LOCAL CEOS, CAREER CONCERNS, AND VOLUNTARY DISCLOSURE

by

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To everyone who helped,

thank you.

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I study whether the management guidance provided by local CEOs differs from the guidance provided by nonlocal CEOs. The geographic preferences of the CEOs lead to segmented executive labor markets, which impose higher costs to relocate and give rise to career concerns. I find that local CEOs, who grew up in the same states where the firm headquarters are located, provide fewer items in guidance and less frequent guidance than nonlocal CEOs. I also show that local CEOs have greater asymmetric withholding of bad news relative to good news and that they increase their disclosure during economic downturns in their home states. Collectively, these findings suggest that the geographically segmented CEO labor markets play an important role in disclosure choices of CEOs.

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CHAPTER 1

INTRODUCTION

In the labor market for Chief Executive Officers (CEOs), personal geographic preferences for home states lead a group of CEOs to work in the place where they grew up ("local CEOs", hereafter). At the same time, the location preferences impose higher costs upon job turnovers and give rise to more career concerns for CEOs with such preferences compared to CEOs without such preferences. In this study, I focus on this particular feature of the labor market for CEOs and analyze how it affects managerial voluntary disclosure choices. Specifically, I investigate whether local CEOs provide less or more voluntary disclosure compared to nonlocal CEOs.

In general, managers can reduce career concerns by providing less voluntary disclosure. Local CEOs, who face more career concerns compared to nonlocal CEOs, may further reduce their voluntary disclosure relative to nonlocal CEOs. Less voluntary disclosure might reduce job risk for the following reasons. First, if managers expect that they will be held accountable for their extensive voluntary disclosure, they will be cautious in making disclosure decisions to avoid any negative labor market outcomes (Healy and Palepu, 2001; Song and Thakor, 2006; Hermalin and Weisbach, 2012). In other words, to reduce monitoring from investors and board of directors, managers may prefer to provide less voluntary disclosure. Second, errors in voluntary disclosure can result in loss of reputation (Kasznik, 1999) and can also be associated with job turnovers (Lee et al., 2012). To reduce the probability of making mistakes, managers may choose to provide less disclosure. Third, literature suggests that career concerns force managers to withhold bad news (Kothari et al., 2009; Ali et al., 2015; Baginski et al., 2018). If corporate events turn in managers' favor so that they do not have to announce the bad news at all, we might observe less disclosure issued by managers.

Theoretical papers that study how career concerns shape information disclosure argue that CEO's willingness to disclose information is restricted by their career concerns (Song

and Thakor, 2006; Adams and Ferreira, 2007). Ideally, the relation between career concerns and management voluntary disclosure can be empirically tested if we are able to directly measure the managers' career concerns. Unfortunately, a manager's concern is not observable and therefore inherently difficult to measure. The innovation in this study is to measure managers' career concerns based on their personal geographic preferences, which directly lead to the disutility of job turnovers and creates more career concerns for these managers.

I follow Yonker (2017b) to identify the CEOs with stronger geographic preferences, i.e., local CEOs. Yonker (2017b) uses partial social security number information to identify the state which issued the number. The issuance state is likely to be the state where a CEO was born, and more likely, where a CEO grew up. If a CEO works for a firm headquartered in the same state as the social security number issuance state, I consider such a CEO to be a local CEO. Based on the sample, nearly 30% of the public firms are managed by local CEOs from 1997 to 2007. This ratio fluctuates between 28% and 31% during the sample period.

To test the hypothesis that local CEOs differ from nonlocal CEOs with respect to voluntary disclosure choices, I construct two measures of management voluntary disclosure using the I/B/E/S Guidance dataset, including the number of items in management guidance (*GuidanceNum*) and the frequency of guidance issuance (*GuidanceFreq*). On each guidance announcement date, managers can provide forecasts on multiple financial items, such as earnings per share, sales, capital expenditure, and so on. *GuidanceNum* counts each item and calculates the total number of items provided by the managers for the coming fiscal year. In contrast, *GuidanceFreq* measures the frequency of guidance issuance. It counts each announcement as one unit, regardless of how many financial items are discussed on each announcement date.

My first set of findings shows that, compared to the nonlocal CEOs, the local CEOs on average provide forecasts on fewer items in guidance and issue less frequent guidance. More specifically, the results show that the local CEOs on average provide about 20% fewer items

in their guidance. I also find that local CEOs issue 17% less frequent guidance compared to the nonlocal CEOs.

It is possible that some firm factors can determine both the disclosure choices of a firm and the type of CEO hired by the firm. For example, a firm that has local based business strategy might tend to hire a local manager. Such a firm might also tend to issue less guidance because it is potentially small size. In this case, we observe the negative relation between local CEOs and management voluntary disclosure. However, this negative relation can be related to a firm's business strategy, which is difficult to measure empirically. If the match between the local CEOs and the firms is determined by such unobserved matching factors, my specification will be subject to endogenous concerns due to omitted variables. To address this type of endogeneity concern, I utilize an instrumental variable identification strategy. I use state population in the distant past as a percentage of the U.S. national population during the same period (e.g., four decades ago, approximately when the CEO obtained SSN) as the instrument. This variable is likely to capture the unconditional probability of hiring an individual from a given state based on the historical demographics of the population in the US. While this instrument is positively associated with a CEO being hired locally, it is unlikely to be directly related to a firm's current disclosure policy. The IV analyses show that the instrumented local CEO variable is negatively related to both the number of items in guidance and the guidance frequency.

In another robustness check, I estimate how much the difference in guidance would be if the CEOs were randomly assigned to a local and nonlocal CEO group. To estimate, I assign a manager to a local or nonlocal CEO group randomly based on the actual distribution of the local and nonlocal CEOs. The results show that there is no difference in guidance by randomly defined local and nonlocal CEOs. This evidence basically indicates the baseline results are unlikely to be created by randomness and that the local CEOs differ from the nonlocal CEOs in management voluntary disclosure.

While these findings show significant differences between local and nonlocal CEOs with respect to their voluntary disclosure choices, they do not address whether the differences are due to more career concerns by local CEOs relative to nonlocal CEOs, or due to other channels that local CEOs can utilize to better connect to their investors. The following two tests attempt to examine these two possible explanations.

To further investigate whether career concern hypothesis can explain the disclosure gap between local CEOs and nonlocal CEOs, I compare bad news withholding behavior by both CEO types, inferred from the market reactions to their earnings forecast announcements (Kothari et al., 2009). The results show that the local CEOs withhold more bad news relative to good news, which supports the career concern explanation and suggests that geographically segmented labor markets play an important role in the CEOs' disclosure choices.

It is possible that local CEOs have lower costs to reach out to investors through private communication, therefore less likely to rely on public management voluntary disclosure. This possible explanation relies on two conditions. First, the investors are locally concentrated. Earlier literature documents that investors own or trade stocks of nearby firms (Coval and Moskowitz, 1999, 2001; Ivković and Weisbenner, 2005). Second, the local CEOs are more likely to have local-based social networks in their home states (Pool et al., 2012; Yonker, 2017a,b). In this case, local CEOs are more likely to substitute some management guidance efforts with their private communication, therefore issue less guidance than nonlocal CEOs. Because we do not observe the managers' social networks or their informal interactions with their investors, I conduct a test based on a structural break due to Regulation FD that aims to curb selective disclosure. The implementation of Reg FD can potentially reduce local CEOs' propensity to privately interact with local investors and therefore increase their incentive for public voluntary disclosure. If private communication is the explanation for less voluntary disclosure by local CEOs, we should be able to see the difference in voluntary disclosure between the two groups to decrease or disappear after Reg FD. I find that

magnitude of differences between local and nonlocal CEOs continue to hold in years following the implementation of regulation FD, suggesting that private communication advantage might not be able to well explain the differences between local and nonlocal CEOs in their disclosure choices.

In the last set of tests, I investigate whether local CEOs increase their disclosure if they have temporary career concern relief. I use a setting in which the headquarter states go through economic downturns and test whether the disclosure gap between local and nonlocal CEOs decreases. Bad firm performance tends to increase the job risk in general cases, for both local and nonlocal CEOs. However, if the bad performance can be attributed to macroeconomic factors that are not in managers' control, managers would not have as much concern as in the general case. During this temporary career concern relief, especially for local CEOs, I expect a decrease in the gap between local and nonlocal CEOs.[1] The results show that the local CEOs increase their disclosure during economic downturns in their home states.

To better understand the reporting behavior of the local CEOs during home state recessions, I test whether firms' operational geographical dispersions interact with the disclosure gap between local CEOs and nonlocal CEOs, i.e., how the disclosure gap varies with geographical reach of the company. If the company operates in many states as opposed to only a few states, does the local CEO change the disclosure behavior? To execute this test, I categorize the firms into two groups: (1) truly local firms and (2) geographically dispersed firms, using the number of state names mentioned in a firm's 10K filing (Garcia and Norli, 2012). Firms with operations in fewer states are categorized as truly local, while firms with

[1]In another alternative explanation, other incentives might dominate in making the disclosure decisions during the critical times. For instance, the local CEOs may have disproportionately more litigation concerns. Literature has documented that managers tend to provide more forecasts when litigation risk is high (Skinner, 1994, 1997). Thus, the local CEOs are expected to provide more managerial guidance during the worsening of the economic years in their own states. However, the effect of litigation risk on management voluntary disclosure is still unclear in the literature.

operations in more states are considered to be geographically dispersed. The evidence suggests that the increase in guidance provision during economic downturns by the local CEOs is more pronounced in geographically dispersed firms. That is, if a local CEO's state is going through an economic recession, investors of geographically dispersed firms receive more management guidance compared to the investors of truly local firms.

This study contributes to the literature in two distinct ways. First, it shows that CEO labor market affects firm disclosure policies, and career concern is one of the channels through which labor market can affect voluntary disclosure practice. My study is related to prior literature which propose career concerns may affect disclosure practices (Song and Thakor, 2006; Kothari et al., 2009; Hermalin and Weisbach, 2012). Recent studies on this topic show that the asymmetric withholding of bad news relative to good news is more pronounced in states with stricter enforcement of non-competition agreements (Ali et al., 2015), and the extent to which managers delay the disclosure of bad news is positively associated with multiple proxies for career concerns (Baginski et al., 2018). In contrast, I study a group of managers with more career concerns due to their geographic preferences, and how this group of managers differs in their disclosure behavior.

Second, this study is also related to growing literature that studies the manager-specific effects on firm policy in general, and disclosure policy in particular. Examples from this literature show that a firm changes in guidance policy around its CEO turnover (Brochet et al., 2011), and how managers' age, military service, and their MBA degrees are related to firm disclosure choices (Bamber et al., 2010). The literature call for future research that incorporates "richer roles for individuals' styles which has great potential for increasing our understanding of how firms make financial report choices"(Bamber et al., 2010).

The rest of this paper is organized as follows: Chapter 2 provides a brief literature review and discusses alternative hypotheses as to how local managers may influence corporate guidance provision. Chapter 3 presents data sources, sample selection and definitions of main

variables of interest. Chapter 4 focuses on the empirical models. Chapter 5 discusses the empirical results. Chapter 6 summarizes and offers some concluding remarks.

CHAPTER 2

LITERATURE AND HYPOTHESIS DEVELOPMENT

This study broadly relates to the literature on environmental psychology, labor economics, and accounting. In the literature review, I will discuss how the local CEOs are different from the non-local CEOs. Then I develop testable hypotheses on how the differences between local and non-local CEOs lead to their different voluntary disclosure choices.

2.1 Related Literature

The notion of a local CEO can be related to the environmental psychology literature, which has broadly researched people's *place attachment*. Place attachment is about the feelings that people develop toward the significant places in their lives and much of the research focus on people's residence (Low and Altman, 1992; Manzo, 2005; Manzo and Devine-Wright, 2013). In this case, we expect both local and non-local CEOs have place attachment to the places in which they work as CEOs due to their residence.

At the same time, meaningful places can be where they were born and brought up (Hidalgo and Hernández, 2001), such as a parent's house (e.g. Manzo, 2005, p.74), and they can also extend to large spatial range such as cities (e.g. Hidalgo and Hernández, 2001). The literature has shown that people develop more place attachment/identify over long residency (Hernández et al., 2007). In this case, the states in which the CEOs work means more to local CEOs because they grew up there. Therefore, local CEOs have more place attachment and/or identity compared to nonlocal CEOs due to longer residency in the area. Consequently, local CEOs bear higher psychological costs to relocate (Ulrich, 2010).[1] In the

[1]Ulrich (2010) describes "Place attachment also plays a factor in the personal cost of losing our homes. Losing your home due to ... having to relocate for a job... can feel soul crushing ... rootless, failed, humiliated, and even devastated. We get attached both in feeling and identify."

labor market, such psychological costs can add to the costs upon job turnovers and increase local CEOs' career concerns.

The concept of place attachment has been enriched over decades (e.g. Hidalgo and Hernández, 2001; Hernández et al., 2007; Scannell and Gifford, 2010). More importantly, its applications has reached to various personal decisions and behaviors (e.g. Devine-Wright, 2011; Devine-Wright and Howes, 2010). For example, conservations and resource-management strategies. This study attempts to take a look at another important decisions that the managers make, which is the voluntary disclosure decisions.

The study also relates to the finance literature which has documented evidence that supports local CEOs' geographic preferences, which is in line with the place attachment theory and evidence. CEOs are hired locally five times more often than expected and the local matching can be explained by *geographic preference theory*, which states that local CEOs have preferences for living and working close to home (Yonker, 2017b). The supporting empirical evidence for such a preference include that, local CEOs have lower voluntary job turnovers than nonlocal CEOs, but have no difference in forced turnovers. In addition, local CEOs would accept lower compensation, controlling for ability, which is consistent with that they are willing to have the trade-off between compensation and living close to family and friends. Lastly, firms run by local CEOs do not perform worse or value less than those run by nonlocals. Such preferences for staying also create additional costs upon job turnovers thus increase the local CEOs' career concerns.

The career/job concerns generated from personal attachment or preference are interesting to accounting literature, which might be helpful to provide new insights on managers' voluntary disclosure choices. The literature has been relying on the variation at state-level created by employment law adoptions to infer managers' career concerns (Shaikh, 2015; Ali et al., 2015). The literuature also relies on multiple proxies for career concerns, including firm performance volatility, CEO hiring recency, CEOs age, CEO retirement, CEO hiring

from outside, CEO entrenchment, corporate governance, and CEO pay sensitivity (Pae et al., 2016; Baginski et al., 2018). The local CEOs notion captures variation within a state, by distinguishing the local CEOs and nonlocal CEOs who have different emotional attachment to the state. Equivalently, local CEOs notion captures the heterogeneity in personal geographical preferences (Yonker, 2017b) and consequential career concerns at individual level.

Understanding a manager's role in disclosure choices is important to accounting researchers. Managers have their individual effects on firm policy (Bertrand and Schoar, 2003), and more specifically in disclosure choices (Bamber et al., 2010; Brochet et al., 2011). While the literature has explore various managerial compensation, demographic, educational, or past experience factors in their financial reporting or voluntary disclosure choices (Bergstresser and Philippon, 2006; Bamber et al., 2010), little has been explored about how the managers' labor market conditions affect their disclosure policy. The local CEOs concept represents a geographically segmented labor market for managers, therefore, are suitable for us to understand more about the effect of labor market conditions on the disclosure policy.

2.2 Hypothesis Development

Managers may provide less voluntary disclosure when they face more career concerns for three reasons.

First, if managers expect that they will be held accountable for their extensive voluntary disclosure, they will be cautious in making disclosure decisions to avoid any negative labor market outcomes. Literature has recognized that information disclosure leads to better informed investors and board of directors, who in turn monitor managers more intensively upon availability of more information. Due to this drawback of more disclosure, managers may be reluntant to share information to reduce the monitoring (Adams and Ferreira, 2007). Since more monitoring imposes higher uncertainty on the managers' job security, managers with more job concerns will tend to provide less information disclosure. The monitoring induced

job uncertainty is a valid threat. More disclosure improves the ability of shareholders and boards to monitor their managers and therefore predict that an increase in disclosures will lead to an upward trend in CEO turnover rates (Hermalin and Weisbach, 2012). Managers can release low quality information to the board of director to reduce the monitoring (Song and Thakor, 2006). The incentive to reduce monitoring is also consistent with the discussions about the fact that managers might not be willing to provide more guidance in multi-period setting "if managers expect that a commitment to provide extensive disclosure today could be used to hold them more accountable for any subsequent poor performance" (Healy and Palepu, 2001). Therefore, managers who try to reduce monitoring and the associated job turnover risks might prefer to provide less information voluntarily.

Second, forecast errors in management guidance may result in loss of reputation, and impose risks on managers' job security. Empirical evidence shows that errors in forecasts lead to loss of reputation for the managers (Kasznik, 1999). The probability of CEO turnover is positively associated with the absolute management forecast errors (Lee et al., 2012). Therefore, managers who have more career concerns will try to avoid making mistakes and errors. Holding the other factors as fixed, one way to reduce the probability of making errors is to reduce information disclosure. Therefore, managers might provide less voluntary disclosure to reduce the possibility of making mistakes and to decrease the probability of job turnovers.

Third, literature has suggested that career concerns force managers to withhold bad news. For instance, managers withholding bad news based on asymmetric market reactions to good and bad news in managerial guidance and managers' career concerns might be an explanation (Kothari et al., 2009). Empirical evidence show the asymmetric withholding of bad news relative to good news is more pronounced in states with stricter enforcement of non-competition agreements (Ali et al., 2015). Managers' delaying the disclosure of bad news is positively associated with multiple proxies for career concerns (Baginski et al., 2018).

In this framework, the managers' disclosure choices are not directly observable and we rely on equity market assumptions for inferences. A more observable disclosure choice is that managers withhold information therefore provide less forecasts overall. If the managers withhold bad news until the firm performance turns around to be favorable so they do not have to release the bad news at all, they will overall provide less guidance.

For the above three reasons, managers with more career concerns are expected to provide less information disclosure. Local CEOs, compared to nonlocal CEOs, have greater career concerns due to their geographic preferences and higher costs in relocation upon job turnovers. Based on the above discussions, the first hypothesis is presented below in alternative form.

H1: Local CEOs provide less voluntary disclosure than nonlocal CEOs.

It is possible that local CEOs communicate with their investors using locally-based social networks. Therefore local CEOs do not provide as much management disclosure as the nonlocal CEOs do. The literature documented that investors tend to own or trade stocks of nearby firms and this local bias might be due to information advantage (Coval and Moskowitz, 1999, 2001; Ivković and Weisbenner, 2005). The communication advantage seems to be supported by empirical evidence by information search activities on investors' side. For example, investors search the Internet disproportionately for information about the stocks of local firms (Chi and Shanthikumar, 2016). However, information disclosure on the managers' side has little empirical support. In an attempt to better understand, or potential rule out this communication advantage explanation, this study develops the following hypothesis.

If managers communicate privately to their investors about inside information, Reg FD would make the communication weaker or even disappear. In this case, local managers would switch to provide more public voluntary disclosure after the regulation. Once the

local CEOs increase their voluntary disclosure after Reg FD, we might observe the decrease in the difference of voluntary disclosure by local and nonlocal CEOs. Any empirical results showing the decrease in or disappear of the difference in voluntary disclosure between local and nonlocal CEOs will be consistent with the communication advantage explanation. In contrast, persistently less disclosure by local CEOs is more consistent with career concern hypothesis. The following H2 presents the hypothesis in alternative form.

H2: The difference in voluntary disclosure by local CEOs and nonlocal CEOs decreases after Reg FD.

To provide more evidence supporting the career concern explanation for the difference in information disclosure by local and nonlocal CEOs, this study develops the following two hypotheses using market reactions to news in earnings forecasts. The argument is that if local CEOs have more career concerns, they would like to withhold bad news. If managers accumulate and withhold bad news up to a certain threshold, the market reactions to the bad news disclosure will be greater than good news disclosure (Kothari et al., 2009). This hypothesis is presented in H3(A) in alternative form. Since local CEOs have more career concerns, they are more likely to withhold bad news compared to nonlocal CEOs. This hypothesis is presented in H3(B) in alternative form.

H3(A): Local CEOs withhold bad news.

H3(B): Local CEOs are more likely to withhold bad news than nonlocal CEOs.

The study further explores special circumstances in which local CEOs face less career concerns and other disclosure incentives might dominate the career concerns. Economic downturns usually create abnormal amount of negative news. Local CEOs in this situation might blame the bad performance on the economic conditions that are not in their control therefore face relatively less job risk than during good times. At the same time, managers

might face more litigation risk during adverse economic conditions. Litigation risk can dominate the career concerns in this case since poor performance might be more likely to be justified in a situation when the peer firms have poor performance as well. Literature provides evidence that litigation risks might induce more voluntary disclosures (Skinner, 1994; Field et al., 2005; Cao and Narayanamoorthy, 2011; Donelson et al., 2012). For instance, evidence shows that disclosure potentially deters certain types of litigation (Field et al., 2005). Managers with bad news, facing higher ex ante litigation risk, are more likely to issue a bad news earnings forecast (Cao and Narayanamoorthy, 2011). Earlier revelation of bad earnings news lowers the likelihood of litigation (Donelson et al., 2012). Based on the above discussion, the following H4 is presented in alternative form.

H4: Local CEOs provide more voluntary disclosure during adverse business conditions in their home states.

CHAPTER 3

DATA, SAMPLE AND DEFINITIONS

The data are from several sources. S&P ExecuComp is used to identify CEOs, their demographic and compensation information. CEOs' state-of-origin data are a unique hand-collected dataset to identify the state where CEOs grew up (Yonker, 2017b).[1] I/B/E/S Guidance is used to construct management voluntary disclosure measures. The firm-level accounting data are from CRSP/Compustat Merged dataset and stock return data are from Center for Research on Security Price (CRSP).

3.1 Local CEOs

To identify the local CEOs, I first use the firm headquarter information in CRSP/Compustat Merged database to identify the firm location, equivalently, the state in which the CEOs worked. Second, I use CEO state of origin dataset to identify the state where CEOs grew up. The dataset relies on partial social security number (SSN) to obtain the following information. One is the state where the applicants lived, implied by the first three digits of SSN. The other information is the corresponding year that CEOs obtained their SSNs, implied by the second two digits of SSN.

Figure 3.1 presents the distribution of ages when CEOs obtained their SSNs. It shows that most of the CEOs obtained their SSN during teenage years. About 75% of the CEOs obtained their SSNs during their teen years between age 10 and 17, and about 88% before age 17.[2] These two sets of information most likely indicate the states where the CEOs lived

[1] I am grateful to Professor Scott E. Yonker for sharing his hand-collected CEO origin data.

[2] In the final regression sample, the portion of CEOs who obtained their SSNs before age 17 is about 96%. Only 8% of the CEOs obtained their SSNs after age 21. This last group are categorized as foreign CEOs and they are not considered in this study.

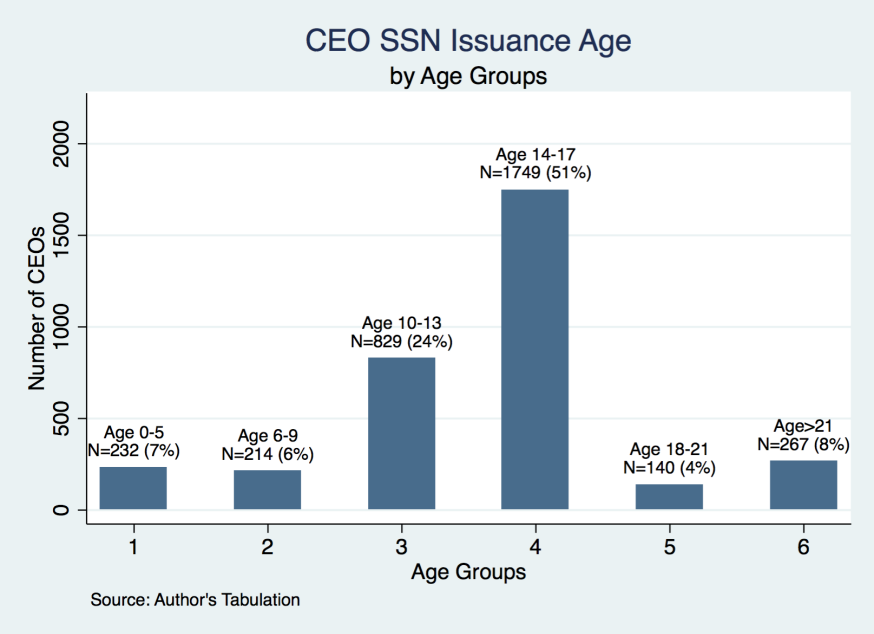

Figure 3.1. CEO Social Security Number (SSN) Issuance Age

during teen years. Therefore, using the state issuing the social security number is a good proxy for the state where a CEO grew up.

I then define local CEO as a dummy variable, which equals 1 if the CEO worked in the same state in which they grew up, and equals 0 otherwise.

3.2 Management Guidance

I construct two voluntary disclosure measures to measure the amount of information that managers are willing to provide to the market, *GuidanceNum* and *GuidanceFreq*. I use Thomson Reuters I/B/E/S Guidance database and focus on annual guidance issued for the coming annual fiscal year end.[3] In each guidance announcement on a given date, managers

[3]A quick check on I/B/E/S Guidance data over years (1992-2015) shows that annual guidance and quarterly guidance are about 60% and 40% of the observations, while semi-annual guidance is less than 1%. The annual guidance can be further categorized into annual short-term guidance, if they are provided for the coming annual fiscal year end, and annual long-term guidance, if they are provided for the fiscal year ends in the future after the coming annual fiscal year end. The annual long-term guidance is less than 7% of the annual guidance. Quarterly guidance is made for a given quarter end. Long term quarterly forecasts

can provide guidance on multiple items (e.g. earnings per share, sales, capital expenditure, cash flows, etc.). *GuidanceNum* is the number of items in guidance. It counts each item as one unit and calculates the total number of items provided for the coming fiscal year end. *GuidanceFreq* is the frequency of guidance issuance. It counts each announcement as one unit, regardless of the number of items in each announcement, then calculates the total number of guidance announcements provided for the coming fiscal year end.

Both *GuidanceNum* and *GuidanceFreq* capture managers' discretion on the amount of information in voluntary disclosure, but to a different extent. Once managers establish a pattern of the frequency of guidance issuance, they will be cautious to skip or stop guidance, which usually has market consequences for investors and analysts. Literature suggests that the decision to stop providing guidance is due to the presence of unfavorable information (Kasznik and Lev, 1995). Evidence also shows the adverse market consequences of discontinuing guidance (Chen et al., 2011). In contrast, managers can maintain the same guidance issuance frequency but choose to provide forecasts on more or fewer items in each announcement. *GuidanceNum* is designed to capture such discretion, which may be important to managers, especially during unfavorable economic conditions. Therefore, these two measures provide us with a complementary view on manager's discretion over the amount of information through voluntary disclosure.[4]

(more than 4 quarters in the future) are rare in the dataset. This study focuses on the annual short-term guidance.

[4]More frequent forecasts or forecasts on more items can provide more information to the investors. It can signal higher quality of disclosure in terms of transparency and accuracy. A similar definition has been used in previous studies (Bamber et al., 2010; Anantharaman and Zhang, 2011). Bamber et al. (2010) define a frequency measure which measures "the number of earnings-related forecasts the firms issues during the year" (pp. 1139, 1141). They have the average frequency of 1.77 during their sample period 1995-2005. This study has the average of 2.04 during years 1997-2007 based on similar definition of *GuidanceFreq*. Anantharaman and Zhang (2011) define the number of guidances to "include every valid entry in the database as a separate unit of guidance, regardless of its type (e.g., earnings per share or cash flow per share), horizon (e.g., for the current quarter or for the next year), nature (e.g., qualitative or quantitative), or timing (e.g., issued on the same date). Therefore, we incorporate in our metric of disclosure not only the frequency of guidance, but also its richness, scope, or quality." (p. 1855).

3.3 Sample and Summary Statistics

After merging management guidance data with the CEO origin data, and further eliminating observations with missing control variables, I have 5,649 firm-year observations from 1997 to 2007. Table 3.1 reports the summary statistics on the guidance measures for all samples, and also for subsamples with local CEO and nonlocal CEO, respectively.

Table 3.1. Summary Statistics: Key Variables

Variable	Count	Mean	Std. Dev.	Min	Max	25%	50%	75%
Panel A: Firm Guidance Measures								
Guidances, All sample firms (N=5,649)								
GuidanceNum	5649	2.905	3.553	0	31	0	1	5
GuidanceFreq	5649	2.045	2.259	0	23	0	1	4
Guidances, local CEO firms (N=1,682)								
GuidanceNum	1682	2.505	3.203	0	18	0	1	4
GuidanceFreq	1682	1.798	2.064	0	15	0	1	3
Guidances, nonlocal CEO firms (N=3,967)								
GuidanceNum	3967	3.075	3.678	0	31	0	2	5
GuidanceFreq	3967	2.149	2.329	0	23	0	1	4
Panel B: Control Variables								
Control Variables, All sample firms (N=5,649)								
Size	5649	7.281	1.522	2.849	13.041	6.263	7.076	8.162
LogSale	5649	6.970	1.485	0.636	12.754	5.974	6.864	7.900
LagMarketBook	5649	0.937	3.802	0.002	85.734	0.056	0.140	0.436
LagQ	5649	2.496	3.270	0.453	105.090	1.321	1.809	2.716
NetIncome	5649	0.036	0.175	-5.880	0.578	0.020	0.054	0.093
Sales	5649	1.192	0.775	0.032	15.961	0.682	1.006	1.500
SaleGrowth	5649	0.079	0.234	-3.711	0.956	0.017	0.094	0.177
NetIncGrowth	5649	-0.133	17.229	-703.934	286.933	-0.061	0.211	0.627
CeoIncentive	5649	0.315	0.236	0.000	1.000	0.136	0.249	0.434
AnnRet	5649	0.157	0.693	-0.978	13.041	-0.197	0.056	0.348

The average *GuidanceNum* is 2.91 for all firm-year observations. It means that the average number of items (e.g. earnings, cash flows, capital expenditures, etc.) in guidance is 2.91. The average *GuidanceNum* for firms with local CEOs is 2.51, which is less than the average of 3.08 for firms with nonlocal CEOs. The average frequency of guidance (*GuidanceFreq*) is 2.05, which is less than the average of *GuidanceNum* by definition. In addition, the average *GuidanceFreq* of 1.79 for firms with local CEOs is less than the average of 2.15

for firms with nonlocal CEOs.[5] The statistics on *GuidanceNum* and *GuidanceFreq* provide preliminary evidence that local CEOs provide less guidance than nonlocal CEOs.

Table 3.1 Panel B reports the summary statistics on control variables. Untabulated results show that some control variables differ between the two subsamples, therefore it is important to control for these variables in the empirical tests.

Table 3.2. Summary Statistics: Management Guidance

Year	All (1)	local CEO firms (2)	nonlocal CEO firms (3)	% local CEO firms (4)
	Panel A. Number of Observations			
1997	232	65	167	28.02
1998	332	103	229	31.02
1999	393	117	276	29.77
2000	520	152	368	29.23
2001	548	170	378	31.02
2002	566	173	393	30.57
2003	598	178	420	29.77
2004	596	176	420	29.53
2005	585	173	412	29.57
2006	595	167	428	28.07
2007	684	208	476	30.41
All	5649	1682	3967	29.78

Year	Panel B. Number of Guidance Items Variable = GuidanceNum						Panel C. Frequency of Guidance Variable = GuidanceFreq					
	All	nonlocal (1)	local (2)	Diff (1)-(2)	Diff =0 p-value	Sig	All	nonlocal (1)	local (2)	Diff (1)-(2)	Diff=0 p-value	Sig
1997	0.55	0.59	0.51	0.09	0.2196		0.46	0.50	0.42	0.08	0.1899	
1998	0.62	0.66	0.58	0.07	0.2488		0.55	0.59	0.51	0.08	0.2092	
1999	0.82	0.86	0.78	0.08	0.2627		0.76	0.79	0.73	0.06	0.3179	
2000	0.70	0.75	0.65	0.10	0.1537		0.62	0.65	0.58	0.08	0.2084	
2001	1.51	1.66	1.36	0.30	0.0283	**	1.43	1.58	1.28	0.30	0.0231	**
2002	2.33	2.49	2.17	0.32	0.0007	***	2.00	2.19	1.81	0.38	0.0208	**
2003	3.08	3.27	2.90	0.37	0.1085		2.26	2.41	2.11	0.30	0.0690	*
2004	3.79	4.33	3.25	1.08	0.0004	***	2.57	2.94	2.20	0.74	0.0001	***
2005	4.11	4.67	3.55	1.12	0.0005	***	2.71	3.03	2.40	0.63	0.0014	***
2006	4.57	4.83	4.31	0.52	0.0070	***	3.07	3.15	2.99	0.16	0.2456	
2007	4.95	5.56	4.34	1.22	0.0004	***	2.99	3.28	2.71	0.57	0.0013	**
All	2.91	3.07	2.51	0.57	0.0000	***	2.10	2.15	1.80	0.35	0.0000	***

To have more detailed view on management guidance, Table 3.2 further compares management guidance by local CEO and nonlocal CEO firms for each sample year. Panel A

[5]This study assumes that *GuidanceNum* or *GuidanceFreq* take a value of zero if we observe quarterly guidance but no annual guidance for the period.

reports the number of observations for all samples, local CEO sample and nonlocal CEO sample for each year during the sample period. The portion of firms with local CEOs is approximately 30%, while firms with nonlocal CEOs approximately 70%. This portion has been stable over all sample years. It suggests that local CEOs are an important feature in the labor market for CEOs and also a persistent feature of U.S. firms.

Table 3.2 Panel B and C report and compare the averages of *GuidanceNum* and *GuidanceFreq* for each fiscal year during 1997-2007. Panel B shows that local CEOs provide less items in management guidance relative to nonlocal CEOs for all years. The differences are statistically significant for more recent years after 2000. Panel C further shows that local CEOs provide less frequent guidance relative to nonlocal CEOs. Similarly, the differences are significant for more recent years after 2000.[6]

[6]For a complete view I also examine quarterly guidance, which is frequently examined in literature. The mean comparison shows no statistically significant difference in quarterly guidance issued by the local and nonlocal CEOs. In addition, for each year, it seems that local CEOs provide more quarterly guidance. However, the differences are smaller in magnitude and not statistically significant for each year. The overall quarterly guidance decreases since some firms voluntarily stopped quarterly guidance for recent years. Comparatively, annual guidance has been more stable throughout time. Based on the original guidance data, plotted graphs show that quarterly guidance and annual guidance have very similar trends prior to 2004. However, quarterly guidance stopped increasing after 2004 while annual guidance continued to increase. For above reasons, quarterly guidance are not examined in this study. All the statistics and graphs about quarterly guidance discussed in this footnote are available upon request.

CHAPTER 4

EMPIRICAL MODEL

4.1 Model

The baseline empirical model takes the specification of Equation (4.1). Any extension of this model will be discussed in related sections and tables. The dependent variables are the number of guidance items (*GuidanceNum*) and the guidance frequency (*GuidanceFreq*) provided for firm i during time t for the coming fiscal year ends. The variable that is interesting to this study is the dummy variable (*localCEO*) that equals to 1 if the CEO at firm i grew up in the same state as the location of the firm's headquarter, and zero otherwise.

$$\text{GuidanceMeasure}_{i,t} = \beta_0 + \beta_1 \text{localCEO}_{i,t} + \text{Controls}\gamma' + \varepsilon_{i,t} \tag{4.1}$$

The difference in guidance provision between local CEOs and nonlocal CEOs is captured by β_1. A negative β_1 implies that on average, local CEOs provide less guidance than nonlocal CEOs. The model controls for industry and year fixed effects. The standard errors are clustered by both firm and year (Petersen, 2009).

4.2 Control Variables

Several sets of explanatory variables are controlled following previous literature, including firm characteristics and managers' incentives.

Size measures firm size, using the natural logarithm of market value of equity at the beginning of the year. Market value of the equity is calculated as the stock price times the common stocks outstanding (Compustat item PRCC_F * CSHO). Larger firms tend to issue more guidances. *LogSale* is the natural logarithm of current sales (Compustat item SALE). *LagMB* is market-to-book ratio at the beginning of the period. It is market value of the equity divided by the book value of the equity (Compustat item BKVLPS). Growth firms

with high market-to-book ratio are likely to issue more guidance to help with a market's formation of less-biased earnings expectations. On the other hand, growth firms facing more uncertainties in financial numbers estimation might hold back forecasts to avoid forecast errors. *LagQ* is Tobin's Q of last period. Tobin's Q is calculated as the market value of the assets divided by the book value of the assets, where market value of asset is calculated as the market value of equity plus the market value of the debt, for which I use book value of the debt as proxy (Compustat item LT). *NetIncome* and *Sales* are net income and sales divided by total assets (Compustat item NI or SALE divided by AT). *SaleGrowth* is current sales minus sales from last period divided by total assets (Compustat item SALE). *NetIncGrowth* is current net income minus net income from last period divided by total assets (Compustat item NI).

CEO equity incentive is an important factor in firm disclosure choices (Healy and Palepu, 2001; Hirst et al., 2008).[1] *CeoIncentive* is constructed to measure the dollar change in the value of a manager's stock and option holdings resulting from a one percentage point increase in the firm stock price (Bergstresser and Philippon, 2006). First I calculate the variable $onepct = 0.01 \times price \times (\#shares + \#options)$, then calculate the $CeoIncentive = onepct/(onepct + salary + bonus)$. *AnnRet* is the continuous annually compounded stock return. It is a proxy for the amount of information for the firm. Table 3.1. Panel B reports the summary statistics of control variables for all firm-years in the sample.

[1]Healy and Palepu (2001) list six motives at firm-level for voluntary disclosure, including capital market transactions, corporate control contests, stock compensation, litigation, proprietary costs, and management talent signaling. For equity-based compensation, Hirst et al. (2008) discuss more details on how some managerial-level (self-interest) forecast incentives and equity based compensation will motivate managers to disclose both good news and bad news (p. 324).

CHAPTER 5

EMPIRICAL RESULTS

The descriptive statistics in Table 3.2 show that local CEOs provide less guidance than nonlocal CEOs. In this section, I explore the local CEO guidance provision using regression analyses. First, I investigate whether local CEOs provide more or less guidance in general. Then I analyze the market reactions to the guidance announcements to infer whether local CEOs are more likely to withhold bad news relative to good news. Next, I examine the difference in guidance between the two groups of CEOs before and after Reg FD. Last, I examine the guidance provision by local CEOs when their home states go through economic downturns.

5.1 Local CEOs and Management Guidance

To investigate whether local CEOs provide less guidance than nonlocal CEOs, the tests start with simple univariate regressions, then add firms' characteristics, managerial equity incentives, and firm stock returns as controls, then further year and industry dummies. Results in Table 5.1 provides empirical evidence that local CEOs provide less guidance, compared to nonlocal CEOs, which is consistent with H1.

In Table 5.1., the dependent variables are the number of items in guidance (*GuidanceNum*) and the guidance frequency (*GuidanceFreq*). Panel A column (1) - (3) reports the test results for dependent variable *GuidanceNum*. Column (1) presents the univariate test results. Column (2) presents the results by adding control variables and column (3) further adds year and industry fixed effects. Panel B column (4) - (6) presents the test results for dependent variable *GuidanceFreq*. Column (4) presents the univariate test results. Column (5) presents the results by adding control variables and column (6) further adds year and industry fixed effects. All specifications control for constants. The standard errors are re-

ported in parentheses beneath the estimates, clustered by firm and year. *, **, and *** denote the significance level at 10%, 5%, and 1%, respectively.

Table 5.1. Local CEOs' Management Guidance, 1997-2007

	Panel A. Number of Guidance Items Dependent variable = GuidanceNum			Panel B. Frequency of Guidance Dependent variable = GuidanceFreq		
	(1)	(2)	(3)	(4)	(5)	(6)
LocalCEO	-0.5695***	-0.5641***	-0.6021***	-0.3514***	-0.3362***	-0.3716***
	(0.1898)	(0.1903)	(0.1721)	(0.1106)	(0.1050)	(0.0962)
Size		0.5055***	0.2247**		0.2460***	0.1199**
		(0.1304)	(0.0965)		(0.0794)	(0.0611)
LogSale		0.0590	0.2456**		0.2269***	0.2836***
		(0.1124)	(0.0963)		(0.0816)	(0.0681)
LagMarketBook		-0.0001***	-0.0000***		-0.0000***	-0.0000***
		(0.0000)	(0.0000)		(0.0000)	(0.0000)
LagQ		-0.0788***	-0.0031		-0.0369***	0.0065
		(0.0164)	(0.0111)		(0.0086)	(0.0078)
NetIncome		1.3213**	0.5869**		0.7958**	0.4051**
		(0.5698)	(0.2877)		(0.3377)	(0.1984)
Sales		0.0991	-0.0072		0.0256	-0.0194
		(0.1364)	(0.0976)		(0.0929)	(0.0683)
SaleGrowth		1.3471***	1.1286***		0.8098***	0.7094***
		(0.4257)	(0.3290)		(0.2841)	(0.1777)
NetIncGrowth		-0.0010	-0.0014		0.0002	0.0000
		(0.0043)	(0.0028)		(0.0027)	(0.0019)
AnnRet		0.0082	0.1200*		0.0173	0.0915*
		(0.1297)	(0.0709)		(0.0619)	(0.0548)
CeoIncentive		-0.5067	-0.1937		-0.3699	-0.1846
		(0.4941)	(0.3320)		(0.3194)	(0.2352)
Constant	yes	yes	yes	yes	yes	yes
Year and Ind FE	no	no	yes	no	no	yes
cluster	F&Y	F&Y	F&Y	F&Y	F&Y	F&Y
N	5649	5649	5649	5649	5649	5649
adj. R-sq	0.005	0.064	0.338	0.005	0.092	0.333

In Panel A column (3), for example, local CEOs provide 0.60 fewer items than nonlocal CEOs. The results are statistically significant and economically meaningful. From Table 3.1 and 3.2, the average number of guidance items provided by nonlocal CEOs is 3.075. If dividing 0.60 by 3.075, local CEOs on average provide almost 20% (19.51% to be exact) fewer number of guidance items than nonlocal CEOs. The magnitude and statistical significance of the coefficient is consistent with the results in Table 3.2. Table 3.2 shows that the difference in number of guidance items between local CEOs and nonlocal CEOs is 0.57, which is very close to 0.60 in the regression results even after controlling for other confounding factors.

In Panel B column (6), the results show that local CEOs provide 0.37 less frequent guidance than nonlocal CEOs. This coefficient is statistically significant and economically meaningful. Based on Table 3.1 or 3.2, the average frequency of guidance provided by nonlocal CEOs is 2.149. When dividing the coefficient 0.37 by 2.149, local CEOs on average provide 17% less frequency of guidance than nonlocal CEOs. Overall, the results that local managers provide fewer numbers of items in their guidance and less frequent guidance are consistent with the hypothesis.

5.2 Random Assignment of Local CEOs

The difference in management guidance provided by local CEOs and nonlocal CEOs documented in Table 5.1 can be viewed in another way. In the following tests, I randomly assign a manager to be a local CEO based on the actual distribution of local and nonlocal CEOs, then re-run the same tests in Table 5.1 column (3) and (6). The procedure is repeated for 500 and 1000 times for both dependent variables, *GuidanceNum* and *GuidanceFreq*, respectively.[1] In each replication, a manager is randomly assigned to be a local CEO according to the actual local and nonlocal CEO probability distribution. The regression coefficient estimate β_1, its standard error, associated t-stat and p-value are recorded based on the regression results. The procedure are repeated for 500 and 1000 times, respectively. The dependent variables are *GuidanceNum* in Panel A and *GuidanceFreq* in Panel B. The coefficient of variable $LocalCEO$ are reported in the table. All the coefficients of control variables are not reported for brevity.

First, the difference in management guidance between two groups of randomly assigned CEOs are not statistically significant from zero. For example, in column (1) the mean effect

[1]This type of tests has been used in the literature, for example, in (Bernile et al., 2017). In their tests of the relation between CEOs' early-life exposure to disasters and their corporate decisions, they "conduct a placebo tests where we assign a random birth county to each CEO and find no statistically significant effects of the correspondingly random disaster experience on our outcome variables.

Table 5.2. Local CEOs' Management Guidance: *Random Assignment of Local CEOs*

	Panel A: Number of Guidance Items Dependent variable = *GuidanceNum*		Panel B: Frequency of Guidance Dependent variable = *GuidanceFreq*	
	(1)	(2)	(3)	(4)
# of replications	500	1000	500	1000
β_1 mean	0.0008	0.0004	0.0008	-0.0005
β_1 range [min, max]	[-0.2427, 0.2213]	[-0.2427, 0.2275]	[-0.1465, 0.1507]	[-0.1539, 0.1624]
Negative β_1	49.80%	48.90%	51.20%	50.30%
% Negative β_1 sig. at 5% level	2.80%	3.10%	4.40%	4.90%
% Negative β_1 sig. at 1% level	1.40%	1.70%	1.00%	1.50%
% Positive β_1 sig. at 5% level	3.80%	4.10%	4.40%	4.40%
% Positive β_1 sig. at 1% level	1.60%	1.40%	1.60%	1.40%
$\beta_{1,T4}$ (i.e. β_1 in Table 4)	-0.6021	-0.6021	-0.3716	-0.3716
% Neg. β_1 with $\|\beta_1\| > \|\beta_{1,T4}\|$	0.00%	0.00%	0.00%	0.00%

of being a randomly assigned local CEO (i.e. the mean of β_1's) is positive at 0.0008. It is not statistically significant. It is also small in magnitude compared to the corresponding coefficient of −0.6021 in Table 5.1. Second, the results show that nearly half of the estimated coefficients, β_1, are negative in either the 500- or 1000- replication. This is not surprising due to the random assignment design. Although a small portion of the negative coefficients are actually significant but no coefficient is larger in magnitude than findings in Table 5.1. For example, in column (1) only 2.80% (1.40%) of the negative coefficients are significant at 5% (1%) level. The negative coefficient is -0.2427 at maximum, which is less than half of coefficient -0.6021 in Table 5.1.

Overall, no convincing evidence shows that the randomly assigned local CEOs provide less guidance relative to nonlocal CEOs in Table 5.2. The results provide confirming evidence that the baseline results are unlikely to be created by randomness and also confirm that the local CEOs differ from the nonlocal CEOs in guidance provision.

5.3 Empirical Challenges and Approaches

The baseline results suggest that local CEOs provide less voluntary disclosure relative to nonlocal CEOs. It is possible that some firm-level factor can determine both the disclosure

choices of a firm and the type of CEO hired by the firm. For example, a firm that has business strategy to develop localized services might tend to hire a local manager. Such a firm might also tend to issue less guidance because it is potentially small size. In this case, we observe the negative relation between local CEOs and guidance. However, we cannot easily observe a firm's business strategy or empirically measure it, therefore cannot directly control for it. Instead, if the variable "localCEO" captures some variations of the business strategy then its coefficient might not be consistent.

An estimation strategy to control for the unobserved firm characteristics is to use firm fixed effects. Estimating a fixed effect model is plausible when there exists intra-group variations in the variable of interest (Gormley and Matsa, 2013). In this study, there should exist both local CEOs and nonlocal CEOs for a given firm during the sample period. The data shows that only 16% of the final sample firms have local-to-nonlocal or nonlocal-to-local CEO turnovers. Firm-fixed effects remove most of the variations that would be of interest, therefore, are not feasible in this study. Another strategy to identify the managerial effect by tracking CEOs from one firm to another and identify the managerial-specific effects (Bertrand and Schoar, 2003; Bamber et al., 2010). In the final sample, there are only 23 CEOs who switched to another firm as CEO, of which only 3 CEOs make the switch between local and nonlocal firms. The far fewer data points relative to other studies might be due to the restricted sample period (1997-2007) and limited availability of management guidance data. Another alternative strategy is to find an exogenous shock resulting a local CEO becoming a nonlocal CEO. An example of such exogenous shock is hard to find and can be very rare.

Despite the above empirical constraints, a feasible strategy to obtain a consistent estimate is to use instrumental variable approach. A valid instrument is one or more variables that are correlated with the probability of a manager being a local CEO but uncorrelated with unobserved factors relating to firm disclosures. In this study, I use the state population as

a percentage of national population in the past as an instrumental variable to identify the relation between local CEO and firm disclosure. The state population in the past can be correlated with the probability of a manager to become local in several ways. First, if family and community connections are important in managers' choice to live in their home state, a manager from a more populated state might be more likely to stay local. Second, a firm headquartered in a populated state has a larger pool of candidates and thus is more likely to hire locally (Yonker, 2017b). Meanwhile, the percentage of state population in the distant past is also arguably independent of unobserved factors relating to firm disclosure.

More formally, the probability that a manager is a local CEO can be specified as a function of the percentage of state population. It represents the first-stage estimation in the two-stage least squares estimation strategy. In the first-stage regression, all the exogenous variables in the second stage are also controlled for.

$$Pr(LocalCEO = 1)_{i,t} = \alpha_0 + \alpha_1 PopPct_{s,t-k} + \epsilon_{i,t}$$

I define variable $PopPct_{s,t-k}$ as the population of state s in year $t-k$, as a percentage of national population in year $t-k$. The population data is obtained from US Census Bureau.[2] I use three different k's to define the instrument variable in order to capture the different forces driving a manager to become a local. First, I use state population percentage 37 years before the firm's disclosure year ("IV1"). The number 37 is chosen since the average of the CEO ages in ExecuComp is approximately 50 and managers typically obtained their social security number at ages between 14 and 17. The gap between the average CEO age 50 and age 14 is 37 years (including starting year). Second, I use the state population percentage during the CEO's birth year ("IV2"), and third, the state population percentage

[2]The US state population is obtained from United States Census Bureau. The website link for historical state population is `https://www.census.gov/popest/data/historical/index.html`. The Census Bureau counts every residence in the United States every 10 years. The Census Bureau then estimates the population for each state for each year during the 10 years. Therefore, the annual state population data is the inter-census year data and available from 1900 to 2015.

when a manager was 14 year old ("IV3"). The first definition intends to capture the CEO candidate pool available to a firm which makes decisions to hire or retain a CEO. The last two definitions intend to capture the factors (social ties, family and friends etc.) that can lead a CEO to be local. Table 5.3. reports the two-stage least squares (2SLS) results. The standard errors are reported in parentheses beneath the estimates, clustered by firm and year. *, **, and *** denote the significance level at 10%, 5%, and 1%, respectively. The first stage estimates and statistics are reported at the bottom of the table. In the first stage, all the variables in the second stage are also controlled for.

The first-stage results show that all three definitions of state population percentage in the past are significantly and positively associated with the probability of a CEO being local. All the exogenous variables from second stage are also controlled in this stage but not reported for brevity. The model further controls for some CEO level variables in the first stage since I want to capture the decision of a CEO to be local or nonlocal.

The first-stage F-values are all above 10. Second, the endogenous tests reject the null that "LocalCEO variable is exogenous" at around 2%-8% significance level. However, we cannot reject the null at 1% level. These results provide us with evidence that the baseline model may be subject to some endogenous concern. More importantly, the instrumental variables are able to improve the estimations. The second-stage results show that local CEOs provide less guidance. The direction of the effect is consistent with the baseline results.[3]

[3]The above first-stage estimations assume that every year a CEO decides to be local or nonlocal every year. Therefore, the first stage is tested at firm-year level. If I assume that a CEO decides to be local or nonlocal once through his/her career years, then I can estimate the first stage at CEO level. The results following this assumption are consistent with results that I presented here and are also available upon request. Overall, the results are consistent with our hypotheses that local CEOs provide less guidance.

Table 5.3. Local CEOs' Management Guidance: IV Estimations

	Dependent variable = GuidanceNum				Dependent variable = GuidanceFreq			
	OLS	2SLS IV1	2SLS IV2	2SLS IV3	OLS	2SLS IV1	2SLS IV2	2SLS IV3
LocalCEO	-0.6485***	-3.9221***	-2.4060***	-3.7755***	-0.3932***	-2.8040***	-1.4521***	-2.6879***
	(0.1756)	(1.3888)	(0.8762)	(1.2388)	(0.0967)	(0.9351)	(0.5299)	(0.8141)
Size	0.2161**	0.1596**	0.1853***	0.1621**	0.1113*	0.0697	0.0925**	0.0717
	(0.0967)	(0.0669)	(0.0609)	(0.0668)	(0.0613)	(0.0454)	(0.0391)	(0.0457)
LogSale	0.2274**	0.2264***	0.2274***	0.2264***	0.2781***	0.2773***	0.2783***	0.2774***
	(0.0989)	(0.0761)	(0.0662)	(0.0751)	(0.0686)	(0.0569)	(0.0490)	(0.0562)
LagMarketBook	-0.0000***	-0.0000***	-0.0000***	-0.0000***	-0.0000**	-0.0000***	-0.0000***	-0.0000***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
LagQ	-0.0047	-0.0161	-0.0108	-0.0156	0.0047	-0.0038	0.0010	-0.0034
	(0.0110)	(0.0119)	(0.0092)	(0.0112)	(0.0074)	(0.0077)	(0.0058)	(0.0072)
NetIncome	0.5794**	0.8994**	0.7522**	0.8851**	0.3972**	0.6329**	0.5018**	0.6215**
	(0.2717)	(0.3895)	(0.3177)	(0.3754)	(0.1916)	(0.2636)	(0.2070)	(0.2515)
Sales	-0.0150	-0.0382	-0.0278	-0.0371	-0.0219	-0.0389	-0.0297	-0.0381
	(0.0958)	(0.0602)	(0.0486)	(0.0590)	(0.0673)	(0.0423)	(0.0351)	(0.0419)
SaleGrowth	1.1444***	1.2143***	1.1823***	1.2112***	0.7042***	0.7557***	0.7272***	0.7532***
	(0.3435)	(0.3004)	(0.3076)	(0.3009)	(0.1813)	(0.1716)	(0.1651)	(0.1716)
NetIncGrowth	-0.0020	-0.0028	-0.0024	-0.0027	-0.0003	-0.0008	-0.0005	-0.0008
	(0.0030)	(0.0037)	(0.0033)	(0.0036)	(0.0020)	(0.0025)	(0.0022)	(0.0025)
AnnRet	0.1063	-0.0027	0.0478	0.0022	0.0833	0.0031	0.0480	0.0069
	(0.0728)	(0.0825)	(0.0721)	(0.0777)	(0.0544)	(0.0579)	(0.0505)	(0.0549)
CeoIncentive	-0.2178	0.4804	0.1549	0.4491	-0.2008	0.3134	0.0228	0.2886
	(0.3394)	(0.4569)	(0.3745)	(0.4354)	(0.2517)	(0.3225)	(0.2598)	(0.3043)
CeoChair	0.1936*	0.1576**	0.1733***	0.1592**	0.1631**	0.1366**	0.1504***	0.1379**
	(0.1140)	(0.0779)	(0.0643)	(0.0777)	(0.0781)	(0.0590)	(0.0481)	(0.0587)
age60Dum	0.0151	0.1419	0.0835	0.1363	0.0189	0.1123	0.0602	0.1078
	(0.1363)	(0.0916)	(0.0726)	(0.0879)	(0.0995)	(0.0714)	(0.0564)	(0.0698)
logCEOage	0.0020	-0.9733*	-0.5215	-0.9296*	-0.1990	-0.9172***	-0.5144**	-0.8826***
	(0.5468)	(0.5194)	(0.4232)	(0.4782)	(0.3809)	(0.3093)	(0.2395)	(0.2804)
femaleCeo	0.5382	0.5223**	0.5296**	0.5230**	0.4508	0.4390**	0.4455**	0.4396**
	(0.4677)	(0.2387)	(0.2246)	(0.2363)	(0.3866)	(0.1821)	(0.1907)	(0.1819)
Year Ind FE	yes	yes	yes	yes	yes	yes	yes	yes
Clusters	Y&F	Y&F	Y&F	Y&F	Y&F	Y&F	Y&F	Y&F
N	5405	5405	5404	5405	5405	5405	5404	5405
adj. R-sq	0.338	0.169	0.289	0.184	0.332	0.104	0.288	0.125
	First Stage Results. $Pr(LocalCEO = 1)_{i,t} = \alpha_0 + \alpha_1 PopPct_{s,t-k} + \epsilon_{i,t}$							
Coeff. on IV, α_1		1.008***	1.827***	1.117***		1.008***	1.827***	1.117***
Standard error		(0.314)	(0.364)	(0.334)		(0.314)	(0.364)	(0.334)
t-statistics		3.21	5.02	3.35		3.21	5.02	3.35
First stage F-stat		¿10	¿10	¿10		¿10	¿10	¿10
First stage, p		0.000	0.000	0.000		0.000	0.000	0.000
Endogenous, p		0.0448	0.0708	0.0341		0.0285	0.0868	0.0198

5.4 Why Do Local CEOs Provide Less Guidance?

5.4.1 Local CEOs Withholding Bad News

To better understand the career concern explanation, I follow the framework of Kothari et al.(2009) to examine the market reactions to voluntary management earnings forecasts by local CEOs. Kothari et al. (2009) argue that career concerns might lead managers to withhold bad news. In this case, we should be able to observe the asymmetric market reactions to bad and good news by local CEOs. Moreover, we also expect the local CEOs withhold more bad news than nonlocal CEOs, or empirically, the magnitude of market reactions to bad news by local CEOs should be greater than that of nonlocal CEOs.

Using the I/B/E/S Guidance dataset, I keep the annual guidance on earnings per share and quarterly guidance on earnings per share separately and test the following models for all sample, and for local CEO and nonlocal CEO subsample firms, respectively.[4]

$$CAR = \beta_0 + \beta_1 Bad + \varepsilon \tag{5.1}$$

$$CAR = \beta_0 + \beta_1 Bad + \beta_2 News + \beta_3 Bad * News + \varepsilon \tag{5.2}$$

The dependent variable, *CAR*, is the five-day cumulative abnormal returns around each management guidance announcement date. Abnormal returns are defined as the firm's stock returns minus the CRSP value-weighted market return. *News* is the difference between management forecasts and analysts consensus, then scaled by the absolute value of the

[4]Annual earnings per share guidance are those observations in the data with periodicity = "ANN" and measure = "EPS" and quarterly ones with periodicity = "QTR" and measure = "EPS". If more than two forecasts are provided on the same announcement date, I keep the one issued for the closest unreleased earnings. For a sample of I/B/E/S firms (1992-2016) that I can identify the permno number, 93% of the annual announcement dates have only one EPS forecast, 6.7% have two EPS forecasts and less than 3% have more than two EPS forecasts. The announcements that make multiple forecasts usually give guidance about a time series of earnings in the future and are likely to convey more information than a simple forecast. However, in case that one forecast is good news and others are bad news, how bad news and good news can be defined aggregately for this announcement date in this case of multiple forecasts is not clear in the literature. Therefore, I keep the forecasts on EPS of next period end.

analyst consensus at that time.[5] *Bad* is a dummy variable which equals to 1 if *News* is negative ($News < 0$), and 0 otherwise.

To interpret the empirical results, I do the following calculations in line with Kothari et al. (2009). For the baseline model in Equation (5.1), the market reaction to good news is the intercept, β_0, which is expected to be positive since the literature documents a positive reaction to good news. Therefore, the magnitude of market reaction to good news is the absolute value of the intercept, $|\beta_0|$. In the same model, the market reaction to bad news is the sum of intercept and coefficient on dummy variable *Bad*, i.e. $\beta_0 + \beta_1$, which is expected to be negative since the literature documents a negative reaction to bad news. Therefore, the magnitude of the market reaction to bad news is the absolute value $|\beta_0 + \beta_1|$. When I test the asymmetric market reaction to bad news and good news, I test the hypothesis $|\beta_0 + \beta_1| > |\beta_0|$.[6]

The results show several findings. First, using the baseline model of Eq.(5.1), Panel A column (1) to (3) document asymmetric market reactions to good news and bad news in management forecasts. For example, for the local CEO subsample, the market reactions (cumulative abnormal returns) are +2.07% for good news and −3.80% (which equals to $-0.0587 + 0.0207$) for bad news. The asymmetry reactions to good and bad news are consistent with Kothari et al. (2009). Second, the expanded model of Eq.(5.2) in Panel B column (4) to (6) further control for the amount of news in the forecasts. The results provide similar evidence about the asymmetric market reactions. Furthermore, the coefficient on the interaction variable, $Bad * News$, is positive and statistically significant for all sample and

[5]For now, the analysis consensus is only readily available for year after 2002 in I/B/E/S Guidance. Therefore, the tests here are for period 2002-2007.

[6]In Table 7, this can be reduced to $-(\beta_0 + \beta_1) > \beta_0$ in alternative form. Alternatively, I can say the difference between the magnitude of market reaction to bad and good news is greater than zero, i.e. $-2\beta_0 - \beta_1 > 0$ in alternative form. If I conduct our tests of Equation (2) in separately using local and nonlocal CEO subsamples, I can test $-2\beta_{0,local} - \beta_{1,local} > -2\beta_{0,nonlocal} - \beta_{1,nonlocal}$ to infer if the asymmetric reaction is greater for news in management guidance by local CEOs than by nonlocal CEOs.

Table 5.4. Bad News Withholding, Annual Guidance 2002-2007

	Panel A			Panel B			Panel C	
	All Sample	Subsamples		All Sample	Subsamples		All sample	All sample
		Local	nonlocal		Local	nonlocal		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept (β_0)	0.0188***	0.0207***	0.0181***	0.0187***	0.0206***	0.0143***	0.0181***	0.0143***
	(0.0009)	(0.0017)	(0.0010)	(0.0008)	(0.0017)	(0.0011)	(0.0010)	(0.0013)
Bad (β_1)	-0.0578***	-0.0587***	-0.0575***	-0.0553***	-0.0567***	-0.0511***	-0.0575***	-0.0511***
	(0.0017)	(0.0031)	(0.0020)	(0.0018)	(0.0032)	(0.0021)	(0.0022)	(0.0023)
News (β_2)				0.0015	0.0004	0.0704***		0.0704***
				(0.0016)	(0.0011)	(0.0090)		(0.0195)
Bad * News (β_3)				0.0233***	0.0197***	-0.0435***		-0.0435**
				(0.0073)	(0.0060)	(0.0098)		(0.0214)
LocalCEO (β_4)							0.0026	0.0063***
							(0.0018)	(0.0020)
Bad * LocalCEO (β_5)							-0.0011	-0.0056
							(0.0041)	(0.0042)
News * LocalCEO (β_6)								-0.0699***
								(0.0195)
Bad * News * LocalCEO (β_7)								0.0632***
								(0.0241)
N	10854	2930	7924	10854	2930	7924	10854	10854
adj. R-sq	0.099	0.106	0.097	0.104	0.109	0.109	0.099	0.109
	(1)	(2)	(3)	(4)	(5)	(6)		
Test whether CEOs withhold bad news								
(1) ($\lvert\beta_0 + \beta_1\rvert$)	0.039	0.038	0.0394	0.0366	0.0361	0.0368		
(2) ($\lvert\beta_0\rvert$)	0.0188	0.0207	0.0181	0.0187	0.0206	0.0143		
Diff = $-2\beta_0 - \beta_1$	0.0202	0.0173	0.0213	0.0179	0.0155	0.0225		
Test H0: $-2\beta_0 - \beta_1 = 0$								
p-value	0.000	0.000	0.000	0.000	0.000	0.000		
F-stat	147.49	30.41	117.61	94.24	23.62	119.34		
							(7)	(8)
Compare the local CEOs vs. nonlocal CEOs								
(Market reaction $\lvert localceo = 1, bad = 1) = \beta_0 + \beta_1 + \beta_4 + \beta_5$							-0.0379†	
(Market reaction $\lvert localceo = 0, bad = 1) = \beta_0 + \beta_1$							-0.0394†	
†Test on the significance of difference between the market reactions, F = 0.17 and p-value = 0.6814								
(Market reaction $\lvert localceo = 1, bad = 1, News) = \beta_0 + \beta_1 + \beta_2 News + \beta_3 News + \beta_4 + \beta_5 + \beta_6 News + \beta_7 News$								-0.0391‡
(Market reaction $\lvert localceo = 0, bad = 1, News) = \beta_0 + \beta_1 + \beta_2 News + \beta_3 News$								-0.0312‡
‡Test on the significance of difference between the market reactions, F = 3.17 and p-value = 0.0749								

for the local CEO subsample. It means that, by controlling for the amount of news, I still find that local CEOs withhold bad news.

Next, in order to better compare the difference between local and nonlocal CEOs in withholding bad news, I continue to test the following two models using all observations.

$$CAR = \beta_0 + \beta_1 Bad + \beta_4 LocalCEO + \beta_5 Bad * LocalCEO + \varepsilon \tag{5.3}$$

$$\begin{aligned} CAR = {} & \beta_0 + \beta_1 Bad + \beta_2 News + \beta_3 Bad * News \\ & + \beta_4 LocalCEO + \beta_5 Bad * LocalCEO + \beta_6 News * LocalCEO \\ & + \beta_7 Bad * News * LocalCEO + \varepsilon \end{aligned} \tag{5.4}$$

In Panel C, I compare the magnitude of market reactions to bad news released by local CEOs and nonlocal CEOs. First, column (7) provides evidence that there is no difference

between local and nonlocal CEO in withholding the bad news. The coefficient on the interacting term $bad * LocalCEO$ is negative, but not statistically significant. However, if further adding the control $News$, the coefficient of the interaction term *News*Bad*LocalCEO* is positive and statistically significant.

Further, I do the following calculations in line with Kothari et al. (2009). In Eq. (5.3), the market reaction to bad news released by local CEOs is $\beta_0 + \beta_1 + \beta_4 + \beta_5$ and the market reaction to bad news released by nonlocal CEOs is $\beta_0 + \beta_1$. Similar calculations are done for equation (5.4). By comparing the market reactions magnitudes, we can see market reactions to bad news by local CEOs are more negative than that by nonlocal CEOs when controlling for the amount of news. The result is consistent with our hypothesis that career concerns can be the explanation.

The robustness results use three-day cumulative abnormal returns as dependent variable and also examine market reactions to quarterly earnings per share forecasts. The results using 3-day cumulative abnormal returns are consistent with the results using 5-day cumulative abnormal returns. When analyzing the market reaction to quarterly EPS forecasts, the results are consistent with the asymmetric reaction to good and bad news (column 1-3). However, the difference between local and nonlocal CEOs is not significant (column 7-8), no matter whether *News* is controlled or not.

5.4.2 Can Private Communication be Another Explanation?

The results so far have shown significant differences between local and nonlocal CEOs in their voluntary disclosure choices. I argue that local CEOs provide less voluntary disclosure than nonlocal CEOs due to their more career concerns, which is consistent with the evidence on managers' bad news withholding behavior. However, results have not been able to address other channels that CEOs can possibly use to connect to their investors. For example, local

Table 5.5. Robustness Check. Bad News Withholding 2002-2007

Robustness 1. Dependent variable = 3-day cumulative abnormal returns

	Panel A			Panel B			Panel C	
	All Sample	Subsamples		All Sample	Subsamples		All sample	All sample
		Local	nonlocal		Local	nonlocal		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	0.0164***	0.0185***	0.0156***	0.0163***	0.0184***	0.0124***	0.0156***	0.0124***
	(0.0008)	(0.0016)	(0.0010)	(0.0008)	(0.0016)	(0.0011)	(0.0009)	(0.0012)
Bad	-0.0535***	-0.0551***	-0.0529***	-0.0511***	-0.0531***	-0.0473***	-0.0529***	-0.0473***
	(0.0016)	(0.0029)	(0.0018)	(0.0017)	(0.0029)	(0.0019)	(0.0020)	(0.0022)
News				0.0012	0.0003	0.0599***		0.0599***
				(0.0014)	(0.0010)	(0.0084)		(0.0178)
Bad * News				0.0223***	0.0203***	-0.0352***		-0.0352*
				(0.0065)	(0.0055)	(0.0092)		(0.0193)
LocalCEO							0.0028*	0.0060***
							(0.0017)	(0.0019)
Bad * LocalCEO							-0.0021	-0.0058
							(0.0038)	(0.0039)
News * LocalCEO								-0.0597***
								(0.0178)
Bad * News * LocalCEO								0.0555**
								(0.0222)
N	10854	2930	7924	10854	2930	7924	10854	10854
adj. R-sq	0.098	0.109	0.094	0.103	0.113	0.105	0.098	0.107

Robustness 2. Abnormal returns around quarterly earnings guidance

	Panel A			Panel B			Panel C	
	All Sample	Local	nonlocal	All Sample	Local	nonlocal	All sample	All sample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ARCum	ARCum	ARCum	ARCum	ARCum	ARCum	ARCum	ARCum
Intercept	0.0255***	0.0281***	0.0245***	0.0252***	0.0277***	0.0242***	0.0245***	0.0242***
	(0.0011)	(0.0021)	(0.0013)	(0.0011)	(0.0021)	(0.0013)	(0.0013)	(0.0013)
Bad	-0.0591***	-0.0613***	-0.0582***	-0.0573***	-0.0589***	-0.0565***	-0.0582***	-0.0565***
	(0.0017)	(0.0032)	(0.0020)	(0.0018)	(0.0032)	(0.0021)	(0.0021)	(0.0021)
News				0.0015	0.0017	0.0015*		0.0015
				(0.0015)	(0.0017)	(0.0008)		(0.0018)
Bad * News				0.0026	0.0046**	0.0023**		0.0023
				(0.0016)	(0.0023)	(0.0010)		(0.0018)
LocalCEO							0.0036	0.0035
							(0.0023)	(0.0024)
Bad * LocalCEO							-0.0031	-0.0024
							(0.0038)	(0.0038)
News * LocalCEO								0.0002
								(0.0022)
Bad * News * LocalCEO								0.0023
								(0.0030)
N	9188	2771	6417	9188	2771	6417	9188	9188
adj. R-sq	0.114	0.118	0.112	0.119	0.123	0.118	0.114	0.119

CEOs might have better private communication with their investors, therefore, they supplement management guidance efforts with private communication. The private communication channel can be a plausible explanation for the following reasons.

First, local CEOs may have advantages to communicate privately. They can use their personal connections to reach out to local investors at a lower cost, relative to nonlocal CEOs. Second, local CEOs may be more willing to privately communicate with their investors. Local CEOs may favor their hometown investors over others, and privately communicate with those investors. This explanation is consistent with recent literature which documents the local

CEOs have special treatment to their hometown. For example, Yonker (2017b) finds that local managers favor home town workers over others.

In addition, the private communication explanation is consistent with the literature on home bias of investors and the possible channel of information advantage (Coval and Moskowitz, 1999, 2001; Ivković and Weisbenner, 2005). Literature has suggested the information advantage can be from investors actively searching for information of firms in the surrounding the area. However, it is also possible that managers provide private information using managers' social networks and their informal interactions with their investors.

To better understand the underlying economic explanations for less guidance by local CEOs, especially to provide evidence to rule out the private communication channel, I conduct the following tests using the implementation of Reg FD as a shock that can potentially reduce local CEOs' propensity to interact with local investors. I use the following model. The variable $RegFD$ is a dummy variable that equals 1 for years after 2000 and equals 0 otherwise.

$$Guidance = \alpha_0 + \alpha_1 localCEO + \alpha_2 RegFD + \alpha_3 localCEO \times RegFD + Controls\gamma' + e$$

If the private communication is partial reason behind the negative relation, we should observe the difference between local CEOs and nonlocal CEOs to reduce after Reg FD. Or if private communication is the only explanation, the ability of local CEOs to provide information other than management guidance should disappear after the regulation and we should observe no difference in guidance between local and nonlocal CEOs.

Table 5.6. column (1) and (2) focuses on the sample period after Reg FD. The results show that local CEOs provide fewer number of items in their guidance or less frequent guidance after Reg FD, compared to nonlocal CEOs. The coefficients actually becomes larger in magnitude. This is not consistent with the private communication hypothesis which suggests that the difference between local and nonlocal CEOs should decrease or disappear after the regulation.

Table 5.6. Local CEOs' Management Guidance: Private Communication Advantage?

Dependent Variable	Panel A. Years After 2001 GuidanceNum (1)	GuidanceFreq (2)	Panel B. Years 1997 - 2007 GuidanceNum (3)	GuidanceFreq (4)
LocalCEO	-0.7374***	-0.4394***	-0.2414**	-0.1795**
	(0.1997)	(0.1153)	(0.1067)	(0.0697)
RegFD			2.7812***	1.9435***
			(0.0691)	(0.0503)
LocalCEO * RegFD			-0.5015**	-0.2645**
			(0.1948)	(0.1184)
Size	0.2054	0.0881	0.2222**	0.1197*
	(0.1335)	(0.0858)	(0.0962)	(0.0611)
LogSale	0.3397**	0.3660***	0.2417**	0.2826***
	(0.1472)	(0.0913)	(0.0959)	(0.0681)
LagMarketBook	-0.0001***	-0.0000***	-0.0000***	-0.0000***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
LagQ	0.0589	0.0369	-0.0027	0.0069
	(0.0637)	(0.0396)	(0.0110)	(0.0078)
NetIncome	0.5373	0.3503	0.5844**	0.4010**
	(0.3686)	(0.2578)	(0.2888)	(0.1974)
Sales	-0.0595	-0.0550	-0.0152	-0.0208
	(0.1401)	(0.0915)	(0.0976)	(0.0678)
SaleGrowth	1.4264***	0.9148***	1.1378***	0.7110***
	(0.4433)	(0.2146)	(0.3272)	(0.1774)
NetIncGrowth	-0.0003	0.0007	-0.0013	0.0001
	(0.0033)	(0.0021)	(0.0029)	(0.0019)
AnnRet	0.2912*	0.2113	0.1237*	0.0955*
	(0.1506)	(0.1295)	(0.0715)	(0.0556)
CeoIncentive	-0.0850	-0.1150	-0.1858	-0.1879
	(0.4307)	(0.3015)	(0.3360)	(0.2366)
Constant	-1.9781*	-1.2625	-2.9197***	-2.3925***
	(1.1988)	(1.1589)	(0.9566)	(0.8798)
Year and Industry FE	yes	yes	yes	yes
Std. Err. clusters	Firm&Year	Firm&Year	Firm&Year	Firm&Year
# of obs.	4168	4168	5646	5646
adj. R-sq	0.268	0.259	0.339	0.333

Column (3) and (4) reports the difference-in-difference results over the period before and after the Reg FD. First, the coefficient on RegFD dummy variable is positive, which shows that managers on average provide more information to the market through guidance after the regulation. It is consistent with the literuature that Reg FD improves the flow of financial information to the capital markets, for example, by increasing the firm's voluntary, forward-looking, earnings-related disclosures (Heflin et al., 2003). Second, the coefficient of dummy variable localCEO is negative, which suggests that local CEOs tend to provide less disclosure than nonlocal CEOs before Reg FD. This is consistent with main results in this

study. Third and more interesting, the coefficient on the interaction term is negative in each column. This finding suggests that local CEOs continue to provide less guidance relative to nonlocal CEOs after Reg FD. Moreover, the different in disclosure between local CEOs and nonlocal CEOs becomes larger after Reg FD.[7] This finding is not consistent with the private communication hypothesis, which suggests that the difference in guidance between local and nonlocal CEOs should decrease or disappear.

Overall, the evidence suggests that private communication can not explain the difference in management guidance provision between local and nonlocal CEOs.

5.5 Local CEOs' Disclosure During Home State Business Cycles

In this section, I examine another situation in which local CEOs might face less career concerns, and test whether they provide more management guidance. During economic downturns, firm usually have bad performance, which can be easily attributed to the economic conditions that are beyond managers' control. To some extent, this will alleviate local CEOs' job turnover concerns during economic hard times. Therefore, we might be able to find the difference between local and nonlocal CEOs decrease during economic downturns, due to the increase of management disclosure by local CEOs.

To test such hypothesis, I focus on home state economic cycles, which provides rich cross-state variations in economic conditions. It is especially interesting to this study since a local CEO and a firm's headquarter is related to a particular state. I use state-level personal income growth as the macroeconomic indicator (Korniotis and Kumar, 2013). Personal

[7]The empirical model takes the form of $Guidance = \alpha_0 + \alpha_1 localCEO + \alpha_2 RegFD + \alpha_3 localCEO \times RegFD + Controls\gamma' + e$, in which $RegFD$ is a dummy variable that equals 1 for years after 2000. To obtain inferences, I do the following calculations based on the empirical results. Before Reg FD (i.e. RegFD =0), the difference between local and nonlocal is -0.2414 in column (3) and -0.1795 in column (4). After Reg FD (i.e. RegFD=1), the average effect of being a local CEO is $\alpha_0 + \alpha_1 + \alpha_2 + \alpha_3$ and the average effect of being a nonlocal CEO $\alpha_0 + \alpha_2$. Therefore, the difference between a local and nonlocal CEO is $\alpha_1 + \alpha_3$, which is -0.7429 in column (3) and -0.4440 in column (4). Both differences are greater in magnitude than the difference before the Reg FD.

income growth is a better measure in the context since income directly influences people's consumption and investment decisions. State personal income data is obtained from Bureau of Economic Analysis at quarterly frequency. Growth rate of state labor income is measured as the log difference of labor income between the current quarter and same quarter of last year. Since I am interested in the annual measure of economic conditions, a dummy variable *badyear#* is constructed, where # takes a value in {6, 9, 12}. This dummy variable equals 1 if negative personal income growth is observed for 6, 9, or 12 months in the past 12 month window before earnings release.

To test the guidance issuance by local CEOs during state-level bad economic years, the model takes the following form.

$$Y = \beta_0 + \beta_1 \text{LocalCEO} + \beta_2 \text{badyear} + \beta_3 \text{LocalCEO} * \text{badyear} + \text{controls}\gamma' + \varepsilon$$

To compare the difference between local and nonlocal CEOs during economic downturns, I am interested in the coefficient the interacting term *LocalCEO * badyear*. A positive coefficient of the interaction term ($\beta_3 > 0$) will provide evidence that local CEOs tend to provide more guidance during bad economic conditions that will offset the difference between local CEOs and nonlocal CEOs.[8]

Table 5.7. provides the following empirical findings. First, I continue to find that local CEOs provide less guidance (both in the number of items and in frequency of guidance) than nonlocal CEOs, after controlling for bad year dummy and its interaction with local CEO dummy and all the control variables. The magnitude of the coefficients on *LocalCEO* ranges from -0.57 to -0.58 for three definitions of a bad year in Panel A (where the dependent variable is GuidanceNum) and -0.36 to -0.38 in Panel B (GuidanceFreq). These coefficients

[8]I make the following calculations. During good times (i.e. badyear=0), the difference in disclosure between a local and nonlocal CEO is the coefficient of dummy variable localCEO, β_1. During the bad times (i.e. badyear=1), the difference is $\beta_1 + \beta_3$. Compare the two differences and observe that β_3 is positive, we can see that the difference between local and nonlocal CEOs decrease during the bad times.

Table 5.7. Local CEOs' Management Guidance: Home State Business Cycles

		Panel A: Number of Guidance Items Dep. Var = *GuidanceNum*			Panel B. Frequency of Guidance Dep. Var. = *GuidanceFreq*		
		(1)	(2)	(3)	(1)	(2)	(3)
Neg. labor income months during last 12-month window		6	9	12	6	9	12
LocalCEO	β_1	-0.5748***	-0.5848***	-0.5848***	-0.3648***	-0.3814***	-0.3785***
		(0.1771)	(0.1716)	(0.1720)	(0.1073)	(0.1053)	(0.1060)
badyear6	β_2	-0.2054			-0.0580		
		(0.2702)			(0.1604)		
LocalCEO * badyear6	β_3	0.0179			-0.2181		
		(0.1762)			(0.1687)		
badyear9	β_2		-0.4020**			-0.3726***	
			(0.1966)			(0.0953)	
LocalCEO * badyear9	β_3		0.4832***			0.2381*	
			(0.1427)			(0.1300)	
badyear12	β_2			-0.9064***			-0.4280**
				(0.1987)			(0.1910)
LocalCEO * badyear12	β_3			0.9874***			0.2322
				(0.2606)			(0.3571)
Year&Ind FE		yes	yes	yes	yes	yes	yes
Controls		yes	yes	yes	yes	yes	yes
Constant		yes	yes	yes	yes	yes	yes
N		5153	5153	5153	5153	5153	5153
adj. R-sq		0.335	0.335	0.335	0.327	0.327	0.327

are of similar magnitude to the corresponding coefficients in Table 4, in which the coefficients are -0.60 for GuidanceNum and -0.37 for GuidanceFreq, respectively.

Second, in Panel A, the coefficients, β_3, on the interacting term are positive for all three definitions of a bad year. In addition, the effects become statistically significant if I define a bad year using more number of negative months of personal income growth (i.e. 9 months and 12 months). More months of negative personal income growth represents worse economic conditions. The increasing magnitude of coefficients on the interacting term shows evidence that the difference in local CEO and nonlocal CEOs becomes less during economics downturns. In Panel B, the coefficient β_3 is also positive, however, not as significant as in Panel A. These results are consistent with that managers are cautious about stopping or discontinuing guidance (i.e. reduce guidance frequency) during bad times. However, they have more discretion in increasing or decreasing the items in each guidance announcement.

Overall, the results are consistent with the hypothesis that local CEOs would be willing to disclose more information during bad years. It is also consistent with the perspective that managers have more discretion in the number of items in guidance announcement.

5.6 Local CEOs in Truly Local Firms and Dispersed Firms

The evidence from the previous section shows that local CEOs provide more information during economic bad years in their home states. However, all firms headquartered in the same state may not be equally subject to the state-level economic conditions. Firms with business operations in one or two states are more vulnerable to the state-level economic conditions. In contrast, firms that have operations spreading across more states might be less subject to regional economic risk. The variation provides an opportunity to explore how local CEOs in firms of different geographical distributions respond to home state adverse economic conditions.

All sample firms are categorized into truly local firms and dispersed firms based on the geographic dispersion of a firm's business operations (Garcia and Norli, 2012). In order to capture the firm's business activities in states, Garcia and Norli (2012) count the occurrence of state names in SEC 10-K filings in sections "Item 1: Business", "Item 2: Property", "Item 6: Consolidated Financial Data", and "Item 7: Management's Discussion and Analysis". Based on the definition, the geographic dispersion for a firm takes any integer value in {1, 2, ..., 50}. If more states are mentioned in these four sections, the more dispersed the firm is for a certain year. A firm is defined to be a truly local firm if its business activities are concentrated within a smaller geographic area. All firms are sorted by the number of state names mentioned, from the most to the least. Then the top 25 percentile firms are grouped as dispersed firms and bottom 25 percentile as truly local firms.

Table 5.9. reports the test results on two subsamples, the truly local firm subsample and the dispersed firm subsample. The results show that local CEOs in dispersed firms provide

Table 5.8. Local CEOs' Management Guidance at Firms of Different Geographical Dispersion

	Panel A: Number of Guidance Items Dependent Variable = *GuidanceNum*				Panel B: Frequency of Guidance Dependent Variable = *GuidanceFreq*			
	Local Firms		Dispersed Firms		Local Firms		Dispersed Firms	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
LocalCEO	-0.7447*	-0.7080**	-0.6902***	-0.5158***	-0.4792*	-0.4085**	-0.4229***	-0.2728**
	(0.4050)	(0.3412)	(0.2092)	(0.1850)	(0.2631)	(0.1952)	(0.1406)	(0.1304)
badyear	-0.9764	-0.2669	-1.1415	-0.2604	-0.6708*	-0.6496**	-0.1223	0.1458
	(0.7508)	(0.4243)	(0.7574)	(0.3078)	(0.3959)	(0.3149)	(0.3867)	(0.1993)
LocalCEO *badyear	0.7447	0.4057	1.5235**	0.9887***	0.7847*	0.5548*	0.3813	-0.0315
	(0.8731)	(0.8649)	(0.6245)	(0.3123)	(0.4396)	(0.3156)	(0.2776)	(0.1974)
Controls	no	yes	no	yes	no	yes	no	yes
Year & Ind FE	no	yes	no	yes	no	yes	no	yes
constant	yes	yes	yes	yes	yes	yes	yes	yes
N	979	979	2311	2311	979	979	2311	2311
adj. R-sq	0.006	0.391	0.009	0.337	0.005	0.382	0.006	0.344

more items in their guidance during bad times. For example, in Panel A for dispersed firms, the coefficient β_3 on interacting term *LocalCEO * badyear* is positive and statistically significant. Panel B shows little evidence that local CEOs differ in frequency of guidance during bad times.

Table 5.9. Local CEOs' Guidance at Firms of Different Geographical Dispersion

	Panel A Dependent Variable = GuidanceNum		Panel B Dependent Variable = GuidanceFreq	
	(1)	(2)	(3)	(4)
localCEO	-0.5748***	-0.5874***	-0.4448***	-0.4398***
	(0.2053)	(0.2148)	(0.1229)	(0.1194)
badyear	-0.6342***	-0.4586**	-0.5909***	-0.4270***
	(0.1787)	(0.1906)	(0.0662)	(0.0845)
Dispersed	0.0351	-0.1954	0.0457	-0.1681
	(0.1831)	(0.1798)	(0.1252)	(0.1250)
localCEO * badyear	0.4529**	0.3607*	0.3414	0.2427
	(0.1830)	(0.2179)	(0.2109)	(0.2229)
localCEO * Dispersed	-0.0625	0.0121	0.0639	0.1294
	(0.2274)	(0.2157)	(0.1585)	(0.1507)
localCEO * badyear * Dispersed	0.8985**	0.9430**	0.3596	0.3836
	(0.4056)	(0.4132)	(0.3091)	(0.3458)
Controls	no	yes	no	yes
Year and Ind Dummies	yes	yes	yes	yes
cluster F & Y	yes	yes	yes	yes
Constant	yes	yes	yes	yes
N	4978	4978	4978	4978
adj. R-sq	0.305	0.334	0.274	0.326

In Table 5.10., I test the hypotheses by combining truly local firms and dispersed firms in one sample. The results show the coefficient on this interacting term (*localCEO * Badyear **

Dispersed) is positively significant, which provide evidence that local CEOs from dispersed firms provide more guidance during adverse economic conditions in their home states.

CHAPTER 6

CONCLUSION

I take a novel and important managerial background, a manager's state of origin, and then test how it affects the managers' disclosure choices. The empirical analyses show the following results on how local CEOs differ in providing management guidance.

First, local CEOs on average provide less management guidance than nonlocal CEOs. This study examines two measures of guidance, including total number of items (e.g. EPS, cash flows, capital expenditures, etc.) in guidance and the frequency of guidance. The results show that local CEOs provide 20% fewer items in guidance or 17% less frequent guidance than nonlocal CEOs on average. To address endogeneity concerns due to omitted variables, I use instrumental variable strategy. Using the state population as a percentage of U.S. national population in the past as an instrument, the results are consistent with the hypothesis that local CEOs provide less guidance.

I further conduct two tests to address the underlying economic channels that local CEOs might provide less guidance. I examine the withholding bad news behavior by managers. I find that local CEOs tend to withhold bad news. I also examine the guidance provision before and after Reg FD, and find that the local CEOs continue to provide less guidance after Reg FD. These two findings together suggest that career concerns seems to be the underlying economic mechanism driving the disclosure difference between the two groups of CEOs.

After I establish the above results, I continue to examine whether local CEOs provide more guidance during adverse economic periods in their home states. The evidence shows that during adverse business conditions in their home states, local CEOs tend to provide more items in their management forecasts, but do not increase the frequency of guidance issuance. The results also indicate that local CEOs provide more guidance as the business conditions become worse. More specifically, as the number of months of negative personal

income growth increases, local CEOs provide more guidance. Further, I split the sample into firms that have business operations in fewer states (truly local firms) and firms that have business operations spreading across more states (dispersed firms). The analysis show that local CEOs from geographically dispersed firms provide more guidance items during adverse economic periods in their own states.

Overall, I propose and test how local CEOs differ in their voluntary disclosure choices. The results show local CEOs provide less management guidance on average. However, they provide more guidance during adverse economic conditions in their home states. This effect is largely driven by local CEOs from geographically dispersed firms. I conduct tests to distinguish the underlying channels that drives the disclosure differences and the findings suggest the career concerns as an explanation.

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