

Board Structure Mandates, Monitoring, and the Location of Directors

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ABSTRACT

The structure and composition of U.S. boards of directors changed substantially following the implementation of the Sarbanes-Oxley Act and exchange-listing board structure rules. In this paper, we study the effects of these mandates on directors' geographic locations vis-à-vis corporate headquarters. We document a significant increase in the remoteness of directors from headquarters after the implementation of the rules. The increased distance of directors—particularly those serving on monitoring committees—is associated with a greater reliance on equity-based CEO incentives and enlarged discretionary accounting accruals. Thus, the board structure requirements, by increasing the remoteness of directors from headquarters, appear to have had the unintended consequence of impairing the board's ability to obtain soft information about managerial performance. Our findings therefore suggest that, for some firms, the board structure mandates may have heightened the governance risks that they were intended to mitigate.

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1. Introduction

In 2002, the U.S. Congress passed the Sarbanes-Oxley Act, which was intended to curtail financial misreporting and improve accounting transparency. This legislation, along with related reforms in NYSE and NASDAQ exchange-listing rules, mandated new structural requirements for boards of directors, including director independence on key board committees and the presence of a financial expert on the audit committee. The Sarbanes-Oxley board requirements and the exchange reforms (hereafter, collectively referred to as “SOX”) became effective in 2002 and required compliance by 2004.¹ The recent literature documents that SOX had a substantial effect on the structure and functioning of boards. For example, board sizes increased following the adoption of SOX as firms appointed outside directors to meet the new requirements (Linck, et al. (2009)). Also, recent studies find that investors of firms that had engaged more heavily in earnings management prior to SOX reacted positively to key events associated with the passage of SOX (Li, Pincus, and Rego (2008)) and that the presence of an audit committee financial expert is generally associated with improved financial statement quality (Agrawal and Chadha (2005)).

The SOX mandates increased the levels of independence and financial expertise in the boardroom, but complying with these structural mandates may have also caused firms to bear significant unanticipated costs that vary with the geographic location of the firm’s headquarters. For example, a firm that was unable to identify independent, SOX-qualified directors living near

¹ Most firms were required to comply with the independent director mandates of SOX by the earlier of October 31, 2004 and the date of the first annual shareholders’ meeting held after January 15, 2004. For firms with classified boards, compliance was required by the second annual meeting of shareholders after January 15, 2004, but no later than December 31, 2005. Section 407 of the Sarbanes-Oxley Act, which required firms to disclose whether a financial expert was present on the audit committee, became effective for fiscal years ending on or after July 15, 2003.

corporate headquarters would need to conduct an expanded geographic search for director candidates. But more geographically remote directors face higher costs related to the time, expense, and coordination of travel. Also, relative to local directors, distant directors have fewer opportunities to acquire information from informal interactions with management, face-to-face meetings with employees, or in-person observations about the firm.

In this paper, we examine the consequences of the SOX mandates for director geography and for the monitoring of management. Prior empirical research has shown that geographic distance between directors and headquarters is an important determinant of the board's key monitoring decisions. For instance, Alam et al. (2014) find that more distant boards tend to rely more heavily on "hard" information (e.g., stock price performance) when designing CEO compensation plans or when deciding whether to terminate the CEO.² Here, we extend this line of research and ask whether SOX affected the nature and quality of board monitoring by giving rise to more geographically distant boards. Motivated by the premise that SOX and related exchange rules represented a substantial shock that drove many firms to seek out and recruit new directors, we use a unique dataset of over 11,000 director residential addresses to empirically study changes in board geography, board decisions, and financial reporting quality after the implementation of SOX.

We first document that the group of "monitoring" directors (i.e., those board members sitting on the nominating, audit, or compensation committee) generally became more geographically distant from headquarters over the sample periods, and particularly surrounding the enactment and implementation of SOX. The proportion of such directors residing more than

² See also the related literature documenting that geographic distance matters for information gathering in bank lending (Petersen and Rajan (1994, 2002)), investment management (Coval and Moskowitz (1999, 2001)), venture capital financing (Lerner (1995)), bond underwriting (Butler (2008)), and regulatory enforcement (Kedia and Rajgopal (2011)).

100 kilometers away from headquarters rose monotonically during 2002-2005. The data also indicate that some types of firms were less able to adapt to the new mandates. For example, firms headquartered farther from a major MSA experienced a greater increase in the proportion of remote monitoring directors. This pattern suggests that the regulatory mandates may have imposed indirect costs on firms, particularly those firms facing a limited supply of director talent within the local vicinity of headquarters.

While the remoteness of monitoring directors increased markedly after the required implementation of SOX, the geography of other types of directors was not affected in the same way. We observe that the distance from headquarters of directors who are not on a monitoring committee remained stable. Thus, in the years surrounding the SOX mandates, we find a growing geographical wedge between those directors whose primary task is monitoring and those whose main focus is on other functions, such as advising the CEO (Adams and Ferreira (2007)).

Like other studies of the corporate governance implications of SOX (e.g., Chhaochharia and Grinstein (2009), Duchin, Matsusaka, and Ozbas (2010), and Linck, Netter, and Yang (2008)), we rely on the occurrence of the new mandates as a largely exogenous change in firms' environments to partially overcome the identification problems related to endogenous firm decisions. However, a potential concern with our empirical approach is that the phenomenon of interest—an increase in the geographic remoteness of boards—may have been caused by some changes during 2002-2005 other than the “shock” of new director independence requirements. That is, other factors, coincident with but unrelated to the passage of SOX, might have accounted for the observed increase in board distances

To investigate this issue, we examine whether firms that, in 2002, were likely to face more constraints in complying to the new mandates experienced larger increases in monitoring director distance. We document that firms that were not already in compliance with the mandates in 2002 experienced a more pronounced rise in director distance between 2002 and 2005. We also find that firms with headquarters located relatively far from large MSAs experienced significantly higher change in director distance. These findings are strongly supported in multivariate fixed-effects panel regressions that control for board size, board independence, and other firm and board characteristics. We find that prior compliance, headquarters remoteness from a large MSA, and low tangibility of firm assets all are associated with a larger increase in director distance.

The results on how SOX impacted board geography complement Chhaochharia and Grinstein's (2007) finding that some provisions of SOX had a greater effect on some types of firms (e.g., small firms). The findings also relate to Romano's (2005) arguments against the use of mandatory (as opposed to enabling) rules in corporate law. Some firms faced relatively high costs of compliance from SOX, and they may have borne particularly heavy burdens from adapting to the new mandates (Romano (2005)). Our findings are consistent with this view. Moreover, the patterns of changing board geography that we document suggest that SOX may have weakened boards by making it more costly for directors to communicate with each other (see Langevoort (2001)).

Having established that SOX was associated with an increased remoteness of monitoring directors from headquarters, we next examine whether such changes influenced board decisions regarding CEO compensation. As in Alam et al. (2014), we argue that boards that are more geographically remote tend to face higher costs of acquiring soft information and will therefore

tie CEO compensation more heavily to hard, quantifiable measures of performance (i.e., stock prices). In multivariate analysis, we find that the extent to which monitoring directors became more remote during 2002 to 2005 was associated with a significant increase in the level of CEO option and equity-based compensation and a greater proportion of total CEO pay coming from stock and option grants. Because distance changes did not have a similar impact on total pay or cash-based pay, our results suggest that firms experiencing the largest increase in remoteness of monitoring directors shifted CEO pay systematically towards equity-based pay.

Our findings on the link between changes in director distance and changes in equity-based CEO compensation are particularly relevant to the broader discussion about whether SOX had unintended consequences. A growing literature indicates that stronger equity-based incentives and higher pay-for-performance sensitivity are associated with a greater likelihood of financial misreporting.³ Although some aspects of the SOX legislation have likely improved accounting quality and transparency, the effects of the board structure mandates on director distance and equity-based incentives may have had the unintended (and perverse) consequence of exacerbating managerial incentives to misreport financials.

If changes in director location did increase the likelihood of financial misreporting, then we would expect that those firms that experienced a greater increase in board remoteness around the implementation of SOX also exhibited a larger reduction in financial reporting quality. We investigate this hypothesis by studying changes in the size of discretionary accounting accruals. The evidence suggests that financial reporting on average did improve with the passage of SOX, but the improvement was largely confined to the firms that did not experience an increase in director remoteness. Specifically, the significant average post-SOX reduction in accounting

³ See, e.g., Cheng and Warfield (2005), Bergstresser and Philippon (2006), Burns and Kedia (2006), and Johnson et al. (2009).

accruals is largely absent for firms that were non-compliant and subsequently experienced large increases in director distance.

Although we cannot completely rule out the possibility that changes in unobserved firm characteristics affected both board distance and reporting quality, the cross-sectional patterns we document plausibly suggest that, for some firms, SOX increased the risks that it was intended to mitigate. We also acknowledge a limitation to our present study: any observed reduction in financial reporting quality might be due to more than one channel of effect. For instance, a SOX-induced shift towards options-based pay for some firms could have given managers stronger incentives to engage in earnings manipulation. At the same time, boards undergoing a large increase in director remoteness might suffer an increase in the costliness of gathering soft information that would help keep managerial misreporting in check. In this study, we do not distinguish between these two different possible effects.

Lastly, we examine the valuation impact of board distance. How do stock-market participants respond to news that a distant or proximate director has been newly appointed? We document a striking cross-sectional pattern in the stock market reaction to new director appointments. While the average abnormal stock return surrounding appointments of nearby and distant directors was not significantly different from zero, the average abnormal return around appointments for firms near a large MSA was positive and significant. When we further subdivide this sample, we find that, interestingly, shareholder wealth gains were driven by the appointments of remote individuals. These findings suggest that market participants were aware of the trade-offs in appointing new directors who are in the local vicinity versus more distant directors who are possibly better qualified to engage in monitoring.

Overall, our empirical findings suggest that care should be taken before concluding that added regulation necessarily improves governance by closing the gap between the idealized board and what is observed in practice. Differences in board make-up reflect the particular choices that firms make in response to firm-specific characteristics and practical management realities (Williamson (2008)). Rules mandating board independence and director qualifications may have an unavoidable impact on the equilibrium path forged by a firm's choices, especially if the firm had been noncompliant or if, due to supply constraints in the local director labor market, the firm is less able to adapt and optimize its board structure.

The paper is organized as follows. In Section 2, we describe how we gather our sample and present descriptive statistics. Section 3 presents an empirical analysis of changes in board distance over the sample period, with a particular focus on distance changes over the key SOX implementation period: 2002-2005. Section 4 examines how changes in board distance relate to changes in CEO compensation and financial reporting. Section 5 provides an examination of the valuation aspects of director distance, focusing on the stock market reaction to new director appointments in the post-SOX period. Section 6 offers a policy-oriented discussion of the results. Section 7 concludes.

2. Data

2.1 Data Collection

To form a systematically-sampled set of firms for our study, we rank firms in the S&P 1500 as of December 31, 2004 in order of descending market capitalization and retain every third firm. We exclude firms not headquartered within the 48 contiguous United States or the District of Columbia. We then use proxy statements from the SEC's EDGAR database to identify the full

names and ages of individuals who served on the boards of directors of these firms from 1998-2007. The initial sample comprises 11,974 individual directors at 495 firms from 1998 to 2007.

To gather data on directors' locations of residence, we use a two-stage procedure.⁴ We first obtain individuals' complete birthdates (month, day, and year) from publicly available data sources, primarily from the online *PeopleFinders* database (www.peoplefinders.com) and the *Board Analyst* database published by Corporate Library. *PeopleFinders*⁵ provides birthdates, addresses, business affiliations, and telephone numbers for the large majority of adult residents in the United States, and *Board Analyst* compiles proxy-statement data. Other data sources include company proxy statements, insider trading filings, *Google*, *ZoomInfo*, *Wikipedia*, *NNDB.com*, *BusinessWeek.com*, and *Forbes.com*. From these sources, we obtain complete birthdates for the large majority of individuals in our sample.

We use individuals' names and birthdates to search within LexisNexis' *Person Locator* database for addresses of residence. Compiled from public and non-public sources, the *Person Locator* database contains over 280 million data records for over 150 million U.S. residents. From this database, we obtain full names, birth months, birth years, partial social security numbers, phone numbers, known relatives, and current and historical addresses for up to the past 30 years.⁶

For the purposes of our study, the address data in *Person Locator* offer two advantages. First, the database provides a nine-digit zip code associated with the detailed address, which enables us to construct precise measures of distance between the residences of the directors and

⁴ See the Appendix in Alam et al. (2014) for a more detailed description of this two-stage data collection procedure. The original dataset in Alam et al. (2014) was constructed for 2004-2007, a subset of the sample used in the current study.

⁵ *PeopleFinders* obtains information from public sources including county courthouse records, utility company records, and over 4,300 telephone directories.

⁶ LexisNexis uses telephone directories, records from utility companies, driving records, county courthouse records, credit bureau header data, property tax assessment records, mortgages, deeds, bankruptcy filings, UCC filings, and data from the U.S. Post Office to obtain address and birth-date information.

corporate headquarters. Second, with the exception of a few P.O. boxes, *Person Locator* addresses represent owner-occupied housing or apartments. Alternative public sources for individual addresses (e.g., SEC Form 4 filings) frequently report a business address or the address of the corporate headquarters. The *Person Locator* database allows us to identify directors' histories of primary residential addresses, along with move-in dates and move-out dates.

After we exclude a small number of P.O. Box addresses, ambiguous addresses, and addresses in Alaska or Hawaii, we proceed to merge the address data with a panel dataset detailing a director's active board service during 1998-2007. We then use dates of occupancy, as reported by *Person Locator*, to ensure that each director is correctly associated with the primary residential address that was valid at the time the director served on a board. Occasionally, an individual will have in *Person Locator* two or more different street addresses (usually within the same 5-digit zip code) that bracket the director's period of active board service. To resolve the ambiguity in these cases of overlap, we select the address with the latest move-out date or, if two addresses have the same move-out date, the one with the earliest move-in date. Overall, we obtain 11,254 valid individual addresses over the sample period. Note that since some individuals serve as directors on multiple firms, the number of person-years understates the number of director-years.

We obtain zip codes for corporate headquarters from *Board Analyst* and proxy statements. For each residential and headquarters zip code, we identify corresponding latitude and longitude coordinates using the U.S. Census Bureau's *Census 2000 U.S. Gazetteer Files*. Following Coval and Moskowitz (1999), we compute distances as geodesic distances between

two points on the Earth's surface.⁸ To obtain alternate distance measures based on driving times, we use Google Maps (<http://maps.google.com>).

For each CEO and outside director, we gather data on individual characteristics, including age, tenure on the board, number of outside board seats held, and whether or not an individual serves as CEO of another quoted firm. We obtain financial data and other governance data from COMPUSTAT, corporate proxy statements, SDC Mergers and Acquisitions, and Board Analyst. From the U.S. Census Bureau, we obtain the locations of the top 25 most populous MSAs (Metropolitan Statistical Areas) in 2000 and average the latitudes and longitudes of all zip codes within an MSA to compute each MSA's geographic center. These locations allow us to measure the distance between firm headquarters and nearest large MSA. We gather data from the U.S. Federal Aviation Administration (FAA) website, which allows us to compute distances between headquarters and the closest public-use airport hub.⁹

2.2 Timing and Nature of SOX Mandates

For the purposes of establishing pre- and post-SOX periods for our study, the relevant events are (a) when the Sarbanes-Oxley Act and exchange rules on independence were first enacted into law, and (b) when firms were required to comply with the provisions. The Sarbanes-Oxley Act was signed into law by President George W. Bush on July 30, 2002. In Fall 2002, the NYSE and Nasdaq proposed their own rules on board and committee independence. These rules were approved by the Securities Exchange Commission in November 2003.

⁸ The spherical law of cosines approximates the above-ground distance between two locations on the Earth's surface as the great-circle distance between two points on a sphere:

$$\text{Distance}_{a,b} = r \times \arccos[\sin(a_{lat})\sin(b_{lat}) + \cos(a_{lat})\cos(b_{lat})\cos(a_{long} - b_{long})]$$

where r is the Earth's approximate radius (6378 kilometers) and where a_{lat} , a_{long} , b_{lat} , and b_{long} are the latitudes and longitudes of the two locations (in radians).

⁹ Per the FAA website, a public-use airport is considered to be a hub if it accounts for at least 0.05% of U.S. annual passenger boardings.

The SOX legislation and the NYSE and Nasdaq rules introduced important new requirements for director independence of public companies. The Sarbanes-Oxley Act mandated that audit committees of the board consist only of independent directors, defined to be directors who are not affiliated with the issuer and who do not accept fees except as director. The NYSE and Nasdaq rules defined director independence slightly differently¹⁰ and imposed the additional requirements that the other two key board committees (compensation and nominating) be independent. While the NYSE rule required all three of the key committees to be fully independent, the Nasdaq rule required majority independence for the compensation and nominating committees. See Romano (2005) and Linck et al. (2009) for a more complete discussion of the key requirements.

Most firms were required to comply with the independent director mandates of SOX by the earlier of October 31, 2004 and the date of the first annual shareholders' meeting held after January 15, 2004. In the case of firms with classified boards, full compliance was not mandatory until the second annual meeting of shareholders after January 15, 2004, but no later than December 31, 2005. Accordingly, we define the pre-SOX observations in our sample to be those corresponding to proxy filings in 2002 or earlier, while post-SOX observations consist of proxy filings in 2005 and later.

2.4 Descriptive Data

Table 1 provides an example of the data for two comparable firms operating in the same industry and headquartered in Silicon Valley near San Francisco, California. This anecdotal example illustrates how director location, director qualifications, and board size can vary widely

¹⁰ According to the NYSE rule, a director is considered independent if they have no "material relationship" with the company. Independence under the Nasdaq rule requires that a director has no relationship with the company that would interfere with "independent judgment."

in our data even among firms in the same industry. Firm A, which has about \$5.9 billion in assets, has seven outside directors and is able to attract directors with specific academic qualifications (doctor of law, bachelor of law, and master of business administration) from remote locations (Florida, Georgia, Alabama, and Massachusetts, respectively). Moreover, in keeping with their professional qualifications, four of the directors hold seats on the boards of other public companies. The median distance from headquarters for outside directors in this firm is 3,380 kilometers. In contrast, Firm B, which has \$339.4 million in assets, has four outside directors. The median distance of these directors from headquarters is 26 kilometers. The director with the highest level of academic certification (Ph.D.) resides 968.2 kilometers from headquarters and is the only non-local director. Altogether, the comparison of these two firms underscores the difficulty that firms face in attracting qualified directors from the local supply, and also how the desire to serve on the boards of larger and more prestigious firms may overcome the travel costs imposed on remote directors.

Table 2 provides descriptive sample statistics on the characteristics of firms, CEOs, and boards in our sample. The unit of observation is the firm-year. The average (median) firm in our sample has total assets of \$18.55 billion (\$1.39 billion). Most headquarters are situated less than 33 kilometers from a Top-25 MSA, but the distances vary considerably. The median board has nine members, of which 77.8% are “monitoring” directors who sit on at least one of the key committees. About two-thirds of the typical (median) board are independent directors. The median director age is slightly less than 60. This contrasts with the median CEO age of 55. In 31 percent of the firms, the CEO and Board Chair positions are separated. Only about 8 percent of directors are CEO of another publicly-traded company, but directors on average hold one outside board seat at a quoted company.

Table 2 also shows the distance of directors from headquarters. First, we report the median distance (in kilometers) between directors and headquarters. We use proportions and medians at the level of the firm to reflect the idea that the board as a whole is the decision-making unit, and a higher proportion of local (or distant) monitoring directors can affect how a board forms consensus views in its decision-making. What Table 2 shows is that, in general, monitoring directors live much farther from headquarters compared to their non-monitoring counterparts. The distribution is clearly skewed. For example, the typical (median) board has a median distance among monitoring directors of 453 kilometers, with a bottom of less than 64.3 kilometers and a top quartile of more than 1,166.6 kilometers. In contrast, only for about half of firm-years is the median non-monitoring director distance more than 44.4 kilometers.

Most of our empirical tests rely on the measure of board distance defined by a 100-kilometer radius around headquarters. As discussed in Alam et al. (2014), the rationale for focusing on a relatively close distance from headquarters is that variation at large distances may have a less meaningful effect on the ease with which a director can interact personally with management. For example, it may make little difference for a director's personal interactions with management whether he resides 800 or 900 kilometers from headquarters.

Table 2 shows that, for about half of the firm-years, two-thirds or more of the monitoring directors live farther than 100 kilometers from headquarters. At the 25th percentile, about 40% of monitoring directors reside outside of 100 kilometers, while at the 75th percentile, 85.7% of monitoring directors are remote.

2.5 Trends in Board Structure and Board Distance Over Time

Table 3 summarizes trends in the basic structure of boards and in the distance of monitoring directors from headquarters. Panel A shows that the average number of directors on a board was relatively constant until 2002, at which point it rose markedly from 9.2 members to 10.25 in 2004. By 2005, the average board size had fallen back down to 9.3. This pattern is consistent with the idea that SOX created an initial surge of board appointments as companies scrambled to comply with the new independence requirements. (See also Linck, Netter, and Yang (2009)). Then, after 2003, firms adapted to the new regulatory environment by rotating non-independent directors off of the board or letting the staggered terms of directors end without re-nominating them. Also consistent with the view that SOX was particularly disruptive to board structures starting in 2002 is the sharp increase in the percentage of firms—from 64.3% to 98.3%—having a committee structure covering all three of the key board functions (audit, compensation, and nominating).

The median kilometer distance of monitoring directors exhibited a steady rise throughout the sample period from 648 km. in 1998 to 820.2 km. in 2007. While the median distance did not exhibit any obvious spike around the passage and implementation of SOX, it increased steadily over almost the entire sample period. A possible explanation for this secular increase is that these years saw advancements in telecommunications technology, more widespread use of videoconferencing, and increasing availability of economical options for cross-country travel. Under the fractional distance measure, similar trends are apparent. In 2002, for example, an average of 56.6% of monitoring directors on the board lived more than 100 kilometers from headquarters. This average proportion increased steadily over the time period, reaching 67.4% in 2007.

To gain more insight into the factors that drove changes in monitoring director distance, we examine subsamples according to three dimensions along which firms might have differed according to their cost of complying with SOX. First, we consider whether or not a firm was already in compliance with the SOX provisions in 2002. A firm is “compliant” if it had a fully independent audit committee as well as a majority of independent directors on the compensation committee, the nominating committee, and the board as a whole.¹¹ Second, we consider the capital intensity of a firm’s assets—the ratio of the firm’s net PP&E to total assets. Firms with less tangible assets may have faced a higher cost of complying with the new independent requirements because monitoring directors located outside of the immediate vicinity may find it difficult and costly to acquire soft information relevant to their monitoring activities. Third, we consider proximity to a large (Top-25) MSA. As argued and shown empirically by Knyazeva, Knyazeva, and Masulis, firms situated near large metro areas have better access to deep pools of potential new directors with the required expertise or qualifications. Examples include directors who are Ivy-League alumni, those holding graduate, MBA, or law degrees, and those qualified to be audit-committee “financial experts.”

As Panel B of Table 3 shows, firms that were compliant generally exhibited more distant directors compared to non-compliant firms throughout 1998-2007. However, whereas the compliant firms experienced almost no change in monitoring distance from 2002 to 2005 (66.1% to 66.4%), the non-compliant firms experienced a larger upward move in monitoring board distance in the years immediately surrounding SOX. In 2002, the average non-compliant firm had 57.6% monitoring directors who were distant, and in 2005 the average proportion had grown to 65.1%, an increase of about 13%.

¹¹ For this purpose, a director is considered to be independent if they met the applicable NYSE or Nasdaq definitions. In cases where a board does not have one or more of the key committees, the independence criteria are applied only to the existing key committees, if any.

Panel C reports average distances according to whether Net PP&E to assets was above or below the median in 2002. The patterns here are similar to those for the compliance subsamples. Finally, as shown in Panel D, firms located relatively far from large urban areas experienced a greater increase in the proportion of monitoring directors who were non-local. In sum, the results in Table 3 underscore a growing geographical wedge period between those directors who monitor management and those who do not monitor directly (but who may nonetheless have good access to soft information that would be useful to board decisions). Moreover, the fact that the two distance measures (fractional vs. median) both exhibit a similar time pattern seems to indicate that the growing wedge was not likely driven by changes in the relative mixture between monitoring and non-monitoring directors. Rather, there appears to have been a systematic shift in geography *among* the group of monitoring directors for some firms.

3. Empirical Analysis of Changes in Board Distance, 2002-2005

The previous section showed time trends consistent with the idea that the SOX mandates pushed some firms more strongly away from equilibrium than it did others. In this section, we more carefully examine the impact of over a narrower window of time. Although compliance with the new mandates for most firms was not required until 2004, it is plausible that some firms began complying as early as 2003 when the new independence requirement became known. Hence, we focus on firm-year observations corresponding to proxy filings between 2002 and 2005.

Table 4 summarizes the levels and changes in average monitoring director distances for 2002 versus 2005. This is done within a difference-in-differences (DID) framework. We consider three different dimensions along which firms might be differentially exposed to the “treatment”

of SOX: (1) non-compliance in 2002 with the committee independence requirements; (2) High versus low capital intensity; and (3) whether headquarters is close or far ($> 100\text{km}$) from a large MSA. The role of compliance status is examined in Columns (1)-(3), while the roles of capital intensity and of proximity to a large MSA are analyzed in columns (4)-(6) and (7)-(9), respectively. The third row reports, for each subsample of firms, the changes in average distance that occurred between 2002 and 2005.

As the table shows, the non-compliant firms and those with low capital intensity or those near a large MSA initially had a shorter monitoring distance compared to their counterparts. By 2005, the gap still persisted, but it was significantly smaller. Indeed, sizable increases in distance of non-compliant firms and firms with less tangible assets helped to narrow the gap. With regards to headquarters proximity to large MSAs, firms located outside of 100 km. of an urban center initially had a longer director distance. But instead of shrinking between 2002 and 2005, this gap widened as distant boards increased their distance further. This is consistent with the idea that the scarcity of director candidates in the local labor supply imposes a constraint on firms seeking to fill board positions (Knyazeva, Knyazeva, and Masulis (2013)). Accordingly, remote firms were induced to search far afield for new director candidates to comply with the mandates.

The third row in the table reports changes in average board distance for the various subgroups, as well as the relative change in the difference (i.e., difference in differences). Column (3) shows that whether or not a firm was compliant in 2002 had a significant effect on the geographic impact of SOX: the diff-in-diffs estimate is 0.043, significant at the 5% level. Likewise, the relative gap between firms far from a large MSA versus firms close to one increased by a statistically significant 0.041 (more than 50% of the original difference).

Overall, these results suggest two basic conclusions. First, the firms that needed to restructure their committees the most to comply with independence requirements also experienced the largest shift in geography, indicating an overall scarcity of local qualified director candidates. Second, geographically remote firms that had limited access to director labor markets appear to have been forced to search far afield for candidates. In other words, for these firms, the scarcity of the local labor market was even more binding, making the exogenous “shock” of the new SOX mandates more onerous in terms of greater wear-and-tear, longer travel times, and reduced opportunities for acquiring soft information.¹²

It is possible that, contrary to the above interpretation, the larger increase in distance for the more constrained and less compliant firms reflects other differences between firms, such as differences in firm size, governance quality, the nature of assets, or industry-specific factors. Moreover, unobserved firm-level heterogeneity could account for firms’ differential responses to SOX. If compliance status or remoteness of firm headquarters were correlated with other important determinants of director distance, then the “shock” of the new independence requirements in the face of a limited local director labor supply may not be what truly drove the increase in board distances. For this reason, we turn to a multivariate analysis that relates board distances to the shock of the new mandates and to the different levels of constraints that firms faced in responding to the shock.

In Table 5, we estimate fixed-effects panel regressions that relate the distance of monitoring directors to the passage of SOX and the degree of “shock” or the constraints that firms faced. The dependent variable in these regressions is the fraction of monitoring directors

¹² Other empirical studies focus on SOX-related costs that are measurable in terms of compensation expense or a loss in stock market value. For example, Linck et al. (2009) document higher levels of board member compensation after SOX. Chhaochharia and Grinstein (2007) provide evidence that SOX negatively impacted the value of smaller firms that had not been in compliance with the board independence requirements prior to enactment.

who live more than 100 km. from headquarters. Each of the first three columns shows a regression that includes one of the constraint variables, interacted with a dummy equal to 1 for the post-SOX years 2005-2007. In the first regression, the constraint variable is *Non-compliant*, a dummy equal to one if the firm was non-compliant in 2002; in the second, we use *Remote HQ*, a dummy equal to 1 if the HQ was more than 100 km from a large MSA; and in the third, we use *Low capital intensity*, a dummy equal to 1 if the firm had below-median Net PP&E to assets in 2002. The last column shows a combined specification in which all three interactions are included as regressors.

By including firm fixed effects in these regressions, we account for time-invariant firm characteristics, regardless of whether they are unobserved and regardless of their correlations with the variables of interest (Gormley and Matsa (2013)). The regressions also include control variables for firm size, leverage, return on assets, and board size. In addition, each regression controls for other governance aspects, including the tenure of the CEO on the board, the percentage of shares owned by unaffiliated blockholders, whether or not the firm is incorporated in Delaware, and whether or not the Chairman is the CEO. The regressions also include dummy variables to capture year fixed effects.

Column (1) shows that the coefficient on the interaction with *Non-compliant* is 0.03, significant at the 1% level, indicating that firms not in compliance experienced significantly greater distance increase than compliant firms as a result of SOX. The coefficient estimate in Column (2) for *Remote HQ* \times *Post-SOX dummy* is qualitatively similar in magnitude and significance. Likewise, the coefficient on *Low capital intensity* \times *Post-SOX dummy* is positive and significant at 5%. When all three interaction variables are included, their coefficients remain significant at better than the 1% level. Thus, the results provide support to our interpretation that

the implementation of SOX was a shock to board structures that drove particular types of firms to increase board distances.

Among the control variables, only board size and the presence of a Non-CEO Chairman are significant at conventional levels. A possible explanation for the board size result is that large boards tend to have large numbers of monitoring directors, making it less likely that most of these directors originate from the same vicinity. The positive coefficient on the Non-CEO Chair indicator could reflect the fact that firms with an independent Chairman have more effective monitoring, hence obviating the need for other monitoring directors to reside close to headquarters to economize on monitoring and information gathering.

4. Relating Corporate Outcomes to SOX and Changes in Director Distance

In this section, we turn to an examination of how changes in the distance of monitoring directors around SOX affected CEO compensation and financial reporting quality. We study the impact of SOX-induced distance shocks on the structure of CEO pay in Section 4.1, and we examine their effects on accounting accruals in Section 4.2.

4.1 Changes in CEO Compensation

Optimal contracting theory suggests that, when agents' actions are unobservable, principals should rely on costly compensation that is tied to observable measures of output or performance (Holmstrom (1979); Shavell (1979); Prendergast (2000, 2002)). Within our context, distant directors face greater costs of obtaining soft information about the specific actions and performance of management, and thus a distant board should be more likely to tie compensation

ex ante to a “hard” performance measure (i.e., stock price performance), which is observable and easily conveyed across distance.

To empirically test this implication, we estimate fixed-effects panel regressions that link various components of CEO compensation to the extent to which monitoring director distance changed around SOX. The main explanatory variable of interest is $\Delta\text{Board distance} \times \text{post-SOX}$, which captures the effect on post-SOX pay from changes in board distance. Our regressions include firm fixed effects and year fixed effects. Relating CEO compensation to distance changes in this manner helps to mitigate the concern that our regressions might simply capture the effect of unobserved third factors that are affecting both CEO pay and board distance around the implementation of SOX.

As before, we measure board distance as the fraction of monitoring directors located more than 100 kilometers from headquarters. To construct measures of CEO compensation, we use data from the Standard and Poors *ExecuComp* database. Each year’s compensation data are matched to the board in place at the time the compensation was awarded. We consider several different measures of CEO compensation, including logarithmic transformations of the following: total pay, cash-based pay (salary plus bonus), option-based pay, and equity pay. We also consider the “intensity” of option and equity pay, i.e., the fraction of total compensation due to current-year option grants or equity grants.

The regressions also include a number of time-varying controls for governance, firm characteristics, and CEO characteristics. To control for a potential relation between CEO compensation and the nature of a firm’s assets, we include the ratio of Net PP&E to total

assets.¹⁶ In our regressions, we include return on assets, firm size, CEO age, and CEO tenure on the board. We also include a number of controls for governance, such as the log of unaffiliated blockholder ownership, board size and independence, Delaware incorporation, CEO-Chairman duality, and whether or not the board has a classified structure.

Table 6 shows that the change in monitoring director distance from 2002 to 2005 has no significant effect on the log of total CEO pay. Nor does the SOX-induced distance change have an effect on cash-based pay. However, the results reveal a strong relation between the distance change and the use of equity-based pay. For instance, Columns (3) and (4) in the table show that the interaction of the change in board distance with the post-SOX dummy is significantly positively related to both option pay and equity pay. Moreover, in the regressions of the intensity of option pay or equity pay (Columns (5) and (6)), the coefficient estimate on $\Delta\text{Board distance} \times \text{post-SOX}$ is positive and significant at the 1% level.

Overall, these results are consistent with arguments in Alam et al. (2014) that more distant monitoring committees tend to outsource CEO performance incentives to the market by relying much more heavily on equity-related pay elements such as stock options and restricted stock. Not only do such elements provide the CEO with incentives that require little board discretion ex post, but they are contractually tied to hard performance measures, e.g., stock performance, in a calculative matter that does not require directors to gather soft information.

4.2 Changes in Discretionary Accounting Accruals

One possible consequence of more distant monitoring directors and stronger stock-based CEO compensation is an increased incentive to engage in financial misreporting. Empirical

¹⁶ Evidence on optimal contracting suggests that boards use more equity-based incentives when it is more difficult for directors to monitor managers. See, e.g., Smith and Watts (1992), Gaver and Gaver (1995), Mehran (1995), Core and Guay (1999), Bryan, Hwang, and Lilien (2000), and Ryan and Wiggins (2001).

studies document a positive relation between the intensity of stock-based incentives and the likelihood of financial fraud (see, e.g., Cheng and Warfield (2005), Bergstresser and Philippon (2006), Burns and Kedia (2006), and Johnson et al. (2009)). Since the detection and revelation of financial misreporting inevitably lag the occurrence of misreporting behavior itself, an insufficient amount of time has passed since the end of our sample period to obtain an accurate picture of changes in fraud-based accounting misstatements. In addition, Hazarika, Karpoff, and Nahata (2012) find that forced CEO turnover is greater for CEOs that engage in more aggressive earnings management, so internal governance mechanisms may often intervene before manipulation results in the need for an accounting restatement or an SEC enforcement action.¹⁷

We therefore use discretionary accounting accruals to proxy for the quality of firms' financial reporting. If monitoring directors' impaired ability to gather soft information and a greater reliance on equity-based pay lead to stronger managerial incentives to manipulate financial reporting, we would expect firms with the largest rise in board distance around the SOX implementation to also exhibit the largest decrease in financial reporting quality.

To investigate this hypothesis, we analyze changes in the magnitudes of firms' discretionary accounting accruals. We first calculate firms' discretionary accounting accruals from a Modified Jones (1991) Model. In this approach, total accruals are regressed on firm size, revenue, and gross property, plant and equipment to estimate discretionary accruals (see Bergstresser and Philippon (2006)) to calculate discretionary accruals.

Table 5 reports mean and median values of absolute discretionary accruals for various subsamples in 2002 (pre-SOX) and 2005 (post-SOX). The table shows that, regardless of whether a firm was compliant or not, and regardless of whether the change in board distance

¹⁷ Note, however, that these internal actions impose significant costs on shareholders including the costs of replacing the CEOs, the diversion of the boards' attention from the primary operations of the firms, and reputational penalties imposed on firms associated with manipulation (see Karpoff, Lee, and Martin (2008a)).

from 2002-2005 was above or below the median, the firm on average exhibits a large reduction in the magnitude of accruals. For example, the average (median) accrual magnitude for all firms decreased from 0.055 (0.034) in 2002 to 0.043 (0.029) in 2005. These changes are statistically significant at 1%. The pre-SOX to post-SOX decreases in average accrual magnitude for the other subgroups were also significant, with the exception of non-compliant firms experiencing a low change in board distance.

To better understand how SOX and the concomitant changes in monitoring director distances affected accruals, we turn to multivariate estimation. Once again, to mitigate endogeneity concerns, we employ panel regressions with firm fixed effects and year fixed effects. The dependent variable is the absolute value of discretionary accruals from the Modified Jones Model, calculated as described above. The main explanatory variables of interest include interaction variables *Non-compliant* \times Post-SOX and Δ *Board distance* \times Post-SOX, which capture the SOX-induced effects of moving to a more independent board structure and a more geographically distant board structure.

In each regression, we add control variables that have been found in prior research to be associated with discretionary accruals, including firm size, return on assets (ROA), sales growth, standard deviation of sales, and company age. In addition to these controls, we include the log of unaffiliated blockholder ownership, board independence, Delaware incorporation, CEO-Chairman duality, and CEO tenure on the board.

Table 8 reports the results. Column (1) shows that the change in the size of absolute discretionary accruals is significantly lower when a firm is forced away from a state of non-compliance in 2002. In Column (2), the coefficient estimate on Δ *Board distance* \times Post-SOX is positive and significant, which shows that a larger increase in the distance of monitors tends to

result in a larger discretionary accruals. This supports the view that remoteness of directors can translate into weaker monitoring and reduced reporting quality.

To examine the interaction between compliance and the change in distance, we interact *Non-compliant* \times Post-SOX with two binary variables: one indicating an above-median distance change and one indicating a below-median change. The regression in Column (3) therefore includes two triple-interaction terms. As the regression shows, the interaction involving the low distance change has a significant negative coefficient, but the interaction involving the high distance change is positive and insignificant. This shows that the reporting quality benefits of the SOX mandates only appear to arise if a firm's board distance does not increase markedly. Finally, as a further check, in Columns (4) and (5) we estimate two regressions of accrual size on *Non-compliant* \times Post-SOX for two separate subsamples in which the change in board distance was high or low. These results again demonstrate that the benefits of SOX (in terms of reduction in the magnitude of accruals) seem to disappear when a firm is "forced" into increasing its board's distance during 2002-2005.

5. Valuation Implications of Board Distance

5.1 Market Reactions to Local and Remote Director Appointments

The evidence in Alam et al. (2014) suggests that board proximity varies according to the need for soft information about the firm. Regulatory board structure mandates may destroy rather than create value for some firms if they force boards to search for director candidates who are more geographically distant than is optimal. On the other hand, if a firm has access to a large supply of director talent in the local labor market, it is likely to find a suitable director candidate

nearby. Proximate firms, however, may still appoint a more distant director if he or she provides outstanding expertise and qualifications.

To explore whether market participants recognize and value the tradeoffs that firms face when responding to the SOX mandates, we examine the short-term market reaction to announcements of new director appointments made during 2005-2007. Specifically, we collect a sample of announced director appointments by performing a keyword search for news stories in LexisNexis from one full year before to one full year after a director first appears in a company's proxy statement.¹⁹ We exclude appointments of affiliated directors as well as cases where a firm announced multiple board appointments on the same day.

Each remaining appointment is classified according to the distance between the appointee and headquarters (whether or not the distance exceeds a threshold of 100 kilometers) and according to compliance status or the distance from headquarters to the closest MSA. The final sample consists of 367 announcements with available stock return data, of which 122 are for nearby appointees. We define the date of the earliest news announcement of the appointment as event day 0 and consider three event windows: (-1,1), (-2,1), and (-2,0). To estimate daily abnormal stock returns, we use a market model with the CRSP equal-weighted stock index. (The results are similar if we calculate abnormal returns as market-adjusted returns.)

Table 9 reports average cumulative abnormal returns (CARs) over the three event windows for various subsamples. We find that there is little evidence of a significant market reaction among firms in the "Compliant Firms" subsample or the "Non-Compliant Firms" subsample.

¹⁹ We use the director name, firm name, and the following search terms: "director or board", "appoint!", "elect!", "join!", "name!", and "pick!". The "!" identifies word variants such as "appointment," "election," or "picked."

For subsamples based on the headquarters-to-MSA distance, a different pattern emerges in the price reactions to director appointments. When an appointee is proximate and headquarters is close to a Top-25 MSA, the abnormal price reaction is not significantly different from zero. Thus, market participants seem to anticipate that firms with access to deep, local director markets will successfully look for and find nearby directors to appoint. Interestingly, however, when a firm appoints a distant director despite headquarters' proximity to a large MSA, the stock price reaction is significantly positive. We interpret this as evidence that the market is positively surprised when a close firm appoints a distant director. Indeed, when a proximate firm recruits a distant director, this can be seen as an indicator that the firm deliberately looked for director talent farther afield

For distant firms, the price reactions to appointments are generally muted. When a firm is not situated close to a large MSA, the appointment of a remote director results in a market reaction that is weakly positive at best, consistent with the idea that distant directors are viewed primarily as stock market proxies. Faced with a lack of qualified nearby director candidates, a firm is then likely to be forced to tap into more distant markets, and that is what the market expects. The appointment of a nearby director is associated with a sizeable average CAR for proximate employees over all three windows (e.g., 0.78% for (-2,1), 84% for (-1,1), and 63% for (-2,0). These averages are not significant, however, possibly due to the small sample size.

Overall, the market reaction evidence shows that the appointment of a new director by a firm located near an urban center reflects two competing considerations. On the one hand, by moving monitoring directors farther away from management and from other sources of soft information, the SOX requirements may have undermined the valuable information-gathering role of the board. At the same time, our results suggest that the market factors this in to stock

prices and that it rewards firms that go beyond the norm to identify and attract highly-qualified directors, even remote ones.

6. Discussion and Policy Implications of the Findings

Boot and Macey (2004) posit that the tradeoff between proximity and objectivity is a key consideration in the evaluation of a corporate governance system. Although appointing qualified directors from geographically distant director labor markets might enable a board to serve the objectivity goal by meeting statutory board structure requirements, the growing remoteness of monitoring directors is troubling given recent research showing a positive link between auditor distance from headquarters and the incidence of financial statement misreporting (Choi, et al. (2012)). In Table 8, we indeed find a positive association between changes in board distance and changes in the size of abnormal accruals.

This finding suggests that SOX may very well have increased the types of risks it was intended to mitigate, at least for some firms.²⁰ The independence and expertise requirements in the SOX rules may have reduced the adaptability of some firms' boards and shifted their mode of functioning more towards reliance on easily observable metrics. The stock market reaction evidence in Table 9 shows that the benefits of increased objectivity do not outweigh the costs of reduced adaptability in every instance. Having less adaptability is likely most costly for firms that have a greater need for soft information collection and for firms that derive more value from the advisory roles of directors.

²⁰ We note that SOX requirements and the associated public scrutiny may have also indirectly enhanced a variety of mechanisms that counteract these increased risks. For instance, directors might exert greater effort to proactively detect manipulation, there could be a propensity for judges to award larger punitive damages, or CEOs might face greater reputational penalties for manipulating financial statements. See Agrawal, Jaffe, and Karpoff (1999) and Hazarika, Karpoff and Nahata (2012) for evidence on the efficacy of internal governance. Karpoff and Lott (1999) and Karpoff, Lee, and Martin (2008b) provide evidence on punitive damages and reputation effects.

The results of our study show that distant boards rely heavily on the stock market for indications of managerial performance. While this reliance does provide an objective benchmark for assessment, the outsourcing of governance to the stock market could render boards redundant as a governance mechanism. In this manner, directors lose their “voice” (Bhide (1993), Coffee (1991)). Consistent with this argument, we observe that CEOs of firms with more distant monitoring directors are offered more stock-market based (“calculative”) compensation packages, potentially giving rise to managerial short-termism and undermining credible contracting (Williamson, (2008)).

A growing body of empirical evidence indicates that executives have stronger incentives to commit financial fraud when they are given powerful equity-based incentives (Cheng and Warfield (2005), Bergstresser and Philippon (2006), Burns and Kedia (2006), and Johnson et al. (2009)). Becker’s (1968) economic theory of crime suggests that agents commit crime because the expected utility of the payoff exceeds the expected disutility of getting caught. Taken together, SOX board requirements, by increasing monitoring director distance and prompting boards to rely more on stock-based CEO compensation, may have had the unfortunate effect of increasing the marginal propensity to manage earnings.

Lastly, SOX may have inadvertently impacted the coordination of the board’s dual role as a monitor of and an advisor to top management. We observe that the proportion of monitoring directors located more than 100 kilometers from headquarters increased after the implementation of SOX. But the directors who did not sit on a monitoring committee generally remained at a stable distance from headquarters. This created a growing geographical wedge between the monitoring and advising board members. The increasing bifurcation of the board may have

pushed firms towards a *de facto* two-tier board structure that was different from what firms would have optimally chosen in equilibrium.

Adams and Ferreira (2007) show theoretically that, relative to an optimal (unconstrained) level of monitoring, a two-tier system gives rise to too little monitoring. However, Adams and Ferreira also argue that firms with strong advisory needs may benefit in a constrained sense from a two-tier board and that such firms in equilibrium may use committees to approximate a two-tier structure. To the extent that SOX has pushed some firms towards a *de facto* two-tier system, the model of Adams and Ferreira (2007) suggests that these firms experience suboptimal monitoring relative to their equilibrium level. In addition, geographic distance between monitoring directors and inside directors reduces the ability for the former to obtain useful soft information from the latter (Raheja (2005)), further undermining the efficacy of monitoring. Thus, the geographical divide between directors on monitoring committees and other board members gives a possible explanation for the previous finding in the literature that SOX had a negative effect on the performance of difficult-to-monitor firms (Duchin, et al. (2010)). The bifurcation of boards also raises questions about board balance, impaired communications, and costlier cooperation (Langevoort (2001)).

7. Conclusion

We document that, following the implementation of SOX, monitoring directors generally became more remote from headquarters as firms changed their boards to comply with new independence and competence mandates. Consistent with the presence of geography-based supply constraints in the director labor market, the increases in board distance were most significant for firms not headquartered near a major MSA. Firms that experienced larger

increases in board distance had higher levels of CEO equity-based pay in the post-SOX period. This pattern is consistent with the notion that directors who are more geographically remote are less able to obtain soft information about top management, and they are thus obliged to outsource some of their monitoring function to the stock market. We also document a positive association between post-SOX changes in director distance and increases in the magnitude of discretionary accounting accruals. Regardless of whether the causal explanation for the increase in accruals is a reduction in boards' ability to obtain soft monitoring information or an increase in misreporting incentives fueled by greater reliance on CEO stock-based pay, the results suggest that SOX may have inadvertently heightened the very misreporting risks it was intended to address.

Our findings suggest that the mandatory nature of SOX imposed a substantial and non-uniform cost on certain public companies. To adapt to the new rules, firms not located close to a major MSA were forced to expand the geographic scope of their search for qualified monitoring directors. The resulting changes in board structure altered the governance equilibrium for these firms.

The empirical findings highlight a number of unintended consequences of the Sarbanes-Oxley Act and the associated stock exchange rules. By fostering a shift towards the use of geographically remote monitoring committee board members, the regulations led to a greater dependence on hard stock-price information by the board. Although some reliance on stock returns as a measure of top management performance is an effective governance mechanism, it was arguably the overreliance on stock-based incentives at firms such as WorldCom, Enron, and Tyco that helped to create the circumstances for the enactment of SOX in the first place.

Lastly, our results underscore that the independence mandates for members of monitoring committees led to a growing geographic separation between monitoring directors and other board

members. Creating geographic distance between monitoring directors and other directors (and from management) not only increases directors' cost of acquiring soft information, but also quite possibly impairs the board's ability to use that information towards the fulfillment of monitoring and advising roles.

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Table 1: Director Characteristics at Two Publicly-Traded Firms

This table shows the residential locations, educational degrees, and other characteristics of outside directors for two publicly-traded technology firms headquartered near Silicon Valley, California, as of 2007. Residential location data are obtained from the LexisNexis *Person Locator* database using individual names and birthdates identified from public sources. We do not list city and zip code of residence out of respect for privacy. Director distances are calculated as geodesic distances using latitudes and longitudes corresponding to zip codes. Other data are from proxy statements and *BoardEx*.

		Age	Tenure on the board (years)	CEO or Director of Another Public Company?	Graduate Degree(s) Held	Location of Residence	Geodesic Distance from Headquarters (km.)
Firm A SIC code: 367 Total Assets: \$5,862.4 M Headquarters: San Jose, CA	Director #1	68	6	yes	JD, MBA	xxxx, FL	4,092.0
	Director #2	68	6	no	LLB	xxxx, GA	3,380.1
	Director #3	60	10	yes	JD	xxxx, CA	52.5
	Director #4	60	2	no	MA	xxxx, NV	277.0
	Director #5	64	12	yes		xxxx, CA	16.9
	Director #6	70	6	no		xxxx, AL	3,161.0
	Director #7	58	4	yes	MBA	xxxx, MA	4,288.5
							Median: 3,380.1
Firm B SIC code: 367 Total Assets: \$339.4 M Headquarters: Mountain View, CA	Director #1	63	3	yes		xxxx, CA	26.3
	Director #2	65	7	yes	PHD	xxxx, AZ	968.2
	Director #3	63	18	no	n/a	n/a	n/a
	Director #4	52	9	no	MA	xxxx, CA	26.0
							Median: 26.3

Table 2: Summary Statistics for Firm, CEO, and Board Characteristics

This table reports summary statistics for the geographic distance of directors from headquarters, directors' qualifications, and firm characteristics for a sample of 4,656 firm-year observations during 1998-2007. Distance statistics are based on the locations of monitoring directors (i.e., non-CEO directors belonging to the nominating, audit, or compensation committee). Residential location data are obtained from the LexisNexis *Person Locator* database using individual names and birthdates identified from public sources. Distances are calculated as geodesic distances based on latitudes and longitudes. Other data are from SEC proxy filings, *Board Analyst*, *BoardEx*, and Compustat. For each firm-year, Compustat data on firm characteristics are measured as of the immediately preceding fiscal-year-end. *Sales growth* and *Standard deviation of sales-to-assets* are measured using data over the past three years. *Delaware incorporation* is an indicator variable equal to 1 if the firm is incorporated in Delaware. *Unaffiliated blockholder ownership* is the percentage of shares held in blocks of 5% or more by shareholders with no current or past business ties to the firm. *Independent directors* is the percentage of directors on the board who are deemed independent according to the applicable NYSE or Nasdaq regulatory definitions.

	Obs.	Mean	S.D.	Percentiles		
				25 th	50 th	75 th
<i>Firm and CEO Characteristics</i>						
Total assets (\$M)	4,574	18,545	97,905	520	1,387	5,374
Firm age (years from founding)	4,656	47.3	39.6	17	34	74
Distance, HQ to closest Top-25 MSA (km.)	4,646	91.1	119.9	13.3	32.6	144.0
Distance, HQ to closest airport hub (km.)	4,558	29.7	32.8	14.2	22.2	32.6
Annual sales growth (%)	4,336	13.2	19.7	2.8	9.6	19.0
Return on assets	4,574	0.051	0.100	0.018	0.048	0.091
Std. deviation of sales-to-assets	4,432	0.089	0.108	0.024	0.058	0.113
Leverage	4,554	0.180	0.160	0.028	0.156	0.289
Absolute discretionary accruals	3,754	0.054	0.065	0.015	0.035	0.068
Delaware incorporation	4,656	0.52	0.50	0.0	1.0	1.0
Unaffiliated blockholder ownership (%)	4,646	16.16	13.64	5.60	14.39	24.53
CEO age	4,591	54.79	7.33	50	55	60
CEO tenure on the board	4,590	10.33	8.82	4	8	15
Non-CEO chairman	4,656	0.31	0.46	0.00	0.00	1.00

(continued)

Table 2, continued

	Obs.	Mean	S.D.	Percentiles		
				25 th	50 th	75 th
<i>Board Characteristics</i>						
Board size	4,656	9.5	3.0	7.0	9.0	11.0
Monitoring directors (%)	4,656	74.8	13.9	66.7	77.8	85.7
Independent directors (%)	4,612	66.5	17.2	55.6	66.7	80.0
% of directors who are CEO of another quoted company	4,646	7.9	10.6	0.0	0.0	12.5
% of directors who are financial experts	4,646	14.6	13.6	0.0	12.5	22.2
Median number of board seats at external quoted companies	4,468	0.99	1.32	0.00	0.00	2.00
Median director age	4,655	59.30	4.84	56.50	59.50	62.00
Median director tenure on the board	4,655	7.42	4.30	4.50	7.00	9.00
<i>Director Distance</i>						
Median distance (km) from HQ, all directors	4,640	614.6	807.6	43.3	262.6	943.4
Median distance (km) from HQ, monitoring directors	4,636	746.6	863.9	64.3	453.7	1,166.6
Median distance (km) from HQ, non-monitoring directors	4,366	476.6	808.5	12.9	44.4	643.5
% of directors more than 100 km from HQ	4,640	56.8	26.8	37.5	57.1	77.8
% of monitoring directors more than 100 km from HQ	4,636	62.6	29.5	40.0	66.7	85.7
% of non-monitoring directors more than 100 km from HQ	4,366	36.6	39.2	0.0	28.6	66.7

Table 3: Summary Statistics on Board Composition and Distance, 1998-2007

This table reports year-by-year averages of board characteristics and board distance measures for 1998-2007. The overall sample consists of 4,656 firm-year observations. Monitoring directors are defined as non-CEO directors belonging to the nominating, audit, or compensation committees. Distances are based on primary residence addresses obtained from the LexisNexis *Person Locator* database using individual names and birthdates identified from public sources. Distances are calculated as geodesic distances based on latitudes and longitudes. Panel A reports averages across all available firm-years. Panel B reports averages according to board distance and whether a firm was compliant with the SOX mandates and exchange rules in 2002. A firm is deemed to be compliant if it has a fully independent audit committee and majority-independent compensation and nominating committees. Panel C reports averages according to board distance and whether a firm's Net PP&E-to-assets ratio was in the top or bottom tercile in 2002. In Panel D, averages are reported according to whether a firm's headquarters is located within 100 kilometers of a Top-25 Metropolitan Statistical Area (MSA).

Panel A: Average Characteristics Across All Firms, by Year										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Board size	9.4	9.5	9.4	9.2	9.7	10.25	9.3	9.4	9.5	9.6
Board has all 3 key committees (audit, nominating, compensation)	48.3	53.2	53.4	56.6	64.3	84.9	97.1	98.3	98.2	96.7
% of board members who are monitoring directors	78.6	78.1	78.2	77.8	75.0	68.2	72.6	72.3	73.0	72.4
Median distance of monitoring directors from HQ (km.)	648.1	673.3	691.5	721.4	766.0	754.2	766.6	788.9	861.8	820.2
Median distance of non-monitoring directors from HQ (km.)	462.7	481.5	508.7	484.6	488.2	524.4	460.1	434.4	468.3	441.6
% of monitoring directors located > 100 km. from HQ	56.6	58.5	59.6	60.4	62.2	64.1	65.1	66.1	68.1	67.4
% of non-monitoring directors located > 100 km. from HQ	34.0	34.6	35.8	36.5	38.0	41.2	36.9	35.9	37.5	35.7

(continued)

Table 3, continued

Panel B: Annual Average Distances, By Compliance Status in 2002										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<i>Compliant with independence standards</i>										
% of monitoring directors located > 100 km from HQ	61.2	60.0	60.4	62.2	66.1	63.7	65.6	66.4	67.9	66.7
% of non-monitoring directors located > 100 km from HQ	41.6	38.4	38.1	37.9	38.7	42.6	34.7	33.9	34.6	34.7
<i>Noncompliant</i>										
% of monitoring directors located > 100 km from HQ	56.1	58.9	59.1	58.1	57.6	62.5	63.7	65.1	69.0	69.5
% of non-monitoring directors located > 100 km from HQ	31.3	35.0	34.2	38.1	38.1	38.9	43.4	41.8	46.9	34.8
Panel C: Annual Average Distances, By Degree of Capital Intensity										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<i>High capital intensity</i>										
% of monitoring directors located > 100 km from HQ	64.0	65.1	65.1	66.3	68.1	69.6	69.4	71.4	71.2	68.0
% of non-monitoring directors located > 100 km from HQ	39.7	38.9	42.1	41.2	39.2	46.4	39.6	39.1	38.4	35.4
<i>Low capital intensity</i>										
% of monitoring directors located > 100 km from HQ	50.7	52.8	52.9	54.4	54.7	58.4	60.1	62.5	64.1	64.5
% of non-monitoring directors located > 100 km from HQ	36.3	36.2	37.5	38.7	42.8	40.7	37.2	36.1	42.3	38.6

Table 3, continued

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<i>HQ is less than 100 km. from a large MSA</i>										
% of monitoring directors located > 100 km from HQ	55.1	56.6	57.6	58.3	59.9	62.0	62.4	62.8	66.1	65.5
% of non-monitoring directors located > 100 km from HQ	33.5	32.6	35.1	35.5	36.7	41.0	35.9	36.0	37.0	37.2
<i>HQ is more than 100 km. from a large MSA</i>										
% of monitoring directors located > 100 km from HQ	61.1	63.8	65.0	65.7	67.8	69.1	72.2	74.9	74.2	72.5
% of non-monitoring directors located > 100 km from HQ	35.1	38.6	37.1	38.2	41.3	41.7	39.4	36.1	40.9	32.4

Table 4: Average Board Distances Before and After Implementation of the SOX Requirements

This table reports difference-in-differences estimates for average board distances of control and treatment groups before and after the required implementation of the Sarbanes-Oxley mandates and the NYSE and NASDAQ rules. Board distance is computed as the fraction of monitoring directors (i.e., directors who belong to at least one of the nominating, audit, or compensation committees) who live more than 100 kilometers from headquarters. Data on individual directors' residential locations are obtained from the LexisNexis *Person Locator* database, and distances are calculated as geodesic distances (in kilometers) using latitudes and longitudes corresponding to zip codes. In Columns (1) through (3), a board is considered to be compliant in 2002 if it has a totally independent audit committee and majority-independent compensation and nominating committees. In Columns (4) through (6), a firm has high (low) capital intensity if the ratio of Net PP&E to total assets is above (below) the 2002 sample median. In Columns (7) through (9), a firm is proximate to a large MSA if its headquarters is located within 100 kilometers of one of the top 25 most populous Metropolitan Statistical Areas (MSAs). Standard errors are reported in parentheses.

	Board Distance, by Compliance Status in 2002			Board Distance, by Degree of Capital Intensity in 2002			Board Distance, by 2002 Proximity of HQ to Nearest Top-25 MSA		
	Compliant (1)	Non- Compliant (2)	Diff (3)	High (4)	Low (5)	Diff (6)	Near (7)	Far (8)	Diff (9)
Fraction of monitoring directors more than 100 km from HQ, 2002	0.659 (0.018)	0.575 (0.024)	-0.084 (0.030)	0.667 (0.020)	0.586 (0.020)	-0.079 (0.028)	0.599 (0.016)	0.678 (0.024)	0.079 (0.029)
Fraction of monitoring directors more than 100 km from HQ, 2005	0.678 (0.018)	0.638 (0.023)	-0.041 (0.029)	0.696 (0.019)	0.645 (0.019)	-0.052 (0.027)	0.628 (0.016)	0.749 (0.022)	0.121 (0.027)
Chg. in mean fraction of distant monitoring directors, 2002 to 2005	0.019 (0.025)	0.062 (0.032)	0.043 (0.021)	0.031 (0.027)	0.058 (0.027)	0.028 (0.020)	0.029 (0.022)	0.070 (0.035)	0.041 (0.020)

Table 5: Board Distance and the SOX and Exchange Rules

This table reports the results of fixed-effects panel regressions relating board distance between 1998 and 2007 to the passage of SOX board structure mandates and related exchange rules. Board distance is measured as the fraction of monitoring directors (i.e., non-CEO members of the nominating, audit, or compensation committee) who reside more than 100 kilometers from headquarters. Individual director distances are calculated using latitudes and longitudes corresponding to zip codes drawn from the LexisNexis Person Locator database. Each regression controls for firm, board, and CEO characteristics drawn from SEC proxy filings, *Board Analyst*, *BoardEx*, and Compustat. *Non-Compliant* is an indicator variable equal to 1 if a firm was not in compliance in 2002 with the SOX mandates and exchange rules regarding committee independence. *Remote HQ* is an indicator variable equal to 1 if a firm's headquarters was located more than 100 kilometers from the nearest Top-25 MSA in 2002. *Low capital intensity* is an indicator equal to 1 if a firm's 2002 ratio of Net PP&E to total assets was below the sample median. Other variables are as described in Table 2. *T*-statistics, reported in parentheses, are based on robust standard errors clustered by firm. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

Independent Variable	(1)	(2)	(3)	(2)
<i>Non-compliant</i> × Post-SOX dummy	0.030*** (3.01)			0.028*** (2.76)
<i>Remote HQ</i> × Post-SOX dummy		0.030*** (3.19)		0.033*** (3.35)
<i>Low capital intensity</i> × Post-SOX dummy			0.021** (2.28)	0.028*** (2.88)
Log(Total assets)	-0.004 (-0.58)	-0.007 (-0.96)	-0.010 (-1.29)	-0.006 (-0.84)
Leverage	-0.042 (-1.18)	-0.021 (-0.61)	-0.024 (-0.68)	-0.043 (-1.21)
Board size	0.005*** (2.91)	0.004*** (2.92)	0.004*** (2.74)	0.005*** (2.97)
ROA	-0.023 (-0.67)	0.031 (0.90)	0.029 (0.85)	-0.023 (-0.65)
Delaware incorporation	-0.006 (-0.21)	0.024 (0.79)	0.025 (0.83)	-0.005 (-0.18)
Log unaffiliated blockholder ownership	-0.001 (-0.27)	0.0001 (0.05)	0.0003 (0.14)	-0.001 (-0.35)
Log(Company age)	-0.025 (-1.53)	-0.014 (-0.91)	-0.023 (-1.49)	-0.031* (-1.84)
Non-CEO chairman	0.017** (2.15)	0.016** (2.16)	0.016** (2.13)	0.016** (1.99)
Log(CEO tenure)	0.002 (0.55)	0.003 (0.70)	0.003 (0.85)	0.003 (0.75)
Clustered standard errors	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	3,907	4,375	4,213	3,823
Groups	419	474	455	409
Within R^2	0.088	0.087	0.084	0.092

Table 6: Changes in Board Distance and the Structure of CEO Compensation

This table shows the results of fixed-effects panel regressions explaining the structure of CEO compensation from 1998-2007 in terms of the change in board distance surrounding SOX and other firm and board characteristics. $\Delta Board\ distance$ is the change between 2002 to 2005 in the fraction of monitoring directors (i.e., members of the nominating, audit, or compensation committee) who reside more than 100 kilometers from headquarters. Individual director distances are calculated from latitudes and longitudes corresponding to zip codes drawn from LexisNexis *Person Locator*. Cash-based pay is the sum of the CEO's salary and bonus. Option pay is the Black-Scholes value of options granted to the CEO during the year. Equity pay is the sum of option pay and the value of restricted share grants. Total pay is the sum of cash-based pay, equity pay, LTIP payouts, and other compensation. The intensity of option (equity) pay is the ratio of option (equity) pay to total pay. T-statistics, reported in parentheses, are based on robust errors clustered at the firm level. *, **, and *** denote statistical significance at 10%, 5%, and 1%.

Continued

Table 6, continued

Independent Variable	Log Total Pay (1)	Log Cash-based Pay (2)	Log Options Pay (3)	Log Equity Pay (4)	Intensity of Option Pay (5)	Intensity of Equity Pay (6)
Δ Board distance \times Post-SOX	-0.350 (-1.18)	-0.226 (-1.52)	2.032*** (3.13)	1.446** (2.29)	0.138*** (2.63)	0.152*** (2.69)
Log(Total assets)	0.268*** (3.63)	0.181*** (3.76)	0.354** (2.13)	0.229 (1.51)	0.019 (1.47)	0.011 (0.80)
Leverage	-0.338* (-1.81)	-0.274* (-1.67)	-0.301 (-0.51)	-0.227 (-0.41)	0.011 (0.24)	0.004 (0.08)
Return on assets	0.877*** (3.10)	0.785** (2.19)	2.351*** (3.07)	2.352*** (3.39)	0.086 (1.27)	0.113* (1.72)
Log of unaffiliated blockholder ownership	0.021 (0.92)	-0.007 (-0.42)	0.008 (0.15)	0.022 (0.42)	0.001 (0.27)	0.005 (1.05)
Delaware incorporation	0.159 (1.25)	-0.224 (-0.96)	0.567 (1.19)	-0.093 (-0.23)	0.060* (1.68)	0.055 (1.48)
Classified board	-0.021 (-0.12)	0.062 (0.51)	0.614* (1.84)	0.316 (1.07)	0.016 (0.66)	0.017 (0.65)
Log(CEO age)	-0.757*** (-2.87)	-0.624** (-2.50)	-1.768** (-2.17)	-2.631*** (-3.29)	-0.184*** (-2.96)	-0.283*** (-4.22)
Log(CEO tenure)	0.062 (1.39)	0.083*** (2.72)	0.231* (1.93)	0.312*** (2.61)	0.020** (2.15)	0.021** (2.13)
Independent directors (%)	0.175 (0.73)	0.091 (0.64)	0.667 (1.26)	0.861* (1.74)	0.099** (2.38)	0.087** (1.96)

(Continued)

Table 6, continued

Non-CEO Chairman	-0.063 (-1.16)	-0.045 (-0.91)	-0.216 (-1.13)	-0.231 (-1.30)	-0.006 (-0.38)	-0.019 (-1.13)
Net PP&E to total assets	-0.437 (-1.32)	-0.660** (-2.48)	-1.566 (-1.47)	-0.833 (-0.80)	-0.024 (-0.28)	0.016 (0.17)
Log(firm age)	-0.402** (-2.07)	-0.113 (-1.15)	-0.728* (-1.71)	-0.335 (-0.89)	-0.063** (-2.08)	-0.034 (-1.01)
Clustered standard errors	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,577	3,579	3,477	3,475	3,475	3,473
Groups	415	415	415	415	415	415
Within R ²	0.056	0.086	0.090	0.033	0.135	0.044

Table 7: Accounting Accruals Before and After the SOX and Exchange Mandates

This table shows results from univariate comparisons of absolute abnormal accruals for 2005 (post-SOX) versus 2002 (pre-SOX). Comparisons are reported for the overall sample as well as for subsamples according to (i) whether or not a firm was compliant with SOX in 2002 and (ii) whether or not a firm experienced an above-median increase in board distance. A board is considered to be compliant in 2002 if it has a totally independent audit committee as well as majority-independent compensation and nominating committees. Board distance is measured as the fraction of monitoring directors (i.e., members of the nominating, audit, or compensation committee) who reside more than 100 kilometers from headquarters. Accounting accruals are calculated as the absolute value of discretionary accruals obtained from a Modified Jones (1991) Model. Following Bergstresser and Philippon (2006), discretionary accruals for a firm-year are computed as the difference between a firm's actual total accruals and total accruals predicted from a regression model using all Compustat firms during the year.

	Pre-SOX		Post-SOX		T-test		Wilcoxon Test	
	Mean	Median	Mean	Median	Diff. in Means	p-value	Diff. in Medians	p-value
All firms	0.055	0.034	0.043	0.029	-0.012	0.001	-0.005	0.004
Firms compliant in 2002								
All compliant firms	0.060	0.037	0.045	0.030	-0.014	0.003	-0.007	0.006
High change in board distance	0.064	0.041	0.048	0.030	-0.016	0.027	-0.011	0.022
Low change in board distance	0.057	0.035	0.044	0.030	-0.013	0.046	-0.005	0.109
Firms non-compliant in 2002								
All non-compliant firms	0.046	0.031	0.034	0.025	-0.012	0.030	-0.006	0.068
High change in board distance	0.044	0.031	0.030	0.023	-0.014	0.057	-0.008	0.104
Low change in board distance	0.047	0.029	0.036	0.026	-0.012	0.164	-0.003	0.380

Table 8: Compliance with Mandates, Board Distance, and Abnormal Accruals

This table shows the results of fixed-effects panel regressions relating the magnitude of accounting accruals over 1998-2007 to the change in board distance surrounding SOX and the compliance or noncompliance with SOX in 2002. $\Delta Board\ distance$ is the 2002-2005 change in the fraction of monitoring directors who reside more than 100 kilometers from headquarters. Individual director distances are calculated from latitudes and longitudes corresponding to zip codes drawn from LexisNexis *Person Locator*. *High $\Delta Board\ distance$* (*Low $\Delta Board\ distance$*) is an indicator variable equal to 1 if $\Delta Board\ distance$ is above (below) the sample median. *Non-compliant* is an indicator variable equal to 1 if a firm was not in compliance in 2002 with the SOX and exchange rules requiring committee independence. Columns (1), (2), and (3) show regressions using the full sample of available firm-years. Columns (4) and (5), respectively, show the results for regressions on subsamples for which *High $\Delta Board\ distance$* = 1 or for which *Low $\Delta Board\ distance$* = 1. Each regression includes firm fixed effects and year fixed effects. Data on control variables for firm, board, and CEO characteristics are drawn from SEC proxy filings, Board Analyst, BoardEx, and Compustat. *T*-statistics, reported in parentheses, are based on robust standard errors clustered by firm. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

Table 8, continued

	All Firms			High ΔBoard Distance	Low ΔBoard Distance
	(1)	(2)	(3)	(4)	(5)
<i>Non-compliant</i> × Post-SOX	-0.010** (-2.37)			-0.004 (-0.71)	-0.015** (-2.54)
ΔBoard distance × Post-SOX		0.043** (2.10)			
High ΔBoard distance × <i>Non-compliant</i> × Post-SOX			-0.004 (-0.67)		
Low ΔBoard distance × <i>Non-compliant</i> × Post-SOX			-0.014*** (-2.62)		
Log(Total assets)	0.004 (0.81)	0.002 (0.35)	0.004 (0.85)	0.009 (1.20)	-0.002 (-0.28)
Leverage	-0.019 (-1.48)	-0.025* (-1.92)	-0.020 (-1.51)	-0.005 (-0.28)	-0.037** (-2.05)
Return on assets	0.005 (0.19)	-0.003 (-0.12)	0.005 (0.20)	-0.012 (-0.35)	0.015 (0.43)
Sales growth, 3-year avg.	0.037*** (4.30)	0.037*** (4.19)	0.036*** (4.29)	0.027** (2.35)	0.049*** (4.13)
Std. deviation of sales-to-assets	0.093*** (6.28)	0.078*** (5.11)	0.093*** (6.27)	0.070*** (3.03)	0.114*** (5.72)
Log(Unaffiliated blockownership)	-0.0001 (-0.08)	0.0001 (0.05)	-0.0001 (-0.11)	0.001 (0.81)	-0.002 (-1.09)
Delaware incorporation	0.002 (0.27)	0.003 (0.31)	0.002 (0.29)	-0.004 (-0.35)	0.008 (0.72)
Log(CEO tenure)	-0.0001 (-0.07)	0.0001 (0.05)	-0.0001 (-0.07)	0.002 (1.00)	-0.003 (-1.21)
Independent directors (%)	-0.002 (-0.17)	-0.003 (-0.31)	-0.003 (-0.28)	0.003 (0.17)	-0.013 (-0.90)
Non-CEO chairman	0.0002 (0.04)	0.001 (0.42)	0.0002 (0.06)	0.003 (0.59)	-0.002 (-0.47)
Log(firm age)	-0.005 (-0.82)	-0.005 (-0.78)	-0.006 (-0.88)	-0.014 (-1.50)	0.006 (0.66)
Clustered standard errors	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	3,278	3,214	3,278	1,599	1,679
Groups	409	374	409	198	211
Within R^2	0.075	0.076	0.076	0.058	0.109

Table 9: Market Reaction to Director Appointments: Effects of Appointee Distance, Compliance, and Headquarters Remoteness

This table reports average cumulative abnormal returns (CARs), in percent, surrounding announcements of new appointments of outside directors during 2005-2007. Abnormal returns are calculated using an equal-weighted market model estimated over the 250-day period ending 61 days prior to the announcement day. Announcements of director appointments are identified from news articles in the LexisNexis database. We exclude cases in which multiple director appointments are announced on the same day. A new appointee to a board is defined to be proximate (distant) if the geodesic distance between his residence and the firm's headquarters is less than (greater than) 100 kilometers at the time of appointment. Geodesic distances are calculated using latitudes and longitudes corresponding to zip codes. Zip codes of directors' primary residences are obtained from the LexisNexis *Person Locator* database. A firm is deemed to be compliant in 2002 with the SOX mandates and exchange rules if it has a fully independent audit committee and majority-independent compensation and nominating committees. A firm's headquarters is remote if it is located more than 100 kilometers from the closest large (Top 25) MSA. Numbers in parentheses are Patell Z-statistics. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, under a two-tailed test.

Panel A: By Firms' Compliance Status in 2002 to SOX and Exchange Rules						
Event Window	Compliant Firms			Non-Compliant Firms		
	All Appointees N=287	Proximate Appointees N=94	Distant Appointees N=193	All Appointees N=70	Proximate Appointees N=25	Distant Appointees N=45
(-2,1)	0.28 (1.75)	0.21 (1.10)	0.32 (1.36)	0.26 (0.88)	-0.70 (-0.80)	0.80* (1.70)
(-1,1)	0.19 (1.44)	0.41* (1.88)	0.09 (0.45)	0.31 (0.90)	-0.40 (-0.62)	0.70 (1.58)
(-2,0)	0.20 (1.55)	-0.02 (0.43)	0.31 (1.59)	0.12 (0.63)	-0.54 (-0.82)	0.48 (1.39)

Panel B: By Remoteness of HQ from Top-25 MSAs						
Event Window	Nearest Top-25 MSA < 100 km. from HQ			Nearest Top-25 MSA ≥ 100 km. from HQ		
	All Appointees N=283	Proximate Appointees N=103	Distant Appointees N=180	All Appointees N=84	Proximate Appointees N=19	Distant Appointees N=65
(-2,1)	0.32** (2.21)	-0.14 (0.10)	0.58*** (2.69)	0.24 (0.76)	0.78 (1.09)	0.09 (0.27)
(-1,1)	0.29** (2.25)	0.11 (0.89)	0.39** (2.14)	0.13 (0.50)	0.84 (1.35)	-0.08 (-0.16)
(-2,0)	0.18* (1.72)	-0.26 (-0.57)	0.43*** (2.58)	0.30 (1.16)	0.63 (1.29)	0.20 (0.63)