving two masters – the firms they cover by issuing research reports, and investors – mostly represented by buy-side financial institutions – who rely on their research output and knowledge of the firms they cover for investment ideas. The academic literature has largely focused on the slanting of research to attract investment banking business from corporate clients (Lin and McNichols, 1998; Michaely and Womack, 1999; Ljungqvist, Marston and Wilhelm, 2006), a practice that has come under scrutiny of regulators. There is evidence that institutional investors have a moderating effect on analyst opinions (Jackson, 2005; Ljungqvist, Marston, Starks, Wei and Yang, 2007). Malmendier and Shantikumar (2014) introduce the notion of “strategic distortion” – distortion of stock recommendations that are aimed at pleasing management, as opposed to reflecting genuine optimism. They find that analysts from brokerages with closer investment banking ties with a firm distort strategically in the sense that while they issue

optimistic stock recommendations, they are less optimistic in their earnings forecasts. As the large investors can correct for these distortions, optimistic recommendations only affect small investors; however, less optimistic earnings forecasts protect their reputations with large investors and also enable management to “meet or beat” consensus forecasts. We find that early participants in conference calls are more likely to distort strategically, consistent with these analysts having closer ties with management, and these effects are stronger for firms with lower institutional ownership.

Finally, to further understand whether early participation primarily reflects connections with management or some component of skill, we examine which stocks the new sell-side employers assign analysts to cover. While we find that previous coverage of a stock by an analyst does matter, even after controlling for previous coverage, prior early participation of a conference call of the particular stock, or that of a stock in the same industry, significantly increases the likelihood of being assigned to cover the stock. The fact that early participation of a conference call for a stock in the same industry matters suggests the importance of industry-specific skill. We also examine whether an analyst is more likely to be assigned to cover a stock that is already covered by the new brokerage or one that is newly covered, relative to not being assigned to cover a stock. Once again, even after controlling for previous coverage, early participation of a stock significantly increases the likelihood of assignment of both types, as does the early participation of any stock in the same industry. Interestingly, while early participation of a particular stock does not affect the relative likelihood of assignment between newly covered stocks and those already covered, industry experience makes new coverage more likely.

Our paper makes several contributions. First, since analyst compensation data are not readily available for large sample studies, it is difficult to directly test which types of

attributes or roles matter for analysts and their employers.⁵ We focus on labor market outcomes as a way investigating this issue. In the absence of compensation information, labor market outcomes give us the best insight on analysts' economic incentives. In the most detailed study of analyst job movements to date, Hong and Kubik (2003) show that perceived expertise in stock picking results in favourable outcomes in the form a move to a larger brokerage when the analyst changes employers. We add to this literature by focusing additional labor market outcome variables such as the likelihood of subsequent employment, the type of employment, and the duration of unemployment. Second, we focus on a previously unexplored *observable* analyst attribute, namely, early participation in earnings conference calls, and show that this captures both analysts' connectivity to management as well as analysts' "stature", or a dimension of skill that includes industry-specific skill and is not reflected in other observable analyst-specific attributes. Our measure of connectivity is different from other measures of connectivity used in the literature since it is analyst-specific and endures even after the closure of the brokerages. These results are very consistent with the survey evidence in Brown, Call, Clement, and Sharp (2015) who report that analysts regard their industry knowledge as the most important determinant of their performance ability and strong relationships with management (including personal phone calls). Third, we show that the buy side is less interested in cultivation ties with management and in their presence, sell-side analysts are less likely to engage in strategic distortion.

The structure of the paper is as follows. In Section 2, we describe our data and present some basic facts on career outcomes of analysts affected by brokerage closures. The role of conference call participation in finding a new job is the focus of Section 3. In Section 4, we study how early participants differ from their peers in terms of connectivity and skills and

⁵ Using data from a single brokerage house, Groyberg, Healy and Maber (2011, 2014) show that analysts rated highly by the buy-side (through broker votes) have a higher compensation, but forecast accuracy plays no role. This result is also echoed in the survey of analysts by Brown, Call, Clement and Sharp (2015).

how these characteristics affect coverage decisions of the analyst's new employer. Section 5 concludes.

2. Data and Summary Statistics

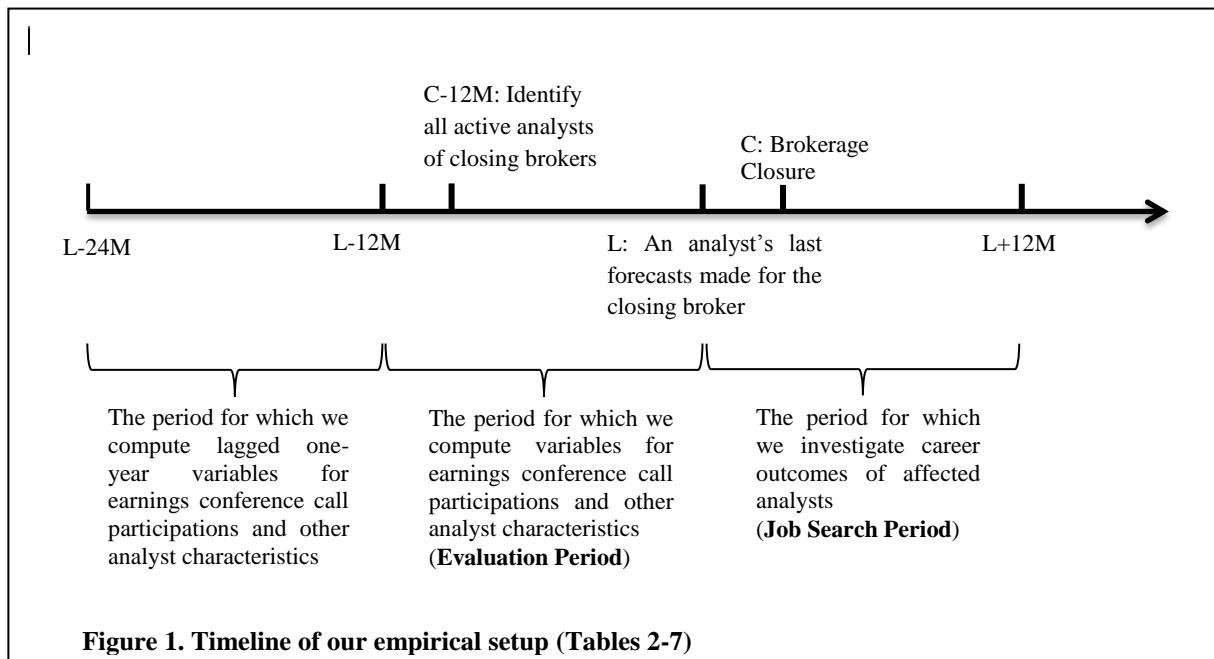
2.1. Data Sources

Our study relies on three datasets – a list of brokerage closures, analyst participation in earnings conference calls around brokerage closures, and their career outcomes after brokerage closures. We retrieve information on analyst attendance from earnings conference calls transcripts. They are obtained from StreetEvents which has transcripts for earnings conference calls, investment bank hosted analyst conferences and conference calls for corporate events (e.g., mergers, capital raisings). Since earnings conference calls are most frequent in the dataset and they are more comparable than other types of conference calls, we only focus on participation in earnings conference calls. Also, given sparse coverage and inconsistent formatting of files in the early years of StreetEvents (see Mayew, 2008), our sample of earning conference calls covers the sample period from 2003 to 2013.

To investigate the causal impact of participation in earnings conference calls on future career outcomes, our research design requires that an analyst lose her job for exogenous reasons that are uncorrelated with her performance. Since a voluntary change in a job is likely driven by analyst-specific characteristics (e.g., an analyst can be either headhunted because of a good performance or fired because of a bad performance) that simultaneously affect the participation of earnings conference calls, we only focus on brokerage closures where all affiliated analysts are laid off at closures or forced to find new jobs before closures.

We identify brokers that stopped releasing analyst forecasts between 2003 and 2012 using the I/B/E/S Stopped Estimation File. To ensure the possibility that the brokerage closures are not driven by the poor performance of their analysts, we manually search

Bloomberg Businessweek, Factiva, S&P Capital IQ and the FINRA broker check database for to verify that most closures are driven by the poor performance of investment banking divisions and big losses in proprietary trading. We identify 71 broker closures and the complete list of closures is presented in Appendix I.



Brokerage closures can be anticipated, at least within a short time horizon. Such anticipation may change analysts’ behaviours and, therefore, focusing on analysts who still remain in these brokers immediately before their closures may potentially bias our analysis. To avoid such anticipation bias, we identify all 500 analysts who were still active (i.e., those who make active forecasts and recommendations in the I/B/E/S database) one year before the corresponding brokerage closures (i.e., C-12M in Figure 1). The job turnovers of these 500 analysts lead to the termination of 2,703 analyst-firm coverage relationships. We name these analysts “affected analysts” throughout our paper.

[Insert Table 1 Here]

To identify where analysts land after losing their jobs, we search their career profiles in LinkedIn, S&P Capital IQ analyst database and other professional career websites, such as

Zoominfo and BrightScope, to gather employment information for affected analysts. For those analysts who find sell-side jobs later, we confirm their new employment by the reappearance of their forecasts in the I/B/E/S Detailed File. Since we aim to establish causal relationship between prior call participation and job prospects after brokerage closure, we only consider new job outcomes that occur in a reasonably short time after the job turnover driven by brokerage closures. Therefore, we only consider the first jobs that affected analysts find within a twelve-month period after their last forecasts for the closing brokers (i.e., L+12M in Figure 1). If an analyst finds the first job later than this cut-off or the analyst retires, she will still be classified as “no jobs” in our sample. For those who find jobs before the one-year cutoff, detailed descriptions of the new job from career websites allow us to classify all new jobs into four categories: sell-side financial jobs (e.g., a sell-side analyst), buy-side financial jobs (e.g., a hedge fund manager), corporate jobs (e.g., the CFO of a corporation), and other jobs (e.g., a government officer or a university faculty). Panel A of Table 1 shows that of the 500 affected analysts, 329 continue their careers at other sell-side firms, 84 move to buy-side financial institutions, 26 have new corporate jobs and 7 work for other organizations such as government agencies or universities. 54 analysts remain unemployed one year after their last forecasts for closing brokers.

In addition to these three major data sources detailed above, information of analyst forecasts and recommendations is retrieved from I/B/E/S. Stock trading information, such as stock returns, is obtained from CRSP and information of firm financial characteristics is from Compustat.

2.2 Sample Characteristics

In Panel B of Table 1, we present summary statistics for the 500 analysts affected by broker closures. This dataset is organized at the analyst level and pertain to results tabulated in Tables 2-6. Figure 1 illustrates our empirical setup for this dataset: while we identify new

jobs of affected analysts for the period between L (i.e., last forecast for the closing broker) and L+12M (i.e., 12 months after L), all other variables, including those capturing earnings conference call participation and other analyst characteristics, are computed for the period between L-12M (i.e., 12 months before L) and L. In our following analyses, we name (L-12M, L) the “evaluation period” and (L, L+12M) the “job search period”.

The analyst who is either the first or the second person to ask questions in the earnings call is classified as an early participant, all others are late participants.⁶ Summary statistics suggest that, on average, affected analysts attend earnings conference calls 3 times (*Num Early Attend*) as an early participant and 8.8 times (*Num Late Attend*) as a late participant in the twelve-month evaluation period. This translates to an average attendance of three conference calls per quarter. Given an average analyst in our sample covers 6.8 firms that hold quarterly earnings calls, she is able to attend 44% of the potential sample of calls. In aggregate, 62.4% of affected analysts have been early participant in at least one earnings call in the evaluation period. This aspect of participation is captured by the *Early Attend Dummy*.

We also compute standard analyst characteristics following Hong and Kacperczyk (2010) as control variables for the evaluation period. These variables include *Breadth* (i.e., the number of stocks an analyst covers), *Optimism* (i.e., the difference between forecasted and actual earnings scaled by lagged price),⁷ *Seniority* (i.e., the number of years since the analyst first started providing EPS forecasts to I/B/E/S) and *Broker Size* (i.e., the number of analysts employed by the broker).

In Panel C, we present the summary statistics for the sample covering all analyst-call pairs where the analysts cover the firms that hold quarterly earnings conference calls. Results in Tables 8 and 9 are based on this sample. In contrast to *Early Attend (Late Attend) Dummy* reported in Panel B, *Early Attend Dummy (t) (Late Attend Dummy (t))* reflects an analyst’s

⁶ Alternative definitions of early participation such as being the analyst who asks the first question or being one of the first three analysts to ask questions, does not affect our results.

⁷ In untabulated results, we find that replacing *Optimism* by absolute forecast bias does not affect our findings.

early (late) participation in an earnings conference call for quarter t . *Forecast Accuracy Rank*, *Forecast Optimism Rank*, and *Recommendation Optimism Rank*, are computed as in Hong and Kubik (2003). They capture relative forecast accuracy, forecast optimism and recommendation optimism for the quarter $t+1$ (i.e., the quarter after the earnings conference call) respectively. Other control variables including *Breadth*, *Optimism*, *Seniority* and *Broker Size* reflect analyst characteristics corresponding to the quarter $t-1$ (i.e., the quarter before the earnings conference call). A comparison between brokers in the closure sample and rest of the I/B/E/S sample shows that closed brokers have fewer analysts than an average broker in I/B/E/S. Also, affected analysts are more junior and cover fewer stocks than an average analyst in I/B/E/S. However, we do not find that forecasts of affected analysts are significantly more optimistic or less accurate than the average analyst. Detailed definition of all variables reported in Panel B and Panel C of Table 1 are provided in Appendix II.

3. Conference Call Participation and Analysts' Career Outcomes

3.1 Main Results

3.1.1 Conference Call Participation and the Likelihood of Re-employment

We use linear probability and logit models to investigate whether analyst participation of earnings conference calls in the evaluation period affect their likelihood of getting a job in the job search period (see Figure 1). In linear probability models, we control for broker closure event fixed effects, to ensure our results are not driven by variations in broker characteristics across different closures. This fixed effect allows us to interpret our results as a comparison between analysts with different conference call participation experience within the same broker closure event. We do not incorporate closure fixed effects in nonlinear logit models to avoid biased coefficient estimates (Greene, 2004). Instead, we control for broker size, which is likely to be the most important broker characteristic to affect our results. The

dependent variable in Columns (1) and (3), *Any Job*, is a dummy variable that is one if an affected analyst finds a job within the job search period. The dependent variable in Columns (2) and (4), *Finance Job*, is a dummy variable that equals one if an affected analyst can find either a sell-side or a buy-side job in the finance industry. As shown in Panel A of Table 1, 89.2% of affected analysts finds a new job and 82.6% of those a job with finance firms in the job search period.

[Insert Table 2 Here]

Our results suggest that active participation in earnings conference calls is associated with a higher likelihood of being employed again. This result is particularly strong for early participants. The results in Column (1) of Table 2 suggest that, if an analyst is the first or the second person to ask a question in at least one conference call in the evaluation period, the probability of finding a job in the job search period is 13.1 percentage points higher than that of peers who did not participate in any earnings conference call. This effect is statistically significant at the 1% level and the economic magnitude is meaningful given the average likelihood of being employed in the job search period is 89.2%. The effect is much weaker when the analyst participates in conference calls but is never an early participant (i.e. 8.6% higher likelihood of finding a job relative to analysts who did not participate). The differential effect between early participants and late participants, i.e., 4.5 percentage points in the likelihood of getting new jobs in the job search period, is statistically significant at the 5% level.

The impact of early participation on the likelihood of finding a job in the finance industry is even more pronounced. The differential effect between an early and a late participant is as large as 12 percent. Our results from logit models, where we remove closure fixed effects but control for broker size, are similar to those from the linear probability model. Further, our results are unaffected when we replace dummy participation variables by

continuous participation variables, i.e., $\text{Log}(1+\text{Num Early Attend})$ and $\text{Log}(1+\text{Num Late Attend})$, in Panel B of Table 2. Among control variables that have significant impact on analyst career, *Breadth* and *Broker Size* are positively associated with successful job search, while *Optimism* has a negative effect. These results suggest that firms are more willing to hire analysts that previously covered more stocks, worked for larger brokers and were less optimistic in their forecasts.

As mentioned earlier, a potential concern with the above analyses is that the broker closure is not unexpected. When this happens, the analyst's incentive of finding a new job may affect their forecast and call participation behavior, which introduces endogeneity concerns to our research setting. To address this issue, we lag our participation measures by one more year, i.e., to reflect the information for the period (L-24M, L-12M) as shown in Figure 1. The results, presented in Appendix III, are very similar.

In Table 3, we incorporate characteristics of analyst-firm connections by including the following two additional variables. The first is defined as the number of firms where an analyst participates in their earnings conference calls scaled by the number of firms the analyst covers. It captures the "breadth" of connections with covered firms. The second measure is the average size of firms where the analyst is a call participant scaled by the average size of the firms that she covers. This measure favors connections with larger firms that attract more media coverage and buy-side attention and, therefore, captures the "quality" or "depth" of connections. Our results in Table 3 suggest that both the "breadth" and the "depth" of analyst-firm connections affect analysts' likelihood of getting new jobs in the job search period.

[Insert Table 3 Here]

The positive association between earnings conference call participation in the evaluation period and the likelihood of finding a new job in the job search period is consistent

with several interpretations, including: 1) diligent analysts are more likely to find a job; and 2) early call participants attract attention of prospective employers and therefore are more likely to be re-employed. Given that we incorporate both early and late participation in our specification, it is unlikely that our results in Tables 2 and 3 are driven by the “diligence” of analysts as early and late participants display the same level of diligence in attending earnings conference calls. Further, the results in Appendix III, in addition to mitigating concern about anticipated closures mentioned above, does not support the “attention” story either. If the attention is the main driver of our results, we would expect a much weaker effect based on lagged participation variables.

3.1.2 Persistence in Early Participation

In this subsection, we examine the persistence of early participation in earnings conference calls. If early participation represents the strength of networks with management, we would expect persistence of early participation when the new employer is a sell-side employer. However, we do not necessarily expect the analyst to attend the conference calls of the same firm if the new employer is a buy-side employer, because even if the employer values connectivity with the firm, there is limited scope for the analyst to return a favor without compromising the interests of the buy-side employer.⁸ It is also possible that connectivity to an individual firm’s management is more important for the sell-side where analysts typically cover a fixed set of stocks and cultivate relationships with a fixed set of firms, than for the buy-side financial institution where portfolio managers enjoy much larger freedom in picking stocks to form investment portfolios. We test the persistence of early participation around broker closure by using firm-specific and industry-level early participation in the evaluation period to predict early participation at their new jobs. In this

⁸ It is possible, however, that through early participation, an analyst can set a friendly tone of the Q&A session of the call which is beneficial to the firm.

test, we partition our sample based on whether the affected analyst joins a sell-side or a buy-side firm after the job turnover.

[Insert Table 4 Here]

Table 4 presents the results for tests around brokerage closure events. For the tests reported in columns (1) and (3), we pair affected analysts that find sell-side jobs with all earnings conference calls held one year after they find new jobs. Similarly, for the tests reported in columns (2) and (4), we pair all affected analysts that find buy-side jobs with all earnings conference calls held within the job search period. The dependent variable, *Early Attendance*, is a dummy variable that equals one if a sell-side analyst or a buy-side analyst is an early participant in the earnings conference call for firm i after the move, and zero otherwise. By organizing our data in this manner, we implicitly assume that a sell-side or buy-side analyst has some chance of attending any earnings conference calls. For a sell-side analyst, we control for whether the new employer (e.g., a brokerage firm) covers the stock of firm that holds the earnings conference call. We also control for investment banking relationships (Clarke, Khorana, Patel, and Rau, 2007), i.e., whether the broker is involved in the firm's initial public offering, recent seasoned equity offerings, or acted as a financial advisor in recent M&A transactions for the firm that holds the earnings conference call. For a buy-side analyst, we control for whether the new employer (e.g., a mutual fund or a hedge fund) currently holds the stock of firm that holds the earnings conference call.

Results in Table 4 suggest that early participation is persistent when affected analysts find sell-side jobs. The estimate from the linear probability model reported in Column (1) suggests that, relative to other analysts, affected analysts with previous early participation experience are more likely to keep their early participation status for the same firm even if

they move to other sell-side firms.⁹ In contrast, previous early participation shows no persistence when analysts obtain buy-side jobs. One implication of these results is that sell-side brokers value firm-specific connections more than buy-side financial institutions. Our results also hint that, when buy-side institutions value analysts' early participation status in earnings conference calls (as suggested by results in Table 5 below), they are likely to pay more attention to the expertise rather than the connection to management signalled by the early participation in earnings conference calls.¹⁰

3.2 Additional Analyses

3.2.1 New Employer Type

In this subsection, we investigate whether previous participation in earnings conference calls matters in the same way for different types of employers. We classify the new job under one of four types: sell-side finance jobs, buy-side finance jobs, corporate jobs, and other jobs. While carrying out multinomial logit regressions, we first use analysts who cannot find a job in the job search period as the base group. The results are reported in Table 5.

[Insert Table 5 Here]

Our results in Table 5 document that the effect of call participation varies across the different categories. Specifically, call participation matters for both buy-side and sell-side jobs and, not surprisingly, it does not matter for finding a job at a government agency or university. For finance (i.e., either a buy-side or sell-side job) and corporate jobs, early participation variables have a more significant impact on job search outcomes than late participation variables, irrespective of whether they are in the form of a dummy variable

⁹ It is worth mentioning that we also control for previous early attendance for industry peers in our specification, i.e., *Previous Industry Early Attendance* in Table 4. As expected, it loads for the affected analysts who move to other sell-side firms, but its coefficient is much smaller than that for *Previous Early Attendance*, suggesting that industry-wide expertise cannot fully explain the impact of firm-analyst connections on analysts' future careers.

¹⁰ Our results above do not only apply to the setting around broker closures. In an untabulated robustness check, we carry out a similar test with a standard panel dataset that captures the universe of all analyst-call pairs in our sample period. Then we use firm-specific and industry-level early participations calls for quarter t-1 to predict early participation of earnings conference calls in quarter t. We find that the persistence of early participation is robust in the full sample.

(Panel A of Table 5) or a continuous one (Panel B of Table 5). These results are consistent with the notion that these employers value the analyst-firm connections or dimensions of analyst skill that the empirical researcher does not directly observe.

Among the three types of jobs where participation of earnings conference calls affects job outcomes, the effect is strongest for sell-side jobs. We run a separate set of multinomial logit regressions using analysts who move to the buy-side as the base group. As reported in the last column of both panels of Table 5, the result suggests that, relative to buy-side institutions, the sell-side brokers pay more attention to their new employee's history of conference call participation and the breadth of firm coverage in previous jobs. This result is consistent with our previous observation that sell-side employers value connections with management more than do buy-side employers.

3.2.2 Speed of Job Search

Participation in earnings conference calls not only improves the likelihood of finding a new job, but is also likely to affect the time it takes to find a new job. We examine this possibility in Table 6 where the dependent variable, *Month*, is the number of months of unemployment between two jobs (i.e., the old job offered by the closing broker and the new job offered by the new employer) based on information obtained from professional career websites such as LinkedIn. We encounter two problems in calculating the length of time it takes to find a job. While in most cases we are able to find complete information of career histories (i.e., both month and year), for some we only have information on the year pertaining to the end of the old job and the commencement of the new job. In the latter case, we can only compute the variable based on calendar years and this may add noise to our analysis. Second, we are not able to compute the duration of unemployment for analysts who retire after brokerage closures.

To mitigate these issues, we estimate two Tobit models with censored data. In the first approach (Tobit Model 1 in Table 6), we right-censor all observations at L+12M, i.e., twelve months after the last forecasts for closing brokers. Specifically, for analysts who find jobs after L+12M or those that retire after broker closure, the variable *Month* is set to 12. This approach mitigates concerns mentioned above and weakens the effect of outliers by ignoring all the information after the cut-off point (i.e., L+12M). In the second approach (Tobit Model 2 in Table 6) we assign the maximum value of *Month* in the sample (i.e., 56 months in our sample) to all retirements. This approach tackles the second concern while preserving all employment information for other cases. In addition to the Tobit models, we also report results based on OLS which only includes information for cases where *Month* can be computed precisely. For this set of results observations affected by the two issues mentioned above are excluded from our sample.

[Insert Table 6 Here]

For the results of all three models reported in Table 6, participation variables have strong impact on the length of a job search. Moreover, early participation in a call has a much stronger effect than late participation. Tobit Model 1 suggests that early participants, on average take 5.3 months less than those who have not participated in any earnings calls. The length of job search for early participants is 2.5 months shorter than late participants. When we only focus on 458 observations where we have exact information about the length of job search, early participants spend 3.4 months less than analysts who have not participated in any. Given that it takes analysts in this sub-sample, on average, 4.8 months to find a new job, the difference between early participants and their peers are economically and statistically meaningful. Further, our results remain similar when we replace binary participation variables by continuous participation variables in all specifications.

In Panel B, we only focus on how call participation affects the duration of search for finance jobs. The test is carried out in a similar manner to Tobit Model 1 described in Panel A. When the length of job search for sell-side jobs is the dependent variable, we incorporate another variable, *Current Cover Early Attend*. This dummy variable is equal to one if an affected analyst is an early participant in calls for stocks covered by the new employer. Similarly, for buy-side finance jobs, we incorporate a new independent variable, *Holding Early Attend*, which captures whether the analyst is hired by a firm that already holds the stock in its portfolio.

Panel B of Table 6 presents two interesting results based on these measures. First, as expected, both *Current Cover Early Attend* and *Holding Early Attend* have strong impact on the length of the job search. These results suggest that sell-side (buy-side) finance firms particularly value connections or skills that are relevant to their own coverage (holdings). Second, while *Current Cover Early Attend* and *Holding Early Attend* have a stronger impact than *Early Attend Dummy*, controlling for these two variables does not eliminate the economic and statistical significance of early participation. This result hints that, while financial firms particularly value firm-specific skills and connections relevant to their business, they also give credit to analysts who have good relationship with firms in general.

3.2.3 Career Progression

In the absence of compensation information, a promotion/demotion at job separation provides us with arguably the best alternative measure of incentives. Here we focus on cases where the sell-side analyst gets a “promotion” by finding employment at larger broker. We follow Hong and Kubik (2003) in measuring broker status in terms of the number of analysts employed by a broker. This relies on the notion that larger brokers usually offer higher salaries and better job prospects.

[Insert Table 7 Here]

In Table 7, we define the dependent variable, *Promotion*, as a dummy variable that equals one if an analyst moves to a larger broker in the job search period. The probability of an early participant being promoted is 14.2 percent higher than their non-participating counterparts. This magnitude is economically meaningful given that only 42.1% of analysts can move to larger brokers, conditional on finding another sell-side job. However, this effect is significantly mitigated when we control for *Current Cover Early Attend*. The coefficient of *Early Attend Dummy* drops from 0.142 to 0.103. Meanwhile, the coefficient of *Current Cover Early Attend* is 2.7 times as large as that of *Early Attend Dummy*. Results from both models suggest that, for sell-side career promotion, analyst-firm connections that are relevant and useful to new employers are much more important than the general stature in analyst-firm networks.

4. Characteristics of Early Participants in Earnings Conference Call

In Section 3, we establish the relationships between prior participation in earnings conference calls and various aspects of job search, including the likelihood of finding a new job, the type of employer, the speed of job search and the likelihood of moving to a bigger broker. Our results are consistent with employers valuing both analyst connections with firm management as well as some dimension of analyst skill. We now provide additional evidence suggesting that early conference call participation signals both connections and skill. First, we show that early participants engage in “strategic distortions” between earnings forecasts and recommendations, consistent with closer ties with management (Malmendier and Shanthikumar, 2014). Second, we examine how early conference call participation determines the assignment of analysts to the coverage of stocks by their new sell-side employers, and identify both connections to management and industry-specific skills as important considerations for the coverage decision.

4.1. Strategic Forecasts and Recommendations by Early Participants

We first examine whether sell-side analysts who participate in earnings conference calls make their earnings forecasts and recommendations differently from their peers. Instead of using the sample based on 500 affected analysts in broker closure events, we rely on a more general sample in this test. Specifically, for each earnings conference call for firm i in quarter t ¹¹, we match this call with all I/B/E/S analysts that cover this firm and identify whether analysts are early participants or late participants in this earnings conference call. Then we test whether participation in the earnings conference call for quarter t can explain the cross-sectional differences in analysts' forecast accuracy, forecast optimism and recommendation optimism for quarter $t+1$. We provide a detailed timeline for our test design in the legend of Table 8.

The relative forecast accuracy across analysts is measured following Hong and Kubik and Solomon (2000) and Hong and Kubik (2003).¹² To compute this measure, we first calculate analyst j 's absolute forecast error (i.e., absolute forecast error = |forecasted earnings – actual earnings|/lagged price) based on her last forecast before the earnings announcement. Second, we rank all analysts covering a firm i for quarter t based on their absolute forecast errors (*Forecast_Error_Rank* in Equation (1)). For example, the most accurate analyst receives a rank of 1 and the least accurate analyst receives the highest rank. If analysts are equally accurate, we assign the midpoint of forecast error ranks to them. Third, we compute the relative forecast accuracy measure (*Forecast_Acc_Rank*) that adjusts the difference in analyst coverage across different firms as follows:

$$Forecast\ Acc\ Rank_{ijt} = 100 - \frac{Forecast\ Error\ Rank_{ijt} - 1}{Number\ of\ Analysts\ Covering\ the\ Firm_{ijt} - 1} \times 100 \quad (1)$$

¹¹ Earnings calls are typically held within 48 hours after the earnings announcement.

¹² This measure has been widely used in the analyst literature, such as Ke and Yu (2006), Jackson (2005) and Hilary and Hsu (2013).

We construct the relative forecast optimism measure (*Forecast_Opti_Rank*) and the relative recommendation optimism measure (*Recommend_Opti_Rank*) in the same spirit as the relative forecast accuracy measure. Detailed definitions are provided in Appendix II.

[Insert Table 8 Here]

Panel A of Table 8 provides summary statistics for all three relative analyst performance measures for three groups of analysts: early participants, late participants and analysts who are not able to attend the earnings conference call. The summary statistics indicate that early participants are slightly more accurate, less optimistic in forecasting earnings and more optimistic in making recommendations than analysts in the other two groups. However, without controlling for other known determinants that affect earnings forecast and recommendations, this pattern is hardly conclusive. In Panel B of Table 8, we formally test this pattern based on regression analysis in three sub-samples partitioned by the level of earnings shocks (i.e., (announced earnings – last consensus forecasted earnings before the announcement)/lagged stock price): 1) No shock - if earnings surprise falls between the 10 percentile and the 90 percentile of its cross-sectional distribution for quarter t ; 2) Positive shock - if earnings surprise is above the 90 percentile cut-off; and 3) Negative shock - if earnings surprise is below the 10 percentile cut-off. After controlling for a group of independent variables that have known effects on earnings forecasts and recommendations in the literature, we confirm our results in Panel A. Early participants of earnings conference calls for quarter t are more accurate, less optimistic in forecasting earnings but more optimistic in stock recommendations for quarter $t+1$ than analysts who are not able to attend earnings conference calls. Early participants make more accurate and less optimistic earnings forecasts but provide more optimistic recommendations than late participants. For earnings announcements with positive shocks, we find the difference in making earnings forecasts between early participants and late participants is statistically insignificant. However, under

this circumstance, early participants make more optimistic recommendations than late participants. On the other hand, for earnings announcements with negative shocks, we observe early participants make much less optimistic and more accurate forecasts than late participants for the next quarter while there is no statistically significant difference in the optimism of their recommendations.

[Insert Table 9 Here]

Our results in Table 8 indicate that early participants exhibit “strategic distortion” between forecasted earnings and recommendations. Malmendier and Shanthikumar (2014) distinguish between genuine optimism and strategic optimism. They argue that sell-side analysts have to serve two masters – firm management, and buy-side institutions who are their clients and rely on their earnings forecasts, stock ideas and research reports. Analysts are able to be more aggressively biased in their stock recommendations since buy-side institutions are able to see through this bias and only small investors’ trading behavior is affected; on the other hand, more accurate earnings forecasts allow management to meet or beat the consensus forecast and also help build their reputation with the buy-side. In other words, sell-side analysts speak with two tongues, especially when they are more connected to firm management. Malmendier and Shanthikumar (2014) show that strategic distortion is related to some measures of incentive mis-alignment like the importance of investment banking relationship.¹³ Thus, our finding in Table 8 that conference call participants distort strategically relative to their peers suggests that participation, and especially early participation, reflects connectivity to management.

In column (1) of Table 9, we confirm this finding by regressing *Recommend_Opti_Rank* on *Forecast_Opti_Rank*. We incorporate interaction terms between *Recommend_Opti_Rank* and participation dummy variables. Consistent with our findings in

¹³ Malmendier and Shanthikumar (2014) go on to construct a measure of strategic distortion and show that it is persistent at the analyst-firm level. They show that past strategic distortion has incremental explanatory power over other measures of incentive mis-alignment.

Table 8, the positive correlation between the relative optimism measure in earnings forecasts and the relative optimism measure in recommendations is significantly mitigated for early participants of earnings conference calls.

In columns (2) and (3) of Table 9, we partition our sample based on the level of institutional ownership. Consistent with the conjecture that the incentive for strategic distortion is stronger when optimistic recommendations can trigger trades by less informed investors (i.e., individual investors), we find that early participants exhibit a much stronger strategic distortion in calls of firms that have a lower institutional ownership.

4.2. Stock Coverage Assignment in Sell-side Firms

Another way to check whether sell-side firms value analyst-firm connection is to verify the relation between early participation in the evaluation period and the stock coverage assignment in analysts' new brokerage. Specifically, we test whether new sell-side employers are more likely to assign stocks to affected analysts when these analysts have prior early participation experience.

In this test, we merge each affected analyst that finds a sell-side job after the brokerage closure to all I/B/E/S firms by assuming the new employer can assign any stock to the analyst in theory. Therefore, the dataset is organized at the analyst-firm level. The dependent variable in Panel A of Table 10, *Cover*, is a dummy variable that equals one when the new sell-side employer assigns the stock to the analyst in an analyst-firm pair, and zero otherwise. Among the key independent variables, *Previous Early (Late) Attendance*, capture prior earnings conference call participation experience in the evaluation period. *Previous Early (Late) Industry Attendance* captures prior conference call attendance of other firms in the same industry. It is important to point out that, in our test specifications, we also control for affected analysts' previous coverage in the evaluation period and the existing industry coverage of the new sell-side employers. Therefore, the coefficients of participation variables

reflect the explanatory power of prior participation experience in explaining stock coverage assignment decisions of new sell-side employers in addition to previous coverage experience of analysts and industry specialization of the new sell-side employers.

[Insert Table 10 Here]

Results in Panel A of Table 10 suggest that prior participation experience, particularly early participation of earnings conference calls, significantly affects new sell-side employers' stock coverage assignment decisions. When an affected analyst was an early participant in an earnings call for one firm, the likelihood for the new sell-side employer to assign this stock to her is 16.0 percent higher than for those affected analysts who have no participation experience for this stock. Compared with affected analysts who were late participants, early participants still have a higher likelihood of covering the firm, and the difference in likelihood (i.e., 2.9 percentage points) is statistically significant at the 10% level. These differences are huge in terms of economic magnitude given that the unconditional probability of coverage assignment to a random stock is only 0.2%. Attendance of a conference call of another stock in the same industry also increases the likelihood of assignment by about 1%; however, here, there are no significant differences between early and late participants. The fact that industry coverage matters for assignment decisions suggests that even when connectivity to management is not apparent, participation is meaningful for coverage decisions when it is for stocks in the same industry. This is consistent with the notion that participation also reflects a dimension of industry-specific skill.

In Panel B of Table 10, when an affected analyst is assigned to a stock where she was an early participant in its earnings conference call, we differentiate between two cases: the new employer hires the affected analyst to cover a stock in its existing coverage (i.e., *Continued Coverage*) vs. the new employer hires the affected analyst to initiate a new coverage (i.e., *New Coverage*). We examine this issue by carrying out multinomial logit

regressions. Using the “no coverage” group as the base group, we find that *Previous Early Attendance* affects brokers’ coverage decision in both cases. Using “continued coverage” as the base group, we verify that the firm-analyst connection does not have a significantly different effect on broker’s “continued coverage” or “new coverage” decisions. However, we find that, new sell-side employers are more likely to ask analysts with a high level of industry expertise (proxied by *Previous Industry Early (Late) Attendance*) to initiate a new coverage relative to the assigning analysts to stocks they has already covered. These results suggest that coverage assignments of conference call participants not only reflect an attempt by the analysts’ new employers to benefit from their connectivity to management, but even when such connectivity is not apparent, to capitalize on their industry experience.

5. Conclusion

A large literature exists in finance and accounting on the role of sell-side analysts in financial markets. However, it is not straightforward to evaluate this role for three reasons. First, as has been recognized, sell-side analysts have to maintain a delicate balance between twin objectives of maintaining good relationships with the management of companies they cover and their buy-side clients, thus the objective function they try to maximize is not straightforward. Second, it is not possible to observe analysts’ compensation data, which is typically proprietary information. Therefore, large sample studies on how analysts are rewarded and what matters to them and their employers are not possible. Third, it is very difficult to separate analyst-firm connectivity and brokerage-firm connectivity and determine whether analyst-firm connectivity has any value to their prospective employers. In this paper, we exploit analyst participation in earnings conference calls, and especially, the order in which analysts are allowed by management to ask questions, as a proxy for both analyst connectivity and skill. We then examine how the analysts’ job outcomes are affected

following the brokerage closures by their prior conference call participation. We find strong evidence that managerial connectivity and industry level skills are important to analysts and their employers.

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Appendix I

Details about Closure Events and Post-event Career Outcome of Affected Analysts

Our sample includes all broker closure events between 2003 and 2012. We use the following three screening criteria to identify broker closure events: 1) The broker sends end EPS estimate notifications to I/B/E/S stop file. Broker firms terminate coverage of certain stocks now and then, we only include those stop notifications sent by the broker when the rest stocks under coverage were terminated at one time in order to avoid possible misspecification; 2) The brokerage firm never issues earnings forecasts or recommendations in I/B/E/S Detail EPS File and Recommendation File afterwards; 3) Information from Bloomberg Businessweek, Capital IQ, Factiva and FINRA broker check database confirms that the brokerage firm is out of business.

ID	Date	Broker Name	ID	Date	Broker Name
1	Apr-2003	Commerce Capital Markets	37	Oct-2007	Cathay Financial
2	Jul-2003	The Chapman Company	38	Dec-2007	Aperion Group
3	Sep-2003	Bluefire Research	39	Jan-2008	One-On-One Research
4	Jan-2004	Cantillon & Co.	40	Jan-2008	W. Quillen Securities
5	Jan-2004	Semi-Equity Partners	41	Apr-2008	Henley & Company
6	Jan-2004	Hudson River Analytics	42	Oct-2008	Coker & Palmer Inc.
7	Feb-2004	Montauk Capital Markets	43	Nov-2008	JSA Research
8	Mar-2004	Royalist Research	44	Feb-2009	Shareholder Value Manage
9	Apr-2004	Northeast Securities	45	Feb-2009	Stanford Group Company
10	May-2004	Summit Analytic Partners	46	Apr-2009	Dutton Associates
11	Jul-2004	Walton Holdings	47	May-2009	Research Associates
12	Oct-2004	Schwab Soundview Capital	48	Nov-2007	Nollenberger Capital
13	Nov-2004	Whitaker Securities	49	Jun-2009	Wasserman & Associates
14	Dec-2004	Weikko Research Inc.	50	Oct-2009	Utendahl Capital Partners
15	Mar-2005	Jb Hanauer & Co.	51	Dec-2009	The Robins Group
16	Mar-2005	HD Brous & Co.	52	Dec-2009	Soleil - Analytical
17	May-2005	Tradition Asiel Securities	53	Dec-2009	Ragen Mackenzie
18	Jun-2005	Terra Nova Institutional	54	Feb-2010	FTN Equity Capital Markets
19	Jun-2005	IRG Research	55	Feb-2010	Pali Research
20	Aug-2005	Wells Fargo Securities	56	Mar-2010	Soleil - Lime Rock Research
21	Sep-2005	Granite Financial Group	57	Jun-2010	Kevin Dann & Partners
22	Jan-2006	Southwest Securities	58	Jun-2010	Jesup & Lamont Securities
23	Mar-2006	Halpern Capital	59	Aug-2010	Soleil - Stein Research
24	Mar-2006	Arabella Securities	60	Aug-2011	Signal Hill Group LLC
25	May-2006	Variant Research Corp	61	Aug-2011	Broadpoint Capital
26	Jun-2006	Maxcor Financial	62	Dec-2011	Evolution Securities
27	Aug-2006	Foresight Research Solution	63	Jan-2012	Wealth Monitors
28	Aug-2006	McAlpine Associates	64	Feb-2012	Kaufman Bros
29	Sep-2006	New York Global Securities	65	Mar-2012	Collins Stewart
30	Sep-2006	Moors & Cabot Capital	66	Apr-2012	Morgan Joseph & Co.
31	Oct-2006	Infinium Securities	67	Jun-2012	Auriga USA
32	Dec-2006	Miller Johnson Steichen	68	Jul-2012	Pritchard Capital Partners
33	Mar-2007	De Investment Research	69	Oct-2012	Union Securities
34	Apr-2007	Cohen & Company	70	Oct-2012	Thinkequity LLC
35	Jun-2007	Prudential Equity Group	71	Dec-2012	Avian Securities LLC
36	Jun-2007	First Dallas Securities			

Appendix II Variable Definitions

Variable	Definition
<i>Abs(Earnings Shock)</i>	The absolute value of quarterly earnings surprise
<i>Any Job</i>	Dummy variable that equals one if a dummy variable that is equal to one if the affected analyst can find any job in the job search period, and zero otherwise
$\frac{\text{Avg Size Firms Attended}}{\text{Avg Size Firms Covered}}$	The ratio of average size of firms whose conference calls the analyst attends and the average size of firms that are covered by the analyst in the evaluation period
<i>B/M</i>	Book to market ratio of the firm under coverage
<i>Bookrunner Relationship</i>	Dummy variable that equals one if the affiliated broker firm is the IPO/ SEO bookrunner for the stock under coverage, and zero otherwise
<i>Breadth</i>	The number of stocks covered by the analyst in I/B/E/S in the evaluation period
<i>Breadth in Industry</i>	The number of firms covered in the same industry by the analyst
<i>Broker Size</i>	The number of analysts employed by the broker (Hong and Kacperczyk, 2010)
<i>Career Outcome</i>	Indicator variable which takes the value of 0 (i.e., <i>cannot find a job in the finance industry</i>), 1 (i.e., <i>find a sell-side job</i>), 2 (i.e., <i>find a buy side job</i>), 3 (i.e., <i>find a corporate job</i>), and 4 (i.e., <i>find a job in other fields, such as government</i>)
<i>Coverage</i>	Dummy variable that equals one if the new broker firm covers firm <i>i</i> , and zero otherwise
<i>Coverage Type</i>	Indicator variable which takes the value of 0 (i.e., <i>no coverage</i>), 1 (i.e., <i>continued coverage</i>), 2 (i.e., <i>new coverage</i>)
<i>Current Cover Early Attend</i>	Dummy variable that equals one if the analyst is an early attender of any stock covered by the new broker after the move, and zero otherwise
<i>Early Attend Dummy</i>	Dummy variable that equal to one if the analyst is able to be the first or the second question raiser in at least one earnings conference call in the evaluation period, and zero otherwise
<i>Early Attend Dummy (t)</i>	Dummy variable that equal to one if the analyst is able to be the first or the second question raiser in firm <i>i</i> 's quarterly earnings conference call in quarter <i>t</i> , and zero otherwise
<i>Early Attend Dummy (t) × Recommend_Opti_Rank</i>	The interaction term between <i>Early Attend Dummy (t)</i> and <i>Recommend_Opti_Rank</i>
<i>Early Attendance</i>	Dummy variable that equal to one if a sell-side analyst or a buy-side analyst is an early participant in the earnings conference call for firm <i>i</i> after the move, and zero otherwise
<i>Finance Job</i>	Dummy variable that equals one if the affected analyst can find any finance job (i.e., buy side or sell side) in the job search period, and zero otherwise
<i>Forecast_Acc_Rank</i>	The relative accuracy of analyst <i>j</i> 's latest forecast on firm <i>i</i> 's quarterly earnings issued after last quarterly announcement. Like Hong and Kubik (2003) we scale relative forecast accuracy between 0 and 100: $\text{Forecast_Acc_Rank} = 100 - ((\text{Forecast_Error_Rank} - 1)/(\text{Followed_Analysts} - 1))*100$
<i>Forecast_Opti_Rank</i>	The relative optimism of analyst <i>j</i> 's latest forecast is given by $\text{Forecast_Opti_Rank} = 100 - ((\text{Optimism_Rank} - 1)/(\text{Followed_Analysts} - 1))*100$
<i>High Tech Industry</i>	Dummy variable that equals one if the stock under coverage/attended belongs to high tech industry defined by Fama& French industry classification, and zero otherwise
<i>Holding</i>	Dummy variable that equals one if firm <i>i</i> is held by the new buy-

	side firm, and zero otherwise
<i>Holding Early Attend</i>	Dummy variable that equals one if the analyst is an early attender of any stock held by the new buy-side firm after the move, and zero otherwise
<i>Industry Coverage by Broker</i>	The number of stocks in the same industry under coverage by the affiliated broker firm
<i>Industry Early Attend (t)</i>	Dummy variable that equals one if the analyst is able to be the first or the second question raiser in the conference call hold by the same industry firms (except firm <i>i</i>) in quarter <i>t</i> , and zero otherwise
<i>Industry Early Attend (t)</i> <i>×Recommend_Opti_Rank</i>	The interaction term between <i>Industry Early Attend (t)</i> and <i>Recommend_Opti_Rank</i>
<i>Industry Late Attend (t)</i>	Dummy variable that equals one if the analyst attends the same industry firms' conference calls (except firm <i>i</i>) in quarter <i>t</i> but is unable to be the first or the second question raiser, and zero otherwise
<i>Industry Late Attend (t)</i> <i>×Recommend_Opti_Rank</i>	The interaction term between <i>Industry Late Attend (t)</i> and <i>Recommend_Opti_Rank</i>
<i>Late Attend Dummy (t)</i> <i>×Recommend_Opti_Rank</i>	The interaction term between <i>Late Attend Dummy (t)</i> and <i>Recommend_Opti_Rank</i>
<i>Late Attend Dummy</i>	Dummy variable that equal to one if the analyst attends at least one earnings conference call but is unable to be the first or the second question raiser in any earnings conference calls in the evaluation period, and zero otherwise
<i>Late Attend Dummy (t)</i>	Dummy variable that equal to one if the analyst attends firm <i>i</i> 's quarterly earnings conference call in quarter <i>t</i> but is unable to be the first or the second question raiser, and zero otherwise
<i>Log(1+Num Early Attend)</i>	The natural logarithm of 1 plus the number earnings conference calls where the analyst is able to be the first or the second question raiser
<i>Log(1+Num Late Attend)</i>	The natural logarithm of 1 plus the number earnings conference calls where the analyst asks questions but is unable to be the first or the second question raiser
<i>Log(Market Cap)</i>	The natural logarithm of the market capital size of the firm under coverage
<i>Mean Breadth</i>	The mean number of stocks covered by the analyst
<i>Mean Optimism</i>	The mean signed difference between a forecast and the actual EPS divided by the previous year's stock price by the analyst
<i>Month</i>	The number of months between the date the analyst loses his job and the date the analyst finds a new job in closure event
<u><i>Num Firm Attended</i></u> <u><i>Num Firm Covered</i></u>	The ratio of the number of firms whose conference calls are attended by the analyst and the number of firms covered by the analysts in the evaluation period
<i>Optimism</i>	The signed difference between an analyst's forecast and the actual EPS divided by the previous year's stock price
<i>Previous Coverage</i>	Dummy variable that equals one if the analyst covers the same conference call holding firm in the evaluation period, and zero otherwise
<i>Previous Early Attendance</i>	Dummy variable that is equal to one if the analyst is able to be the first or the second question raiser in the conference call hold by firm <i>i</i> in the evaluation period, and zero otherwise
<i>Previous Industry Early Attendance</i>	Dummy variable that equals one if the analyst is able to be the first or the second question raiser in the conference call hold by the same industry firms (except firm <i>i</i>) in the evaluation period, and zero otherwise
<i>Previous Industry Late Attendance</i>	Dummy variable that equals one if the analyst attends at least one earnings conference call but is unable to be to be the first or the second question raiser in the conference call hold by the same industry firms (except firm <i>i</i>) in the evaluation period, and

	zero otherwise
<i>Previous Late Attendance</i>	Dummy variable that is equal to one if the analyst attends at least one earnings conference call but is unable to be the first or the second question raiser in the conference call held by firm <i>i</i> in the evaluation period, and zero otherwise
<i>Promotion</i>	Dummy variable that equals one if an analyst finds another sell-side job in a larger broker after the move, and zero otherwise
<i>Recommend_Opti_Rank</i>	The relative optimism of analyst <i>j</i> 's recommendation on firm <i>i</i> issued after last quarterly announcement. $Recommend_Opti_Rank = 100 - ((Recommendation_Rank - 1)/(Recommended_Analysts - 1))*100$
<i>ROA</i>	Return to asset ratio of the firm under coverage
<i>S&P 500 Constituent</i>	Dummy variable that equals one if the stock under coverage/attended is included in S&P500 index in the year-end
<i>Seniority</i>	The number of years since the analyst entered I/B/E/S
<i>Seniority in Firm</i>	The number of years the analyst has covered the firm

Appendix III

Lagged Participation of Earnings Conference Calls and Analyst Post-event Career Outcomes

This table reports the estimates of linear probability/logit regressions about the impact of earnings conference call participation on analyst career outcomes after broker closures. The sample covers affected analysts in broker closure events between 2003 and 2012. The dependent variable, *Any Job*, is a dummy variable that is equal to one if the affected analyst can find any job in the job search period, and zero otherwise; the dependent variable, *Finance Job*, is a dummy variable that equals one if the affected analyst can find any finance job (i.e., buy side or sell side) in the job search period, and zero otherwise. In Panel A, *Early Attend Dummy_lag* is the lagged term for variable *Early Attend Dummy* in period (L-24M, L-12M). *Late Attend Dummy_lag* is the lagged term for variable *Late Attend Dummy* in period (L-24M, L-12M). In Panel B, *Log(1+Num Early Attend)_lag* is the previous one year lag term for variable *Log(1+Num Early Attend)* in period (L-24M, L-12M); *Log(1+Num Late Attend)_lag* is the previous one year lag term for variable *Log(1+Num Late Attend)* in period (L-24M, L-12M). Detailed explanations of other control variables are provided in Appendix II. T-statistics, reported in parentheses, are based on standard errors adjusted for the clustering at the broker closure event level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A.

Variables	Linear Probability Model		Logit Model	
	Any Job	Finance Job	Any Job	Finance Job
<i>Early Attend Dummy_lag</i>	0.123** (2.38)	0.127** (2.04)	1.838*** (3.80)	1.132*** (3.36)
<i>Late Attend Dummy_lag</i>	0.035 (0.61)	0.056 (0.84)	0.522 (1.38)	0.640* (1.89)
<i>Breadth</i>	0.009** (2.16)	0.015*** (3.03)	0.164*** (2.79)	0.141*** (3.37)
<i>Optimism</i>	-1.065 (-1.29)	-2.209*** (-4.94)	-2.866 (-0.50)	-10.074 (-1.55)
<i>Seniority</i>	-0.001 (-0.33)	-0.005 (-1.53)	-0.014 (-0.59)	-0.025 (-1.27)
<i>Broker Size</i>			0.028** (2.10)	0.012 (1.35)
Event Fixed Effects	Yes	Yes	No	No
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes
Observations	500	500	500	500
Pseudo/Adj. R-Square	0.283	0.296	0.177	0.120

Panel B.

Variables	Linear Probability Model		Logit Model	
	Any Job	Finance Job	Any Job	Finance Job
<i>Log(1+Num Early Attend)_lag</i>	0.053** (2.55)	0.017 (0.56)	1.076** (2.25)	0.214 (0.78)
<i>Log(1+Num Late Attend)_lag</i>	0.007 (0.31)	0.018 (0.52)	0.186 (0.81)	0.230 (0.95)
<i>Breadth</i>	0.009** (2.07)	0.017*** (2.82)	0.173*** (2.79)	0.155*** (3.17)
<i>Optimism</i>	-1.058 (-1.33)	-2.221*** (-4.81)	-2.772 (-0.53)	-9.067* (-1.68)
<i>Seniority</i>	-0.001 (-0.29)	-0.005 (-1.53)	-0.014 (-0.57)	-0.024 (-1.24)
<i>Broker Size</i>			0.030** (2.26)	0.015* (1.67)
Event Fixed Effects	Yes	Yes	No	No
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes
Observations	500	500	500	500
Pseudo/Adj. R-Square	0.272	0.283	0.156	0.097

Table 1
Summary Statistics

This table reports the summary statistics of affected analysts in broker closure events between 2003 and 2012. Panel A presents the distribution of career outcomes of affected analysts in broker closure events. Panel B reports the summary statistics of affected analyst characteristics in broker closures. Panel C reports the summary statistics of analyst characteristics in the full sample, which includes all analysts who cover firms making earnings conference calls.

Panel A. General Description

Variables	Number
<i>Affected Brokers</i>	71
<i>Affected Analyst-firm Relationships</i>	2,703
<i>Affected Analysts</i> <i>Total</i>	500
<i>Find Sell-side Financial Job in One Year</i>	329
<i>Find Buy-side Financial Job in One Year</i>	84
<i>Find Corporate Job in One Year</i>	26
<i>Find Other Job (e.g., government, university) in One Year</i>	7
<i>No Job within one year</i>	54

Panel B. Analyst Affected by Broker Closures (1 year before closures at the analyst level)

Variables	Mean	Median	Stdev	# Obs.
<i>Early Attend Dummy</i>	0.624	1.000	0.485	500
<i>Late Attend Dummy</i>	0.208	0.000	0.406	500
<i>Num Early Attend</i>	2.998	2.000	3.967	500
<i>Num Late Attend</i>	8.790	6.000	9.061	500
<i>Breadth</i>	6.882	6.500	3.899	500
<i>Optimism (%)</i>	0.005	0.000	0.028	500
<i>Seniority</i>	6.514	5.000	6.349	500
<i>Broker Size</i>	7.887	4.000	9.014	71
<i>Job Search Time</i>	4.840	4.000	4.305	458
<i>Promotion (Sell Side Only)</i>	0.421	0.000	0.495	329

Panel C. All Analyst Covering Call Holding Firms (Full Sample at the analyst-firm level)

Variables	Mean	Median	Stdev	# Obs.
<i>Forecast_Acc_Rank</i>	50.000	50.000	30.870	703,996
<i>Forecast_Opti_Rank</i>	50.000	50.000	31.001	703,996
<i>Recommendation_Opti_Rank</i>	50.000	50.000	33.596	126,808
<i>Early Attend Dummy (t)</i>	0.135	0.000	0.342	703,996
<i>Late Attend Dummy (t)</i>	0.305	0.000	0.460	703,996
<i>Breadth</i>	14.720	14.000	7.410	703,996
<i>Optimism (%)</i>	0.016	-0.046	0.510	703,996
<i>Seniority</i>	8.185	7.000	6.194	703,996
<i>Broker Size</i>	9.705	6.449	19.177	778

Table 2
Participation of Earnings Conference Calls and Analyst Post-event Career Outcomes

This table reports the estimates of linear probability/logit regressions about the impact of earnings conference call participation on analyst career outcomes after broker closures. The sample covers affected analysts in broker closure events between 2003 and 2012. The dependent variable, *Any Job*, is a dummy variable that is equal to one if the affected analyst can find any job in the job search period, and zero otherwise; the dependent variable, *Finance Job*, is a dummy variable that equals one if the affected analyst can find any finance job (i.e., buy side or sell side) in the job search period, and zero otherwise. In Panel A, *Early Attend Dummy* is equal to one if the analyst is able to be the first or the second question raiser in at least one earnings conference call in the evaluation period. *Late Attend Dummy* is equal to one if the analyst could attend at least one earnings conference call but is unable to be the first or the second question raiser in any earnings conference calls in the evaluation period. In Panel B, $\text{Log}(1+\text{Num Early Attend})$ is the natural logarithm of one plus the number earnings conference calls where the analyst is able to be the first or the second question raiser in the evaluation period; $\text{Log}(1+\text{Num Late Attend})$ is the natural logarithm of one plus the number earnings conference calls where the analyst attends but is unable to be the first or the second question raiser in the evaluation period. Detailed explanations of other control variables are provided in Appendix II. T-statistics, reported in parentheses, are based on standard errors adjusted for the clustering at the broker closure event level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A

Variables	Linear Probability Model		Logit Model	
	Any Job	Finance Job	Any Job	Finance Job
	(1)	(2)	(3)	(4)
<i>Early Attend Dummy</i>	0.131*** (3.25)	0.160*** (3.26)	1.783*** (4.77)	1.269*** (4.05)
<i>Late Attend Dummy</i>	0.086 (0.95)	0.040 (0.45)	0.703* (1.68)	0.412 (1.13)
<i>Breadth</i>	0.008** (2.21)	0.014*** (3.11)	0.158*** (2.75)	0.135*** (3.13)
<i>Optimism</i>	-0.926 (-1.07)	-2.072*** (-4.86)	-2.557 (-0.48)	-10.155* (-1.82)
<i>Seniority</i>	-0.001 (-0.26)	-0.005 (-1.44)	-0.007 (-0.24)	-0.022 (-0.95)
<i>Broker Size</i>			0.031** (2.41)	0.013 (1.55)
Event Fixed Effects	Yes	Yes	No	No
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes
Observations	500	500	500	500
Adj./Pseudo R-Square	0.314	0.319	0.233	0.157

Panel B

Variables	Linear Probability Model		Logit Model	
	Any Job	Finance Job	Any Job	Finance Job
<i>Log(1+Num Early Attend)</i>	0.074** (2.03)	0.105** (2.29)	1.597** (2.27)	1.051** (2.22)
<i>Log(1+Num Late Attend)</i>	0.067 (1.61)	0.024 (0.48)	0.838** (2.35)	0.312 (0.99)
<i>Breadth</i>	0.006* (1.81)	0.014*** (2.72)	0.141** (2.47)	0.133*** (2.90)
<i>Optimism</i>	-1.038 (-1.26)	-2.208*** (-5.23)	-2.946 (-0.61)	-10.283** (-1.97)
<i>Seniority</i>	-0.001 (-0.21)	-0.004 (-1.39)	-0.005 (-0.18)	-0.020 (-0.94)
<i>Broker Size</i>			0.029** (2.26)	0.013 (1.49)
Event Fixed Effects	Yes	Yes	No	No
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes
Observations	500	500	500	500
Adj./Pseudo R-Square	0.291	0.297	0.201	0.124

Table 3
Connection to Firms, Participation of Earnings Conference Calls and Analyst Post-event Career Outcomes

This table reports the estimates of linear probability regressions and logit regressions about the impact of earnings conference call participation on analyst career outcomes after broker closures. The sample covers affected analysts in broker closure events between 2003 and 2012. The dependent variable, *Any Job*, is a dummy variable that is equal to one if the affected analyst can find any job in the job search period, and zero otherwise. *Num Firm Attended/Num Firm Covered* is a ratio between the number of firms whose conference calls are attended by the analyst and the number of firms covered by the analysts in the evaluation period. *Avg Size Firms Attended/Avg Size Firms Covered* is the ratio of average size of firms whose conference calls are attended by the analyst and the average size of firms that are covered by the analyst. *Early Attend Dummy* is equal to one if the analyst is able to be the first or the second question raiser in at least one earnings conference call in the evaluation period, and zero otherwise. *Late Attend Dummy* is equal to one if the analyst attends at least one earnings conference call but is unable to be the first or the second question raiser in any earnings conference calls in the evaluation period, and zero otherwise. Detailed explanations of other control variables are provided in Appendix II. T-statistics, reported in parentheses, are based on standard errors adjusted for the clustering at the broker closure event level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Variables	Linear Probability Models		Logit Models	
	(1)	(2)	(3)	(4)
<i>Num Firm Attended/Num Firm Covered</i>	0.084* (1.92)		2.848** (2.39)	
<i>Avg Size Firms Attended/Avg Size Firms Covered</i>		0.001*** (2.86)	1.419*** (2.67)	0.784* (1.85)
<i>Early Attend Dummy</i>	0.105** (2.55)	0.130*** (3.20)	-0.668 (-0.90)	1.894*** (4.40)
<i>Late Attend Dummy</i>	0.052 (0.59)	0.085 (0.93)	0.110 (1.51)	0.242 (0.48)
<i>Breadth</i>	0.011** (2.62)	0.008** (2.31)	-18.283*** (-3.04)	0.157*** (2.58)
<i>Optimism</i>	-0.932 (-1.09)	-0.922 (-1.06)	-0.050 (-0.74)	-3.061 (-0.46)
<i>Seniority</i>	-0.001 (-0.24)	-0.001 (-0.23)	0.014 (1.01)	-0.001 (-0.01)
<i>Broker Size</i>			2.848** (2.39)	0.027** (2.08)
Event Fixed Effects	Yes	Yes	No	No
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes
Observations	500	500	500	500
Adj./Pseudo R-Square	0.319	0.315	0.211	0.280

Table 4
Persistence of Being Early Participants in Earnings Conference Calls

This table reports the estimates of linear probability models and logit models about the likelihood of being the first or second to attend earnings conference calls in the same firm in broker closure events. The sample covers affected analysts in broker closure events between 2003 and 2012 and includes all pairs after matching affected analysts that find sell-side and buy-side jobs after broker closures with all firms doing earnings conference calls. The dependent variable, *Early Attendance*, is a dummy variable that is equal to one if the affected analyst is the first or second to attend a conference call held by firm *i* after the move, and zero otherwise. *Previous Early Attendance* is a dummy variable that is equal to one if the analyst is able to be the first or the second question raiser in the conference call held by the same firm *i* in the evaluation period, and zero otherwise. *Previous Industry Early Attendance* is a dummy variable that is equal to one if the analyst is able to be the first or the second question raiser in the conference call held by the firms in the same industry (except firm *i*) in the evaluation period, and zero otherwise. *Coverage* is equal to one if the new broker firm covers firm *i*. *Holding* is equal to one if firm *i* is held by the new buy-side firm. Detailed explanations of other control variables are provided in Appendix II. T-statistics, reported in parentheses, are based on standard errors adjusted for the clustering at the broker closure event level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Variables	Linear Probability Model (Dependent Variable =Early Attend ×100)		Logit Model (Dependent Variable =Early Attend)	
	Sell Side	Buy Side	Sell Side	Buy Side
<i>Previous Early Attendance</i>	10.480*** (8.62)	0.167 (0.52)	2.182*** (11.55)	2.878 (0.17)
<i>Previous Industry Early Attendance</i>	0.055* (1.86)	-0.002 (-0.80)	0.805*** (4.78)	0.450 (0.39)
<i>Coverage</i>	4.654*** (10.24)		6.746*** (23.93)	
<i> Holding</i>		91.471*** (3.84)		38.520 (0.33)
<i>Bookrunner Relationship</i>	0.708* (1.89)		3.256*** (11.03)	
<i>Abs(Earnings Shock)</i>	-0.001*** (-3.10)	-0.000 (-0.85)	-0.869 (-1.10)	-1.274 (-0.37)
<i>Log(Market Cap)</i>	-0.006*** (-4.30)	-0.001* (-1.99)	-0.311*** (-3.20)	-0.955*** (-6.43)
<i>ROA</i>	0.014** (2.55)	0.004 (0.94)	0.424 (1.22)	2.713 (1.25)
<i>B/M</i>	-0.001** (-2.34)	-0.000 (-0.91)	0.001 (0.02)	-0.077 (-1.47)
<i>High Tech Industry</i>	-0.010** (-2.24)	-0.001 (-1.12)	-0.183 (-1.01)	-0.731 (-1.11)
<i>S&P 500 Constitute</i>	0.001 (0.32)	0.002 (1.59)	0.121 (0.50)	0.056 (0.39)
<i>Mean Breadth</i>			0.006 (0.30)	-0.011 (-0.09)
<i>Mean Optimism</i>			3.048 (0.50)	12.596 (0.63)
<i>Seniority</i>			0.017 (1.34)	0.053 (1.45)
Analyst-Event Fixed Effects	Yes	Yes	No	No
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes
Observations	2,548,794	658,967	2,548,794	658,967
Adj./ Pseudo R-Square	0.092	0.018	0.549	0.167

Table 5
Early Questions in Earnings Conference Calls and Analyst Post-event Career Outcomes

This table reports the estimates from multinomial logit regressions about the impact of early questions in earnings conference calls on analysts' career outcomes after broker closure. The sample covers affected analysts in broker closure events between 2003 and 2012. The dependent variable *Career Outcome* is a categorical variable which takes the value of 0 (i.e., *cannot find a job in the finance industry*), 1 (i.e., *find a sell-side job*), 2 (i.e., *find a buy side job*), 3 (i.e., *find a corporate job*), and 4 (i.e., *find a job in other fields, such as government*). In Panel A, *Early Attend Dummy* is equal to one if the analyst is able to be the first or the second question raiser in at least one earnings conference call in the evaluation period. *Late Attend Dummy* is equal to one if the analyst attends at least one earnings conference call but is unable to be the first or the second question raiser in any earnings conference call in the evaluation period. In Panel B, our analysis is based on continuous variables $\text{Log}(1+\text{Num Early Attend})$ and $\text{Log}(1+\text{Num Late Attend})$. $\text{Log}(1+\text{Num Early Attend})$ is the natural logarithm of one plus the number of earnings conference calls where the analyst is able to be the first or the second question raiser; $\text{Log}(1+\text{Num Late Attend})$ is the natural logarithm of one plus the number of earnings conference calls where the analyst asks questions but is not the first or the second question raiser. Detailed explanations of other control variables are provided in Appendix II. T-statistics, reported in parentheses, are based on standard errors adjusted for the clustering at the broker closure event level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A

Variables	Base Case = No Job				Base Case =Buy Side
	Sell Side	Buy Side	Corporate	Others	Sell Side
<i>Early Attend Dummy</i>	2.016*** (4.98)	1.382*** (3.21)	1.775** (2.39)	-0.200 (-0.17)	0.634** (2.15)
<i>Late Attend Dummy</i>	0.720 (1.62)	0.655 (1.33)	1.454*** (3.05)	-0.091 (-0.10)	0.066 (0.17)
<i>Breadth</i>	0.201*** (3.26)	0.072 (1.07)	0.040 (0.52)	0.168 (1.31)	0.129*** (3.19)
<i>Optimism</i>	-8.770 (-1.20)	-5.121 (-0.86)	9.016 (1.12)	7.170 (1.53)	-3.650 (-0.82)
<i>Seniority</i>	-0.008 (-0.24)	-0.011 (-0.34)	0.073** (2.07)	-0.135 (-1.64)	0.003 (0.15)
<i>Broker Size</i>	0.033*** (2.95)	0.028 (1.18)	0.048*** (2.97)	-0.004 (-0.12)	0.005 (0.31)
SE Clustered (Closure Event)					Yes
Observations					500
Pseudo R-square					0.134

Panel B

Variables	Base Case = No Job				Base Case =Buy Side
	Sell Side	Buy Side	Corporate	Others	Sell Side
<i>Log(1+Num Early Attend)</i>	1.842** (2.43)	1.260* (1.69)	1.829*** (4.00)	-1.152 (-0.73)	0.582** (2.06)
<i>Log(1+Num Late Attend)</i>	0.814** (2.28)	0.836* (1.77)	1.269 (1.58)	0.023 (0.03)	-0.023 (-0.07)
<i>Breadth</i>	0.182*** (2.97)	0.056 (0.77)	-0.026 (-0.34)	0.168 (1.25)	0.126*** (2.61)
<i>Optimism</i>	-9.312 (-1.39)	-5.292 (-0.95)	9.206 (1.32)	7.767 (1.64)	-4.020 (-0.91)
<i>Seniority</i>	-0.006 (-0.18)	-0.010 (-0.30)	0.074** (2.41)	-0.131 (-1.61)	0.004 (0.20)
<i>Broker Size</i>	0.031*** (2.74)	0.025 (1.04)	0.039** (2.44)	-0.005 (-0.12)	0.006 (0.34)
SE Clustered (Closure Event)			Yes		
Observations			500		
Pseudo R-square			0.123		

Table 6
Participation of Earnings Conference Call and Speed of Job Search

This table reports the estimates of Tobit/OLS regressions about the impact of earnings conference call participation on the speed of analysts' reemployment after broker closures. The sample covers affected analysts in broker closure events between 2003 and 2012. The dependent variable, *Month*, counts the number of months between the date the analyst loses his job and the date the analyst finds a new job. In Panel A, Tobit Model 1 (right-censoring limit = 12) and Tobit Model 2 (right-censoring limit=maximum *Month*) include 500 affected analysts. In OLS regression includes 458 analysts who we can find the exact number of months between two jobs. In Panel B, we present Tobit Model 1 results for analysts that find sell-side and buy-side jobs (for whom we can properly identify the exact *Month* variable) in post event period. *Early Attend Dummy* is equal to one if the analyst is able to be the first or the second question raiser in at least one earnings conference call in the evaluation period. *Late Attend Dummy* is equal to one if the analyst attends at least one earnings conference call but is unable to be the first or the second question raiser in any earnings conference calls in the evaluation period, and zero otherwise. $\text{Log}(1+\text{Num Early Attend})$ is the natural logarithm of one plus the number of earnings conference calls where the analyst is able to be the first or the second question raiser; $\text{Log}(1+\text{Num Late Attend})$ is the natural logarithm of one plus the number of earnings conference calls where the analyst asks questions but is not the first or the second question raiser. *Current Cover Early Attend* is a dummy variable which is equal to one if the analyst is an early attender of any stock covered by the new broker after the move, and 0 otherwise. *Holding Early Attend* is a dummy variable which is equal to one if the analyst is an early attender of any stock held by the new buy-side firm after the move, and 0 otherwise. Detailed explanations of other control variables are provided in Appendix II. T statistics, reported in parentheses, have been adjusted for the clustering at the broker level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A

Variables	Tobit Model 1		Tobit Model 2		OLS Model	
<i>Early Attend Dummy</i>	-5.271*** (-5.08)		-17.361*** (-4.18)		-3.369** (-2.39)	
<i>Late Attend Dummy</i>	-2.808** (-2.36)		-10.691** (-2.37)		-0.499 (-0.46)	
<i>Log(1+Num Early Attend)</i>		-1.103*** (-3.08)		-2.711** (-2.10)		-1.586*** (-3.13)
<i>Log(1+Num Late Attend)</i>		-0.919*** (-2.61)		-2.952** (-2.46)		-0.104 (-0.38)
<i>Breadth</i>	-0.132** (-2.37)	-0.051 (-0.81)	-0.523*** (-3.39)	-0.338* (-1.74)	0.005 (0.08)	0.069 (0.80)
<i>Optimism</i>	0.488 (0.04)	3.512 (0.22)	25.455 (0.52)	35.759 (0.65)	-0.168 (-0.01)	4.894 (0.38)
<i>Seniority</i>	-0.020 (-0.63)	-0.018 (-0.59)	0.011 (0.08)	0.017 (0.12)	0.045 (0.82)	0.038 (0.75)
<i>Broker Size</i>	-0.012 (-0.80)	-0.004 (-0.25)	-0.108*** (-2.79)	-0.085** (-2.16)		
Event Fixed Effects	No	No	No	No	Yes	Yes
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	500	500	500	500	458	458
Pseudo/Adj. R-Square	0.044	0.034	0.025	0.018	0.359	0.357

Panel B

Variables	Sell-side		Buy-side	
<i>Early Attend Dummy</i>	-1.575*		-4.823***	
	(-1.75)		(-3.38)	
<i>Late Attend Dummy</i>	0.495		1.642	
	(0.33)		(0.65)	
<i>Log(1+Num Early Attend)</i>		-1.299*		-3.788*
		(-1.89)		(-1.90)
<i>Log(1+Num Late Attend)</i>		0.375		0.636
		(1.27)		(0.45)
<i>Current Cover Early Attend</i>	-1.848***	-1.658***		
	(-3.75)	(-3.64)		
<i>Holding Early Attend</i>			-5.581***	-3.963***
			(-3.18)	(-4.21)
<i>Breadth</i>	-0.024	-0.004	0.162	0.312
	(-0.27)	(-0.04)	(0.76)	(1.35)
<i>Optimism</i>	16.036**	19.164**	-24.750	-15.252
	(2.17)	(2.34)	(-0.81)	(-0.42)
<i>Seniority</i>	0.016	0.008	0.156	0.148
	(0.35)	(0.15)	(1.18)	(1.04)
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes
Observations	329	329	84	84
Adj./ Pseudo R-Square	0.402	0.404	0.208	0.184

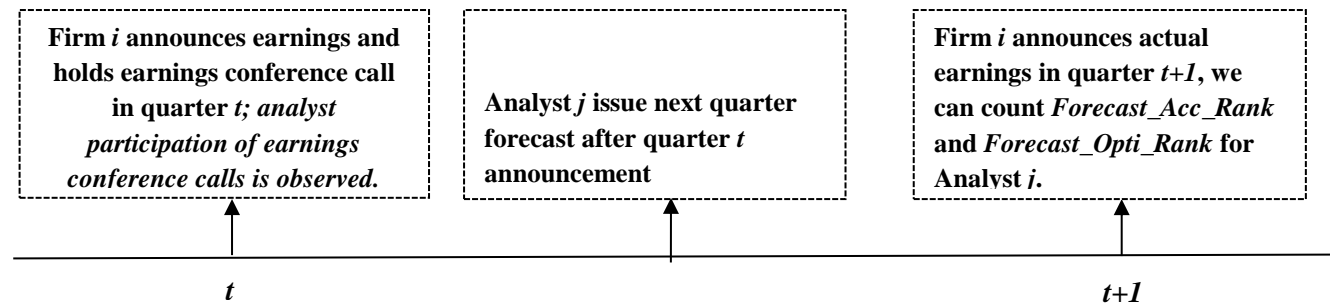
Table 7
Participation in Earnings Conference Calls and Promotion in Sell-side

This table reports the estimates from logit regressions about the impact of participation in earnings conference calls on analysts' career outcome conditional on an analyst finding another sell-side job after broker closure. The dependent variable *Promotion* is a dummy variable that equals one if an analyst is able to find another sell-side job in a larger brokerage after the move, and zero otherwise. *Early Attend Dummy* is equal to one if the analyst is able to be the first or the second question raiser in at least one earnings conference call in the evaluation period. *Late Attend Dummy* is equal to one if the analyst attends at least one earnings conference call but is unable to be the first or the second question raiser in any earnings conference calls in the evaluation period, and zero otherwise. *Current Cover Early Attend* is a dummy variable which is equal to one if the analyst is an early attender of any stock covered by the new broker after the move, and 0 otherwise. Detailed explanations of other control variables are provided in Appendix II. Standard errors, reported in parentheses, have been adjusted for the clustering at broker level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Variables	Linear Probability Models		Logit Models	
	(1)	(2)	(3)	(4)
<i>Early Attend Dummy</i>	0.142* (1.97)	0.103 (1.43)	0.746*** (3.06)	0.592** (2.24)
<i>Late Attend Dummy</i>	0.150 (1.07)	0.067 (0.47)	0.815 (1.54)	0.479 (0.90)
<i>Current Cover Early Attend</i>		0.270*** (3.24)		1.024*** (3.43)
<i>Breadth</i>	0.013 (1.54)	0.008 (1.05)	0.104*** (3.69)	0.092*** (3.55)
<i>Optimism</i>	-0.707 (-0.71)	-0.571 (-0.58)	-7.163 (-1.51)	-6.649 (-1.37)
<i>Seniority</i>	-0.000 (-0.02)	0.002 (0.54)	-0.020 (-1.10)	-0.013 (-0.72)
<i>Broker Size</i>			-0.031** (-2.45)	-0.030** (-2.35)
Event Fixed Effects	Yes	Yes	No	No
SE Clustered (Closure Event)	Yes	Yes	Yes	Yes
Observations	329	329	329	329
Adj./ Pseudo R-Square	0.324	0.374	0.081	0.118

Table 8
The Correlation between Question Queue in Earnings Conference Calls and Analyst Forecast Accuracy and Optimism

This table reports the estimates of linear regressions about the impact of question queue in earnings conference calls on analyst forecast behaviors. The sample covers all analysts who enter I/B/E/S database and forecast on conference call holding firms between 2003 and 2013. Analysts in earnings conference call data set are matched with I/B/E/S analysts who cover the same firm. The dependent variable, *Forecast_Acc_Rank*, is the relative accuracy of analyst *j*'s latest forecast on firm *i*'s quarterly earnings issued after last quarterly announcement. Following Hong and Kubik (2003), we normalize relative forecast accuracy between zero and 100 by defining $Forecast_Acc_Rank = 100 - ((Forecast_Error_Rank - 1)/(Followed_Analysts - 1)) * 100$. Similarly, the dependent variable *Forecast_Opti_Rank*, is the relative optimism of analyst *j*'s latest forecast, $Forecast_Opti_Rank = 100 - ((Optimism_Rank - 1)/(Followed_Analysts - 1)) * 100$. *Recommend_Opti_Rank*, is the relative optimism of analyst *j*'s recommendation on firm *i* issued after last quarterly announcement. $Recommend_Opti_Rank = 100 - ((Recommendation_Rank - 1)/(Recommended_Analysts - 1)) * 100$. In Panel A, we provide summary statistics of dependent variables for early participants, late participants and analysts who cannot attend earnings conference calls. In Panel B, we run OLS regressions among three sub-samples: 1) No shock, if earnings surprise is between 10th percentile and 90th percentile of the earnings surprise, rolling each quarter; 2) Positive shock, if earnings surprise is above 90th percentile of the earnings surprise, rolling each quarter; 3) Negative shock, if earnings surprise is below 10th percentile earnings surprise, rolling each quarter. *Early Attend Dummy* (*t*) is equal to one if the analyst is able to be the first or the second question raiser in firm *i*'s quarterly earnings conference call in quarter *t*, and zero otherwise. *Late Attend Dummy* (*t*) is equal to one if the analyst attends firm *i*'s quarterly earnings conference call in quarter *t* but is unable to be the first or the second question raiser, and zero otherwise. *Industry Early Attend* (*t*) is a dummy variable that is equal to one if the analyst is able to be the first or the second question raiser in the conference call held by the firms in the same industry (except firm *i*) in quarter *t*, and zero otherwise. *Industry Late Attend* (*t*) is equal to one if the analyst attends conference calls of firms in the same industry (except firm *i*) in quarter *t* but is unable to be the first or the second question raiser, and zero otherwise. Detailed explanations of other control variables are provided in Appendix II. T-statistics, reported in parentheses, are based on standard errors adjusted for the clustering at the earnings conference call level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.



Panel A: Summary Statistics

	Early Attend			Late Attend			No Attend		
	Mean	Median	Stdev	Mean	Median	Stdev	Mean	Median	Stdev
<i>Forecast_Acc_Rank</i>	51.001	50.000	32.216	50.613	50.000	30.239	49.424	50.000	30.866
<i>Forecast_Opti_Rank</i>	49.390	50.000	32.319	49.960	50.000	30.352	50.169	50.000	31.022
<i>Recommendation_Opti_Rank</i>	54.028	50.000	34.362	50.733	50.000	33.609	48.881	50.000	33.378
Observations	95,357			215,138			393,501		

Panel B: Regression Analysis

Variables	Forecast_Acc_Rank			Forecast_Opti_Rank			Recommend_Opti_Rank		
	No	Positive	Negative	No	Positive	Negative	No	Positive	Negative
<i>Early Attend Dummy(t)</i>	1.841*** (9.20)	1.046* (1.88)	-2.410*** (4.34)	-0.773*** (-3.84)	-0.020 (-0.04)	-1.138** (-2.06)	11.032*** (14.31)	10.345*** (5.18)	6.010*** (3.13)
<i>Late Attend Dummy(t)</i>	1.283*** (8.02)	1.128** (2.53)	1.687*** (3.72)	-0.208 (-1.28)	0.147 (0.33)	-0.248 (-0.55)	4.713*** (7.98)	4.850*** (3.22)	5.054*** (3.41)
<i>Industry Early Attend (t)</i>	0.120 (0.60)	-0.178 (-0.32)	-0.482 (-0.83)	-0.488** (-2.41)	-1.267** (-2.25)	-0.334 (-0.58)	-2.682*** (-3.46)	-0.884 (-0.43)	0.105 (0.05)
<i>Industry Late Attend (t)</i>	0.372* (1.85)	0.130 (0.23)	-0.554 (-0.97)	0.445** (2.19)	0.081 (0.14)	0.252 (0.44)	-2.251*** (-2.99)	-0.413 (-0.21)	0.699 (0.37)
<i>Seniority</i>	-0.070*** (-6.73)	-0.078*** (-2.67)	-0.064** (-2.19)	-0.085*** (-8.21)	-0.087*** (-2.97)	-0.052* (-1.74)	0.096** (2.56)	0.014 (0.13)	0.240** (2.42)
<i>Seniority in Firm</i>	0.078*** (4.94)	0.112** (2.02)	-0.006 (-0.11)	0.067*** (4.22)	0.110** (1.97)	0.061 (1.15)	0.124** (2.16)	0.215 (1.13)	0.215 (1.20)
<i>Breadth</i>	-0.058*** (-5.89)	-0.046 (-1.49)	-0.042 (-1.44)	0.012 (1.26)	-0.023 (-0.75)	0.004 (0.12)	-0.144*** (-3.94)	-0.239** (-2.28)	-0.151 (-1.44)
<i>Breadth in Industry</i>	0.015 (1.14)	-0.024 (-0.60)	0.110*** (2.72)	0.045*** (3.24)	-0.020 (-0.51)	-0.069* (-1.66)	-0.107** (-2.11)	-0.320** (-2.27)	-0.175 (-1.24)
<i>Broker Size</i>	-0.002* (-1.74)	-0.015*** (-4.55)	-0.008** (-2.55)	-0.006*** (-5.79)	-0.013*** (-3.87)	-0.012*** (-3.81)	-0.063*** (-16.43)	-0.079*** (-7.15)	-0.103*** (-9.73)
Firm Call FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustered (Call Level)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	563,528	70,582	69,886	563,528	70,582	69,886	98,752	13,641	14,415
Adj. R-Square	0.001	0.002	0.002	0.002	0.002	0.002	0.014	0.019	0.021

Table 9
Strategic Inconsistency between Earnings Forecast and Stock Recommendation

This table reports the results of linear regressions about the impact of analyst strategic forecast behavior. The sample covers all analysts who enter I/B/E/S database, have both forecast and recommendation on firms making conference calls between 2003 and 2013. We present the regression results in the full sample (Column 1) and in two subsamples with high/low institutional holding computed from Thomson Reuters Institutional (13f) Holdings file as the partition criteria (Column 2 and Column 3). The dependent variable *Forecast_Opti_Rank*, is the relative optimism of analyst j 's latest forecast following Hong and Kubik (2003), i.e., $Forecast_Opti_Rank = 100 - ((Optimism_Rank - 1)/(Followed\ Analysts - 1))*100$. Earnings conference call data set is matched with I/B/E/S data set by requiring that analysts have the same name and cover the same firm. The independent variable, *Recommend_Opti_Rank*, is the relative optimism of analyst j 's recommendation on firm i ' issued after last quarterly announcement. $Recommend_Opti_Rank = 100 - ((Recommendation_Rank - 1)/(Recommended\ Analysts - 1))*100$. *Early Attend Dummy (t)* is equal to one if the analyst is able to be the first or the second question raiser in firm i 's quarterly earnings conference call in quarter t , and zero otherwise. *Late Attend Dummy (t)* is equal to one if the analyst attends firm i 's quarterly earnings conference call in quarter t but is unable to be the first or the second question raiser, and zero otherwise. *Industry Early Attend (t)* is a dummy variable that is equal to one if the analyst is able to be the first or the second question raiser in a conference call held by firms in the same industry (except firm i) in quarter t , and zero otherwise. *Industry Late Attend (t)* is equal to one if the analyst attends conference calls of firms in the same industry (except firm i) in quarter t but is unable to be the first or the second question raiser, and zero otherwise. Detailed explanations of other control variables are provided in Appendix II. T-statistics, reported in parentheses, are based on standard errors adjusted for the clustering at the conference call level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Variables	(1) Full Sample	(2) High Institutional Holding	(3) Low Institutional Holding
<i>Recommend_Opti_Rank</i>	0.043*** (11.48)	0.033*** (6.71)	0.056*** (9.88)
<i>Early Attend Dummy (t)</i>	0.266 (0.39)	-0.382 (-0.41)	1.058 (1.05)
<i>Late Attend Dummy (t)</i>	0.266 (0.52)	-0.855 (-1.30)	1.795** (2.31)
<i>Industry Early Attend (t)</i>	-0.762 (-1.13)	0.215 (0.24)	-1.972* (-1.95)
<i>Industry Late Attend (t)</i>	-0.204 (-0.31)	0.552 (0.66)	-1.204 (-1.18)
<i>Early Attend Dummy (t) × Recommend_Opti_Rank</i>	-0.028*** (-2.69)	-0.016 (-1.09)	-0.043*** (-2.80)
<i>Late Attend Dummy (t) × Recommend_Opti_Rank</i>	-0.014* (-1.85)	0.006 (0.58)	-0.042*** (-3.42)
<i>Industry Early Attend (t) × Recommend_Opti_Rank</i>	0.007 (0.65)	-0.002 (-0.12)	0.018 (1.18)
<i>Industry Late Attend (t) × Recommend_Opti_Rank</i>	0.012 (1.22)	0.003 (0.25)	0.025 (1.57)
<i>Seniority</i>	-0.085*** (-4.23)	-0.101*** (-3.76)	-0.054* (-1.73)
<i>Seniority in Firm</i>	0.114*** (3.44)	0.120*** (2.67)	0.103** (2.03)
<i>Breadth</i>	0.016 (0.77)	0.050* (1.77)	-0.029 (-0.92)
<i>Breadth in Industry</i>	-0.011 (-0.38)	-0.033 (-0.89)	0.009 (0.21)
<i>Broker Size</i>	-0.003 (-1.23)	-0.008** (-2.38)	0.003 (0.92)
Firm Call Fixed Effects	Yes	Yes	Yes
SE Clustered (Call Level)	Yes	Yes	Yes
Observations	126,808	63,404	63,404
Adj. R-Square	0.021	0.024	0.037

Table 10
Stock Coverage Assignment after Job Turnover

This table reports the estimates from linear probability models, logit models (Panel A), and multinomial logit regressions (Panel B) about the likelihood of covering the same firm in broker closure events. The sample covers affected analysts in broker closure events between 2003 and 2012. We match affected analysts that find sell-side jobs after broker closures with all firms under coverage in IBES. In Panel A, the dependent variable, *Coverage*, is a categorical variable that takes the value of 1 if the stock is assigned to the affected analyst after her job turnover, and 0 otherwise. In Panel B, the dependent variable, *Coverage Type*, is a categorical variable which takes the value of 0 (i.e., *no coverage*), 1 (i.e., *continued coverage*), 2 (i.e., *new coverage*). *Previous Early Attendance* is a dummy variable that is equal to one if the analyst is able to be the first or the second question raiser in the conference call held by firm *i* in the evaluation period, and zero otherwise. *Previous Late Attendance* is a dummy variable that is equal to one if the analyst attends at least one earnings conference call but is unable to be the first or the second question raiser in the conference call held by firm *i* in the evaluation period, and zero otherwise. *Previous Industry Early Attendance* is a dummy variable that is equal to one if the analyst is able to be the first or the second question raiser in the conference call held by firms in the same industry (except firm *i*) in the evaluation period, and zero otherwise. *Previous Industry Late Attendance* is a dummy variable that is equal to one if the analyst attends at least one earnings conference call but is unable to be to be the first or the second question raiser in the conference call held by firms in the same industry (except firm *i*) in the evaluation period, and zero otherwise. *Previous Coverage* is a dummy variable that is equal to one if the analyst covers the same conference call holding firm in the evaluation period. Detailed explanations of other control variables are provided in Appendix II. T-statistics, reported in parentheses, are based on standard errors adjusted for the clustering at the broker closure event level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: New Sell-side Employers' Coverage Decision

Variables	Linear Probability Model	Logit Model
<i>Previous Early Attendance</i>	0.160*** (5.83)	0.795*** (3.48)
<i>Previous Late Attendance</i>	0.131*** (3.93)	0.720*** (3.39)
<i>Previous Industry Early Attendance</i>	0.008*** (7.41)	1.549*** (8.98)
<i>Previous Industry Late Attendance</i>	0.010*** (6.00)	1.948*** (9.84)
<i>Previous Coverage</i>	0.532*** (17.06)	6.343*** (25.22)
<i>Industry Coverage by Broker</i>	0.000** (2.05)	0.005 (1.22)
<i>Bookrunner Relationship</i>	0.008 (1.65)	2.305*** (4.02)
<i>Log(Market Cap)</i>	0.000*** (5.87)	0.152*** (4.65)
<i>ROA</i>	-0.000 (-0.70)	-0.039 (-0.48)
<i>B/M</i>	-0.000 (-0.96)	-0.012*** (-11.82)
<i>High Tech Industry</i>	-0.000 (-0.52)	0.102 (0.82)
<i>S&P 500 Constitute</i>	0.000* (1.84)	-0.023 (-0.23)
<i>Mean Breadth</i>		0.001 (0.06)
<i>Mean Optimism</i>		-2.450 (-0.44)
<i>Seniority</i>		-0.001 (-0.05)
Analyst-Event Fixed Effects	Yes	No
SE Clustered (Closure Event)	Yes	Yes
Observations	1,093,661	1,093,661
Adj./Pseudo R-Square	0.410	0.539

Panel B: Continued Coverage vs. New Coverage

Variables	Base Case = No Coverage		Base Case = Continued Coverage
	Continued Coverage	New Coverage	New Coverage
<i>Previous Early Attendance</i>	0.988*** (4.38)	0.825*** (4.69)	-0.162 (-0.64)
<i>Previous Late Attendance</i>	0.722*** (3.91)	0.681*** (3.96)	-0.041 (-0.27)
<i>Previous Industry Early Attendance</i>	0.153*** (2.87)	1.315*** (7.02)	1.162*** (6.19)
<i>Previous Industry Late Attendance</i>	0.301*** (3.40)	1.547*** (7.10)	1.245*** (5.52)
<i>Previous Coverage</i>	1.451*** (10.41)	6.779*** (30.30)	5.328*** (26.10)
<i>Industry Coverage by Broker</i>	0.058*** (17.57)	-0.012* (-1.65)	-0.070*** (-8.97)
<i>Bookrunner Relationship</i>	2.567*** (10.85)	2.793*** (2.79)	0.226 (0.25)
<i>Log(Market Cap)</i>	0.299*** (12.01)	0.166*** (4.94)	-0.132*** (-3.73)
<i>ROA</i>	-0.076*** (-8.18)	-0.069 (-0.74)	0.007 (0.07)
<i>B/M</i>	-0.007 (-1.60)	-0.012*** (-8.38)	-0.005 (-1.18)
<i>High Tech Industry</i>	0.400*** (10.46)	0.204 (1.64)	-0.196 (-1.64)
<i>S&P 500 Constitute</i>	0.494*** (3.56)	-0.033 (-0.31)	-0.527*** (-3.81)
<i>Mean Breadth</i>	0.021 (1.50)	-0.019 (-1.16)	-0.039** (-2.13)
<i>Mean Optimism</i>	-5.441** (-2.21)	-1.387 (-0.22)	4.054 (0.50)
<i>Seniority</i>	-0.010 (-1.22)	0.002 (0.16)	0.011 (0.75)
SE Clustered (Closure Event)		Yes	Yes
Observations		1,093,661	1,093,661
Adj./Pseudo R-Square		0.224	0.224