

A Comparison Between Local and National Reporting of Corporate Fraud

by

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DEDICATION

For my husband and daughter – thank you for always supporting me.

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All errors are my own.

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ABSTRACT

The United States media landscape is characterized by two different types of media outlets, local and national. This study examines how local media differ from national media in the dissemination and interpretation of corporate frauds. Using a local firm's AAER as a setting of fraud, I find that local reports are more original as measured by textual dissimilarity to existing media content. In particular, textual analysis indicates that local reports are more negative, put more emphasis on litigation topics and less on executive-related topics. In addition, the different content in local reports is informative to investors, as local reports reduce information asymmetry and resolve market uncertainty more than national reports do. This study builds on the recent literature that shows the effectiveness of local media, but does not distinguish between the ex ante deterrence effect from the ex post interpretation effect of media coverage. My study explicitly identifies the ex post channel and provides one of the first evidence comparing local versus national media.

CHAPTER 1

Introduction

Financial market participants' knowledge about corporate events crucially depends on media generated information. In addition to disseminating information of such events to readers, media reports analyze and interpret the implications of corporate events to help resolve market uncertainty and reduce information asymmetry.

The United States media landscape is characterised by two different types of media outlets, local and national. Yet many studies do not differentiate between them.¹ Since national media data sources are readily available, much of the work regarding the media's role tends to focus on national media. Local media, which produces more than half of the original news content in the United States, has been less studied.²

Recent studies that focus on local media (Heese et al. (2021); Kim et al. (2021)) have shown that local media by itself is effective in disciplining corporate misbehavior; however, they have not compared the relative informativeness of local versus national media, nor distinguished between the ex ante deterrence effect from the ex post interpretation effect of media coverage. This paper attempts to fill this gap by (1) comparing local and national media's reporting and, (2) focusing on the ex post interpretation role of media reporting.

In this paper, I use the term local media to refer to media outlets with limited circulation area

¹For example, Bushee et al. (2010) and Miller (2006) collect media articles from Factiva, which covers information sources from both national and regional media. Dai et al. (2015) use corporate news coverage data from RavenPack, which includes national media reports from Dow Jones news releases. Drake et al. (2014) also use business press data from RavenPack, consisting of only national media articles. Despite the differences of their data sources, all studies mentioned above attribute their findings to "the media" as a whole group.

²See Pew Research Center (2021) and Barthel (2019) for detailed data about the media industry.

that is close to the covered firm in the event. In this paper, I investigate local and national reporting on the same corporate event and examine whether and how local media cover corporate events and impact financial markets differently from national media.

For the most part, how local media differ from national media in the dissemination and interpretation of corporate events is an open empirical question. The media function as profit-maximizing entities that broadcast and create information to readers. Given an important corporate event, both national and local media have strong incentives to publish editorial reports that appeal to a great number of readers, regardless of their size and location (Call et al. (2022)).

However, the differences in media size and location may result in different information generating processes, affecting how local and national media conduct ex post interpretation of corporate events. In this study, I argue that their information generating processes differ in mainly two aspects. First, local media and national media have different comparative advantages when it comes to information acquisition and information processing. On the one hand, local media likely benefit from physical proximity to the covered firm. It may be easier for them to connect with the firm and access local information sources such as employees, vendors, and other affiliated entities. National media, on the other hand, are more likely to have better overall resources and reporter expertise. It may be easier for them to access, process, and contextualize financial information such as financial statements, analyst reports, and industry- or macro- level information. Second, local and national media have different reporting objectives when covering a local corporate event. Local reporters mainly write for the local community, but national reporters need to write for a broader audience, who may not be as interested in the local corporate event as the local audience (Gentzkow et al. (2014); Kim et al. (2021)).

I exploit the setting of financial frauds and SEC announcements to study my research question. Three reasons make financial frauds an ideal setting for my paper. First, frauds are highly visible events that draw attention from both local and national media. This enables the comparison between the two media types. Second, frauds are highly uncertain and complicated by nature. There is a high demand for editorial content from the readers. Therefore, I expect to find more

information in the reports covering frauds, which offers more power to my empirical tests. Third, SEC usually does not announce multiple frauds simultaneously. This allows my empirical tests to be cleaner.

To empirically examine the information content and financial market impacts of local and national media, I measure the occurrence of corporate frauds using SEC's Accounting and Auditing Enforcement Releases (AAER) between 2005 to 2015. I collect from Factiva local and national reports covering AAER events within 3 months after the SEC announcement of the fraud. I then hand collect firm- and media- specific information to compile a dataset from various sources. My primary sample contains 4,290 distinct reports covering 283 AAER events. In addition to commonly used financial data sources on SEC announcements, firm's financial statement characteristics, stock returns, analyst forecasts, and media reports, my data includes hand collected media circulation and branch locations, and locations of firms' major facilities.

I begin my analyses by offering descriptive comparisons of local and national coverage. I measure media coverage by the number of media outlets covering the event, the number of reports, reporting timeliness, and the media's coverage span. My empirical findings show that local and national coverage differ significantly in many ways. Specifically, there are more national media outlets than local media outlets that follow corporate frauds. National media as a group issue higher number of reports per event, cover the event in a more timely manner, and follow the event for a longer period of time than local media as a group. These differences are more pronounced when they cover frauds of big firms than small firms.

I then compare the degree of new content in the reports. Previous literature has shown that the media disseminates existing information and creates new information (Blankespoor et al. (2014); Miller and Skinner (2015)). Dissemination reports inform readers about the event. By nature, these reports are highly similar to existing media content. New information reports help readers understand the implications of the event. They tend to contain more new information content than dissemination reports. I create a report originality variable that captures the degree of new content in a report by measuring how textually dissimilar the report is to existing national and

local media content on the same event.³ To distinguish between media's dissemination reports and new information reports, I divide my sample of reports into a high originality sub-sample and a low originality sub-sample based on the previously mentioned report originality variable. I compare national and local media on the whole sample and on sub-samples with different report originality levels.

I find that local reporting is more original as measured by textual dissimilarity to existing local and national media content on the same event. Upon examining the report characteristics, textual analysis indicates that local reports are more negative, put more emphasis on litigation topics and less on executive-related topics.

The above differences suggest that local and national reports provide different content to investors. However, information diversity would not benefit investors unless the diverse content is informative. I examine the informativeness of local reports by measuring the short-term financial market reactions to the news reports in my sample. Using a firm's bid-ask spread as a proxy for information asymmetry, and abnormal stock return volatility and implied volatility of stock options as proxies for market uncertainty, I find that local reports are effective in reducing information asymmetry and resolving market uncertainty immediately after the report date. More interestingly, these effects are more pronounced among high originality reports and less so among low originality reports. The findings suggest that the new content in local reports is informative.

I then perform cross-sectional tests to explore whether the firm's geographic dispersion mitigates local media's report informativeness. I predict and document that the findings in my earlier sets of analyses showing local reports are effective in reducing information asymmetry and resolving market uncertainty are stronger (weaker) when the covered firm is less (more) geographically dispersed. Similar to my previous findings, the effect of the covered firm's geographic dispersion on local reports' informativeness gets stronger among high originality reports and weaker among low originality reports.

³I measure new content as a paragraph of texts that are different from (not similar to) existing paragraphs of texts in all other reports with report dates earlier than and the same as the report date of the paragraph. See Appendix C for details of how I calculate the originality of a report.

I conduct several additional tests. First, I examine national media with a local branch and compare them to local media and national media without a local branch. I find that national media with a local branch have less negative sentiments, less executive-related topics and more quotation-related content in their reports than national media without a local branch. However, local reports remain informative regardless of whether national reports have a local connection. Second, I consider an alternative explanation that my findings are driven by media's detecting of frauds prior to SEC announcements, instead of the ex post interpretation of frauds. To rule out this alternative, I limit my sample to reports covering frauds that are not detected by the media before SEC announcements and re-run all the analyses. My findings continue to hold. Third, I use alternative measures for report content characteristics and report informativeness as my dependent variables and re-run all the main analyses. The findings remain robust. All of them serve to reinforce the main findings, namely that local media are informative to investors in the ex post interpretation of corporate frauds.

My paper makes several contributions. First, I contribute to media literature by differentiating local and national media. Prior literature on media treats media as a homogeneous group and has not conducted such a horse-race between the two types. My study documents how local and national media differ, adding to our understanding of the full spectrum of different types of media. Specifically, I document the value of local media in enriching information diversity and providing informative content to investors.

Second, my research contributes to the nascent literature on local media. Previous literature on local media concentrates primarily on the consequences of local media closures (Gao et al. (2020); Heese et al. (2021); Kim et al. (2021)). These studies show that local media closures are followed by more corporate wrongdoings. This outcome could be due to the loss of media's ex ante deterrence effect, or the loss of media's ex post interpretation effect. My study fills the gap by analyzing local media's actual reports and establishing the existence of the second effect.

Finally, my study expands the literature on the media's role in corporate misconducts. Prior studies focus on media's ex ante detection of corporate misconducts. While the detection role is

important, only a small proportion of corporate misconducts are detected by the media.⁴ I examine the equally important and more common interpretation role of the media in corporate misconducts. My study shows how media, especially local media, help with the sequential understanding of corporate misconducts after the events become public.

The remainder of this paper is organized as follows. Chapter 2 discusses previous research and motivates my hypotheses. Chapter 3 describes the sample and data. Chapter 4 presents my research design and empirical results. Chapter 5 concludes.

⁴As Miller (2006) and Dyck et al. (2010) point out, about twenty percent to one third of accounting violations are detected by the media prior to SEC announcements.

CHAPTER 2

Related Literature and Hypotheses

2.1 Literature Review

The media play an important role in financial markets. Prior research shows that the media create new information and disseminate existing information to the public. A large body of literature has investigated the media, especially national media, and their role in deterring corporate misbehavior (Miller and Skinner (2015)). Studies show that they function as watchdogs and monitors to detect corporate and government misconduct. Studies also document that information provided by the media helps predict firms' financial performance and has significant market impact. For example, Rogers et al. (2016) and Dai et al. (2015) show that national media disseminates insider trading news and reduces insiders' future trading profits. Dyck et al. (2008) document that national press coverage increases the probability that a corporate governance violation is reversed.

Research on local media's role in corporate misconduct, however, is limited. A few previous studies provide mixed evidence on this subject. On the positive side, local media provide a unique perspective and sets of information that local readers and investors may find informative. Prior studies find that local media is effective in deterring local corporate misbehavior. For example, Heese et al. (2021) find that local media closures are associated with higher local firm violations, providing evidence that local press is an effective monitor of corporate misconduct. Kim et al. (2021) find that following newspaper closures and large industry layoffs, nearby public companies boost dividend payouts, suggesting the disappearance of local newspapers exacerbates the type of agency problems that tend to be remedied by higher dividends. The informativeness of local

media may also go beyond its circulation area. For example, Soo (2017) finds that local media's housing sentiment has robust predictive power for future house price growth.

On the negative side, prior literature shows that local media may not be effective monitors or information intermediaries. Gentzkow and Shapiro (2010) and Gentzkow et al. (2014) provide theoretical analysis and empirical evidence showing that local media cater to ideologically like-minded readers, which lead to potentially biased reports. Shapira and Zingales (2017) document that local media rely on local firms for advertising income, which can lead the local press to positively slant news about local companies. Gurun and Butler (2012) also document that when local media cover news about local companies, they use fewer negative words than when they report on non-local firms. They provide evidence that one of the reasons for this positive slant is the firms' local advertising expenditures. Taken together, the findings of prior research show that the role of local media in financial markets is an open empirical question.

The past two decades have witnessed dramatic changes in the media industry. According to Newspaper Fact Sheet by Pew Research Center, subscriptions and advertising revenues for print newspapers have declined by nearly 50% since 2000. Newsroom employment has also declined by about 30%. The decline of print newspaper is costly. Evidence shows that the newspaper industry's decay has led to a decline in the quantity of original news produced and disseminated in the U.S. (Barthel (2019)). Smaller local newspapers have suffered most in this decline.¹ There has been a heated discussion about the role and relevance of print media in response to these changes. My study is motivated by the current discussion but aims to answer a broader question in the context of the change in media industry.

Specifically, this study builds on prior literature in two ways. First, it provides one of the first evidence comparing the report content and relative effectiveness of local and national media, speaking to the potential loss of information diversity with local media closures. Second,

¹Not all media suffer equally when confronted with changing media industry. Some take a chance and enjoy surging subscriptions, for example, The New York Times and The Wall Street Journal. But most local media suffer from a continuous decline of subscriptions and advertising revenues. The expansion of national media and the decline in revenues also lead to changes in local media's publication strategy. See Barthel (2017) on the changes in media industry. Also see George and Waldfogel (2006) on the strategic shifts of local media.

it focuses on the media's ex post interpretation of frauds, deepening our understanding of the mechanism of media's role as effective information intermediaries. The answers to these research questions have to be empirically examined.

2.2 Hypotheses Development

My first research hypothesis explores whether and how local media reports provide original contents that differ from those of national media reports when covering financial fraud of the same firm.

Theoretically, media allocate their resources to generate news content and publish articles that appeal to their readers (Gentzkow and Shapiro (2010); Gentzkow et al. (2014)). When it comes to the comparison of report content and report informativeness, both local and national reporting have their respective comparative advantages in information acquisition and information processing. As previously discussed, local media benefit from geographic proximity to the firm and have easier access to local information sources. National media have better overall resources and process financial information more efficiently. In addition, they have different reporting objectives and need to write for two distinct groups of readers. I argue that the mechanism mentioned above plausibly results in distinct report content.

My argument is supported by both empirical and anecdotal evidence. Empirically, George and Waldfogel (2006) document that local media distinguish themselves from national media and choose reporting strategies to focus on a targeted, local-oriented readership, providing more local coverage and less national coverage.

Anecdotally, conversations with local reporters from a few Michigan local newspapers confirm this argument. For example, local reporters from The Detroit News consider that they are more capable of collecting local information than national media such as The Wall Street Journal, despite that The Wall Street Journal has an office in Detroit.² When it comes to news about local firms

²Local reporters argue that local media such as The Detroit News has been in Michigan for a long time (since 1873). The Wall Street Journal has a local office for about ten years. The local reporters believe in a strong bond

such as Ford, local reporters say that they know the readers will care more about content related to the local community, for example, local employment, than content related to the firm's financial performance. Most local reporters admittedly tailor their reports to interests of local readers. Conversations with reporters from national readers such as The Wall Street Journal provides details on the reason why The Wall Street Journal choose to cover local firm event in a different style. Those national media reporters consider it more efficient to utilize their expertise in business and finance rather than collecting information from local sources. In fact, they sometimes forgo local sources due to their low relevance to overall firm prospects.

Based on the discussion above, it is more likely that local media would differ from national media in their coverage of the local firm's fraud. However, I have no prediction as to how the local coverage differs from the national coverage.

One commonly used measure for media content is sentiments. On this regard, previous literature provides mixed evidence. Local media rely heavily on local firms for advertising revenues and, thus, have strong incentives to be positive about their advertisers (Gurun and Butler (2012); Shapira and Zingales (2017)). However, local media also have geographically concentrated readers who likely have private information about the firm. If local sources choose to provide information about the corporate misconduct, local media will have more negative sentiments in their reports.³

In addition to negative sentiments in the reports, I follow previous literature (Loughran and McDonald (2011)) and measure the litigation-related topics because financial frauds are often linked to litigation risks for the firm.

I use machine learning algorithm to create two new measures that capture executive-related topics and quotation-related topics in the reports. The executive-related content in the reports is correlated with media's access to firm managements and high-level information. The quotation-

with the local community and have confidence in connecting with local information sources. In addition, they point out that although The Wall Street Journal as a whole is more resourceful than The Detroit News, the Detroit office of The Wall Street Journal is not as resourceful as The Detroit News.

³There is evidence that local sources could be quite negative in financial frauds. For example, Dyck et al. (2010) find that employees are important players in detecting firm violations. Robinson et al. (2012) document that employees are more likely to whistle-blow when more people are aware of the fraud.

related content in the reports aims to capture media's access to specific information sources, which often appear in the form of direct quotations. Both new measures are linked to the comparative advantages of local media's information collection and information processing.

I state my first hypothesis as follows:

H1:Local media's report content is different from national media's report content on the same corporate fraud.

My next hypothesis explores the informativeness of local and national reports. A report is informative to financial markets if it meets the following criteria: (1) it provides value-relevant information to market participants, and (2) the information provided is non-trivial such that financial markets update the prior beliefs to merit measurable market reactions. I make two assumptions with these criteria. First, I assume that financial markets can distinguish between value-relevant information content and noise/biased information in the reports. Second, I assume that financial markets react to information in media reports quickly such that all updates on prior beliefs are completed and can be observed within a short period. Combining the criteria discussed above ensures I can use short-term market reaction measures to capture the report informativeness of local and national media.

Since fraud events are highly uncertain and often trigger information asymmetry among financial market participants, I examine two possible channels where media coverage would help interpret and contextualize the fraud events: information asymmetry and market uncertainty.⁴ An informative report is expected to reduce information asymmetry and resolve market uncertainty immediately after the report date.

Following my first hypothesis, I argue that the differences in content of the two media types also suggest that their informativeness to financial markets should be different.

Prior studies provide mixed evidence regarding the informativeness and efficacy of media reports in general. While some research shows that media play an important role as effective information intermediaries (Bushee et al., 2010; Dai et al., 2015), studies also show that media

⁴Following Blankspoor et al. (2014) and Verrecchia (2001), I use a firm's bid-ask spread to capture information asymmetry. Following Billings et al. (2015), I use implied volatility of stock options to capture investor uncertainty.

and individual reporters have incentives to issue less informative or even biased reports. On the individual reporter level, reporters are prone to publish sensational and controversial stories to grab readers' attention, usually in the form of bad news (Ahern and Sosyura, 2015; Call et al., 2022). Such incentive may be stronger for local media reporters. Anecdotal evidence shows that after they publish highly influential reports, local media reporters receive job offers from national media and have better career outcomes.

On the media outlet level, local media benefit from physical proximity to firms that may give them advantages in providing informative reports to financial markets. Physical proximity is often used in prior literature as a proxy for information advantages (Agarwal and Houswald, 2010; Kubic et al., 2017). In the contexts of my setting, I don't argue that local media have absolute information advantages over national media when covering local firms. As discussed previously, local media should have comparative advantages about local firms. However, local media can also be biased due to their connections to local firms (Gurun and Butler, 2012; Shapira and Zingales, 2017).⁵

Taken together, I do not have a clear prediction about the informativeness of media coverage. My second hypothesis is stated as follows:

H2: Local media's report informativeness is different from national media's report informativeness on the same corporate fraud.

⁵For more discussion on media's bias, see Gentzkow and Shapiro (2010), Beattie et al. (2021), and Reuter and Zitzewitz (2006).

CHAPTER 3

Sample, Data, and Descriptive Statistics

3.1 Data Sources and Sample Construction

I begin constructing my sample by obtaining the SEC's Accounting and Auditing Enforcement Releases (AAER) and corresponding announcement dates between 2005 and 2015. From the 1,573 AAER releases during my sample period, I remove releases that meet one or more of the following criteria: (1) omitted releases or releases without announcement dates, (2) releases that contain no firm-specific information, (3) releases that contain no CIK number or cannot be linked to a gvkey or CUSIP identifier, and (4) repetitive releases about the same firm issued within two weeks of each other.¹ This process gives me a sample of 462 fraud events.

Using company name and "SEC", "fraud" as keywords, I search Factiva to get all media reports within three months after the SEC announcement date. This step gives me a set of 6,429 reports covering 283 events.

I require that media reports in my sample do not have exactly the same texts. In other words, I eliminate re-posting reports² and duplicate reports³ from my sample. To be specific, I identify re-posting reports as follows. I require all reports in my sample to have report dates. As for report

¹The SEC often issues multiple releases about the same financial fraud event within several days. For example, a fraud event could trigger three SEC releases: the first about the firm, the second about firm executives who were involved in the fraud, and the third about the auditors who audited the firm's financial statements during the fraud period. Here I use the term "repetitive releases about the same firm" to refer to such a situation. When collecting my sample of news reports covering the event within three months after the SEC announcement date, I use the announcement date of the earliest AAER (if there are multiple AAER about the same event) as the announcement date to scrape Factiva reports.

²This refers to same texts from different media.

³I define duplicate reports as reports with the same texts from the same media.

time, only one-third of the reports of my sample have data on report time. For reports with the same texts from different media, if the reports have different report dates, the earliest report will be marked as the original report, and the others will be considered re-posting reports and removed from my sample. If reports with the same texts from different media have the same report date, I keep the first report in my search and remove the other reports. In order to be included in my sample, reports must not be re-posting reports from other media; or duplicate/re-printing reports from the same media. For all reports with the same texts, I keep only the first identifiable report in my sample. I also remove reports that are missing report dates, media name, or report titles.⁴

I match these Factiva reports to Compustat and EDGAR for firms' financial statement data, CRSP for stock data, IBES for analyst data, and OptionMetrics for stock option data. I collect media circulation data from the Alliance for Audited Media database. The Alliance for Audited Media database allows me to see historic media circulation area by zip code. I use it as the base for generating the *LOCAL_MEDIA* variable. I also hand collect the locations of firms' major facilities and locations of national media's local branches. In identifying national media's local branches, I distinguish between national media's local branches with reporting function and national media's local distribution offices. I only collect the locations of branches with reporting function.

Following prior literature, I use media circulation and firms' major facility location data to generate the *LOCAL_MEDIA* variable, which is the variable of interest in my study. *LOCAL_MEDIA* equals to one if the media outlet issuing the report is a regional media and close to the firm, and zero otherwise.⁵ Facing different events, different media outlets will be defined as local media. However, the definition of national media is based on a national circulation area and not event-specific. I compare locations of the covered firms' major facilities and locations of national

⁴This sample selection method could potentially create noises in my measure of the reports' originality. To address this issue, I run all my tests on a sub-sample of reports with different report dates. The results are robust.

⁵Following Gurun and Butler (2012), I define a media outlet as close to a firm if the media's office is within 100-mile distance from one of the firm's major facilities. Gurun and Butler (2012) use the distance between the media's office and the firm's headquarter. Firms may have major facilities other than headquarters (for example, a manufacturing factory or a research center with a significant number of local employees) that impact the information generating process of the media. Therefore, I broaden the definition in Gurun and Butler (2012) and use the distance between the media's office and the firm's main facilities to measure if the media and the firm are close in distance. Following Gentzkow and Shapiro (2010), I limit the "regional circulation" of local media to a maximum of two states.

media's branches to generate the *NATIONAL_BRANCH* variable, which is used in my robustness tests. This step gives me a sample of 5,296 news reports from both national and local media.

Since I am interested in how the information generating process of different media affects the way they disseminate and interpret corporate events for general readers and investors, I eliminate reports that are not produced by the media, not for general readers and investors, and reports that are not about a specific corporate event. These eliminated reports include: government disclosures about AAER event, reports for readers from particular professions, and reports that cover multiple events or firms. I remove government disclosures because these reports are not produced by media and are highly similar to the SEC announcements.⁶ I then remove reports for readers of particular professions because they are not intended to inform general readers and investors.⁷ Next, I remove reports that cover multiple events/firms. These reports are mostly review/highlight reports that summarize top stories within a certain period.⁸ They are not event-specific, and the majority of the texts are not about SEC AAER events. Finally, I remove reports covering the event from regional media that is not close to the covered firm's major facilities. I remove these reports because they are low in number and very similar to existing media content on the same event. In other words, regional media are usually not interested in covering a corporate event if the firm is not close to their readers. When they do cover the event, they are more likely to organize or rephrase existing media content rather than offering new content. This is consistent with the notion that media allocate their limited resources to cater to the interest of their readers.

3.2 Summary Statistics

Table 3.1 documents my sample selection procedure. My primary sample includes 4,290 reports that cover fraud events within three months after SEC announcements from both national and

⁶I use the term "government disclosures" to refer to disclosures and updates issued by the government, including local governments, law enforcement, and other government departments and agencies.

⁷For example, SEC AAER are often covered by media for accounting professions such as Accounting Today and Internal Auditor.

⁸For example, Dow Jones News Highlights Top Stories of the Day.

local media.

To provide additional sample characteristics, I outline the sample events and reports by year in Table 3.2 and events and reports by industry in Table 3.3. As the table shows, the number of reports and covered events generally decrease after 2010. This trend is consistent with data from other media research.⁹ Not all industries receive equal media coverage. Non-consumer product industries such as construction, electrical equipment, and machinery have a lower percentage of reports than the percentage of corresponding events. The top three industries that have the most media coverage are communication; personal and business services; and banking, insurance, and real estate.

Table 3.4 reports descriptive statistics for the key variables used in my analyses. With respect to firms' financial characteristics, the median firm in my sample is at the break-even point, with a median return on assets of 0%. Losses occur in 23% of observations. When comparing fraud firms in my sample to firms with violations in Heese et al. (2021), it is notable that firms in my sample are bigger in size, higher in leverage, and lower in ROA. This indicates that media cover corporate misconducts that draw broad attention, are highly risky, and are more severe.

The report characteristics variables reveal that the most common aspect in my sample of reports is negative sentiments. On average, negative words account for 3.08% of the texts in a report, followed by 1.72% texts about litigation topics, and less than 1% of executive- and quotation-related topics. The median report in my sample has an approximately 1,000 word count, indicating that the report provides information beyond disseminating the event.

3.3 Media's Reporting Behavior

I report descriptive comparisons between the reporting behaviors of national and local media in this section. I group my sample of 4,290 reports into national media reports and local media reports based on my primary variable of interest, the *LOCAL_MEDIA* variable. Following Gurun

⁹See Pew Research Center (2021).

and Butler (2012), I define *LOCAL_MEDIA* as equals to one if the media outlet issuing the report is a regional media and close to one of the major facilities of the covered firm in the report, and zero otherwise. I classify my sample of reports into high originality reports and low originality reports according to the degree of new content contained in the report, as measured by textual dissimilarity to existing media content. If a report has new content above (below) the sample median, it is classified as a high (low) originality report and marked by the *HIGH_ORIGIN* variable. *HIGH_ORIGIN* equals to one if new content in the report is above sample median, and zero otherwise.¹⁰

Table 3.5 and Table 3.6 present media's reporting behaviors in my sample. Table 3.5 summarizes the average reporting behaviors of local media and national media at group level. As Panel A shows, a median event in my sample is covered by 11 national media outlets and 3 local media outlets.¹¹ National media as a group issue 37 reports per event, which is about six times the total number of reports issued by local media. Among the reports issued by national media, approximately half (18 reports) are low originality reports and half (19 reports) are high originality reports. Among the reports from local media, the ratio of high originality reports to low originality reports is approximately two to one. With respect to reporting timeliness, national media cover the event in a more timely manner, with zero days between the SEC announcement date and the earliest report date.¹² Local media on average take about nearly two weeks (12 days) to issue their first report. National media also tend to follow an event for longer period of time (84 days between the first report date and the last report date), whereas local media cover the event for a shorter period of about one and a half months (51 days). When considering the differences in reporting behaviors between the two types of media, it is obvious that all their key reporting behavior variables are significantly different from each other.

¹⁰See Appendix A and Appendix C for the definition and calculation of high originality reports and low originality reports.

¹¹I don't intend to draw any conclusion on the media's coverage decision here. First, there are simply more national media than local media. Second, I am interested in how national media and local media differ in their reporting behaviors. The decision of whether to cover a corporate event is beyond the scope of my study.

¹²I measure reporting timeliness by the number of days between the SEC announcement date and the report date of the earliest report among the group.

An examination of Panel B and Panel C reveals that the differences between national and local media's reporting behaviors are greater when they cover small firms and less so when they cover big firms. This is primarily driven by national media. National media increases the number of reports, issues more disseminating reports, covers the event in a more timely manner, and follows the event for a longer period when covering big firms. Local media reporting behaviors also changes with firm size, but in a less dramatic way. Both national and local media increase the number of low originality reports when they cover big firms, suggesting that the media choose to put more effort in dissemination roles when the event is about a big firm. One feature worth noticing is that local media seems more proactive when covering small firms. As the mean statistics in Panel C shows, local media issues a higher proportion of high originality reports and covers the news more timely when the events are about small firms.

Next, I dis-aggregate national and local media into media outlet levels. Again, local and national media show significantly distinct reporting behaviors at media outlet level in Table 3.6. Overall, national media issue a higher number of reports, cover the event in a more timely fashion, and follow the event for a longer period of time than local media. Both national and local media are more timely and have longer coverage span when covering big firms. The key reporting behaviors of national media outlets are significantly different from those of local media outlets. These differences are greater when they cover small firms than when they cover big firms. I see it as evidence that local media fill the information gap when national media forgo the coverage of small firm events.

In summary, national media and local media's reporting behaviors differ significantly at group and media outlet levels. The statistics also indicate that local media and national media probably play different roles when covering fraud events. National media, with more timely coverage and a higher ratio of low originality reports, function more to disseminate the event information. Local media, with a higher ratio of high originality reports and less timely coverage, focus more on the interpretation of the events.

Table 3.1: Sample Selection

This table presents the sample selection of SEC AAER events and Factiva reports used in this study.

| Filters | Observations |
|---|--------------|
| SEC press releases between the year 2005 to 2015 (release number 2158 to 3730) | 1,573 |
| Less: Omitted releases or releases with no release date | (24) |
| Less: Releases that cannot be linked to a specific firm | (208) |
| Less: Press releases with no CIK number | (185) |
| Less: Press releases that cannot be linked to a gvkey or CUSIP | (496) |
| Less: Repetitive releases about the same firm within two weeks | (198) |
| Total firm-specific SEC press releases | 462 |
| Less: Press releases with no media coverage | (179) |
| Total firm-specific AAER events with media coverage | 283 |
| | |
| Factiva news reports within three months after the SEC press release dates | 6,439 |
| Less: Duplicate reports from the same media | (543) |
| Less: Missing report date, media name or other key variables | (71) |
| Less: Missing Compustat or CRSP data | (529) |
| Total remaining observations | 5,296 |
| Less: Reports from media with limited circulation area that is far from the firm's major facility | (133) |
| Less: Government disclosures or reports for particular professions | (586) |
| Less: Review/Highlights reports that cover multiple events or multiple firms | (287) |
| Final sample | 4,290 |

Table 3.2: News Reports and Fraud Events by Year

This table lists the sample of reports and covered fraud events by year.

| Year | News Reports | | | Fraud Events | | |
|-------|--------------|---------|------------|--------------|---------|------------|
| | Number | Percent | Cum. Perc. | Number | Percent | Cum. Perc. |
| 2005 | 603 | 14.06 | 14.06 | 28 | 9.89 | 9.89 |
| 2006 | 474 | 11.05 | 25.1 | 27 | 9.54 | 19.43 |
| 2007 | 658 | 15.34 | 40.44 | 47 | 16.61 | 36.04 |
| 2008 | 418 | 9.74 | 50.19 | 33 | 11.66 | 47.7 |
| 2009 | 680 | 15.85 | 66.04 | 45 | 15.9 | 63.6 |
| 2010 | 326 | 7.6 | 73.64 | 22 | 7.77 | 71.38 |
| 2011 | 210 | 4.9 | 78.53 | 22 | 7.77 | 79.15 |
| 2012 | 280 | 6.53 | 85.06 | 16 | 5.65 | 84.81 |
| 2013 | 372 | 8.67 | 93.73 | 19 | 6.71 | 91.52 |
| 2014 | 172 | 4.01 | 97.74 | 14 | 4.95 | 96.47 |
| 2015 | 97 | 2.26 | 100 | 10 | 3.53 | 100 |
| Total | 4,290 | 100 | | 283 | 100 | |

Table 3.3: News Reports and Fraud Events by Industry

This table lists the sample of news reports and covered fraud events by Fama-French thirty industry classification.

| Industry | News Reports | | | Fraud Events | | |
|--|--------------|---------|------------|--------------|---------|------------|
| | Number | Percent | Cum. Perc. | Number | Percent | Cum. Perc. |
| Food Products | 72 | 1.68 | 1.68 | 8 | 2.83 | 2.83 |
| Beer & Liquor | 2 | 0.05 | 1.72 | 1 | 0.35 | 3.18 |
| Recreation | 15 | 0.35 | 2.07 | 4 | 1.41 | 4.59 |
| Apparel | 25 | 0.58 | 2.66 | 5 | 1.77 | 6.36 |
| Healthcare, Medical Equipment, Pharmaceutical Products | 149 | 3.47 | 6.13 | 16 | 5.65 | 12.01 |
| Chemicals | 19 | 0.44 | 6.57 | 7 | 2.47 | 14.49 |
| Construction and Construction Materials | 56 | 1.31 | 7.88 | 6 | 2.12 | 16.61 |
| Steel Works Etc | 31 | 0.72 | 8.6 | 4 | 1.41 | 18.02 |
| Fabricated Products and Machinery | 154 | 3.59 | 12.19 | 11 | 3.89 | 21.91 |
| Electrical Equipment | 19 | 0.44 | 12.63 | 5 | 1.77 | 23.67 |
| Automobiles and Trucks | 35 | 0.82 | 13.45 | 6 | 2.12 | 25.8 |
| Aircraft, ships, and railroad equipment | 15 | 0.35 | 13.8 | 2 | 0.71 | 26.5 |
| Petroleum and Natural Gas | 170 | 3.96 | 17.76 | 12 | 4.24 | 30.74 |
| Utilities | 79 | 1.84 | 19.6 | 9 | 3.18 | 33.92 |
| Communication | 450 | 10.49 | 30.09 | 12 | 4.24 | 38.16 |
| Personal and Business Services | 860 | 20.05 | 50.14 | 60 | 21.2 | 59.36 |
| Business Equipment | 216 | 5.03 | 55.17 | 36 | 12.72 | 72.08 |
| Business Supplies and Shipping Containers | 21 | 0.49 | 55.66 | 2 | 0.71 | 72.79 |
| Transportation | 15 | 0.35 | 56.01 | 2 | 0.71 | 73.5 |
| Wholesale | 40 | 0.93 | 56.95 | 10 | 3.53 | 77.03 |
| Retail | 185 | 4.31 | 61.26 | 12 | 4.24 | 81.27 |
| Restaurants, Hotels, Motels | 26 | 0.61 | 61.86 | 1 | 0.35 | 81.63 |
| Banking, Insurance, Real Estate, Trading | 1,420 | 33.1 | 94.97 | 38 | 13.43 | 95.05 |
| Everything Else | 216 | 5.03 | 100 | 14 | 4.95 | 100 |
| Total | 4,290 | 100 | | 283 | 100 | |

Table 3.4: Descriptive Statistics

This table reports summary statistics for the key variables in my sample. All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels. Variable definitions are in Appendix A.

| Variable | N | Mean | S.D. | Q1 | Median | Q3 |
|--------------------------------|-------|---------|---------|---------|---------|---------|
| <i>Firm Characteristics</i> | | | | | | |
| LN_AT | 4,290 | 9.8776 | 3.0041 | 7.7819 | 9.8640 | 12.6017 |
| ROA | 4,290 | 0.0150 | 0.0834 | 0.0000 | 0.0000 | 0.0469 |
| BOOK_LEV | 4,290 | 0.2965 | 0.2753 | 0.0614 | 0.2963 | 0.5118 |
| BTM | 4,290 | 0.9888 | 1.7705 | 0.3195 | 0.5729 | 0.9208 |
| CAP | 4,290 | 0.0309 | 0.0405 | 0.0000 | 0.0142 | 0.0384 |
| MVE | 4,290 | 40200 | 65200 | 1200 | 10500 | 37700 |
| IDIO_RISK | 4,290 | 0.1348 | 0.1037 | 0.0717 | 0.1095 | 0.1465 |
| N_FOLLOW | 4,290 | 17.2592 | 13.0864 | 6.0000 | 16.0000 | 25.0000 |
| N_SEGMENT | 4,290 | 5.6790 | 5.3830 | 2.0000 | 4.0000 | 7.0000 |
| INST_OWN | 4,290 | 0.4404 | 0.3494 | 0.0000 | 0.4968 | 0.7510 |
| TQ | 4,290 | 1.0000 | 0.8300 | 0.2847 | 0.8307 | 1.3171 |
| XAD | 4,290 | 0.0099 | 0.0211 | 0.0000 | 0.0000 | 0.0053 |
| XRD | 4,290 | 0.0201 | 0.0349 | 0.0000 | 0.0000 | 0.0235 |
| SALE | 4,290 | 0.6163 | 0.6649 | 0.0000 | 0.4796 | 0.9376 |
| SALE_GRTH | 4,290 | 0.0158 | 0.2158 | -0.0373 | 0.0000 | 0.0559 |
| <i>Report Characteristics</i> | | | | | | |
| NEGATIVITY | 4,290 | 0.0308 | 0.0220 | 0.0112 | 0.0237 | 0.0481 |
| LITIGATION | 4,290 | 0.0172 | 0.0150 | 0.0044 | 0.0127 | 0.0263 |
| QUOTATION | 4,290 | 0.0046 | 0.0054 | 0.0003 | 0.0021 | 0.0079 |
| EXECUTIVE | 4,290 | 0.0076 | 0.0071 | 0.0026 | 0.0052 | 0.0110 |
| LENGTH | 4,290 | 7.2945 | 2.0194 | 5.5582 | 6.8872 | 8.5067 |
| <i>Market Impact Variables</i> | | | | | | |
| Δ BA_SPREAD | 4,290 | 0.0001 | 0.0043 | -0.0005 | 0.0000 | 0.0006 |
| Δ IV_OPTION | 3,759 | -0.0022 | 0.0453 | -0.0167 | -0.0026 | 0.0107 |
| ABN_VOLATILITY | 4,290 | 1.5010 | 1.9232 | 0.2273 | 0.9249 | 1.8648 |

Table 3.5: Reporting Behavior at Media Group Level

This table reports summary statistics for the reporting behavior of national and local media at group level. Panel A lists the overall reporting behavior of national and local media. Panel B lists the reporting behavior of national and local media when the covered firm’s size is above the sample median. Panel C lists the key reporting behavior of national and local media when the covered firm’s size is below the sample median. In all panels, the “Timeliness” measures how fast the media covers the event after the SEC announcement, calculated as the number of days between the SEC announcement date and the first report date. The “Coverage Span” measures how long the media follow the event, calculated as the number of days between the first report date and the last report date.

Panel A: Whole Sample

| | National Media | | Local Media | | Diff in Mean |
|-----------------------------------|----------------|---------|-------------|---------|--------------|
| | Median | Mean | Median | Mean | |
| Number of Media | 11 | 12.5101 | 3 | 3.3662 | 9.1439*** |
| Number of Reports | 37 | 38.7095 | 6 | 7.3638 | 31.3456*** |
| Number of Low Original Reports | 18 | 21.9311 | 2 | 3.2887 | 18.6424*** |
| Number of Highly Original Reports | 19 | 17.6962 | 4 | 4.0751 | 13.6211*** |
| Timeliness | 0 | 11.4725 | 12 | 20.2535 | 8.7811*** |
| Coverage Span | 84 | 76.9220 | 51 | 47.8498 | 29.0723*** |

Panel B: Big Firms Coverage

| | National Media | | Local Media | | Diff in Mean |
|-----------------------------------|----------------|---------|-------------|---------|--------------|
| | Median | Mean | Median | Mean | |
| Number of Media | 21 | 22.8916 | 5 | 5.4628 | 17.4288*** |
| Number of Reports | 59 | 53.7331 | 10 | 9.9256 | 43.8075*** |
| Number of Low Original Reports | 36 | 32.5829 | 5 | 4.6074 | 27.9755*** |
| Number of Highly Original Reports | 24 | 22.5942 | 5 | 5.3182 | 17.276*** |
| Timeliness | 0 | 7.7475 | 9 | 19.2934 | 11.5459*** |
| Coverage Span | 86 | 77.9339 | 63 | 57.8554 | 20.0785*** |

Panel C: Small Firms Coverage

| | National Media | | Local Media | | Diff in Mean |
|-----------------------------------|----------------|---------|-------------|---------|--------------|
| | Median | Mean | Median | Mean | |
| Number of Media | 10 | 10.0419 | 2 | 2.9239 | 7.118*** |
| Number of Reports | 18 | 23.4814 | 3 | 3.9946 | 19.4868*** |
| Number of Low Original Reports | 7 | 11.1345 | 1 | 1.5543 | 9.5802*** |
| Number of Highly Original Reports | 10 | 12.7316 | 2 | 2.4402 | 10.2914*** |
| Timeliness | 0 | 5.1120 | 9 | 18.8859 | 13.7739*** |
| Coverage Span | 80 | 75.8964 | 36 | 34.6902 | 41.2062*** |

Table 3.6: Reporting Behavior at Media Outlet Level

This table reports summary statistics for breaking down the reporting behavior of national and local media at the media outlet level. Panel A lists the reporting behavior of national and local media in the whole sample. Panel B lists key reporting behavior of national and local media at the media outlet level when the covered firm's size is above the sample median. Panel C lists key reporting behavior of national and local media at the media outlet level when the covered firm's size is below the sample median. In all panels, the "Timeliness" measures how fast the media covers the event after the SEC announcements, calculated as the number of days between the SEC announcement date and the first report date. The "Coverage Span" is the number of days between the first report date and the last report date.

Panel A: Whole Sample

| | National Media | | Local Media | | Diff in Mean |
|-----------------------------------|----------------|---------|-------------|---------|--------------|
| | Median | Mean | Median | Mean | |
| Number of Reports | 2 | 6.6120 | 1 | 2.3991 | 4.2130*** |
| Number of Low Original Reports | 1 | 3.5434 | 1 | 0.9014 | 2.6420*** |
| Number of Highly Original Reports | 1 | 3.1099 | 1 | 1.4977 | 1.6123*** |
| Timeliness | 15 | 19.7921 | 22 | 28.8545 | 9.0624*** |
| Coverage Span | 19 | 31.8906 | 0 | 17.1831 | 14.7075*** |

Panel B: Big Firms Coverage

| | National Media | | Local Media | | Diff in Mean |
|-----------------------------------|----------------|---------|-------------|---------|--------------|
| | Median | Mean | Median | Mean | |
| Number of Reports | 3 | 7.1394 | 2 | 2.8678 | 4.2716*** |
| Number of Low Original Reports | 2 | 4.3629 | 1 | 1.1983 | 3.1646*** |
| Number of Highly Original Reports | 1 | 2.8198 | 1 | 1.6694 | 1.1504*** |
| Timeliness | 12 | 16.1131 | 17 | 27.3678 | 11.2547*** |
| Coverage Span | 30 | 34.7666 | 4 | 21.8719 | 12.8947*** |

Panel C: Small Firms Coverage

| | National Media | | Local Media | | Diff in Mean |
|-----------------------------------|----------------|---------|-------------|---------|--------------|
| | Median | Mean | Median | Mean | |
| Number of Reports | 2 | 6.0774 | 1 | 1.7826 | 4.2948*** |
| Number of Low Original Reports | 1 | 2.7127 | 0 | 0.5109 | 2.2018*** |
| Number of Highly Original Reports | 1 | 3.404 | 1 | 1.2717 | 2.1323*** |
| Timeliness | 16 | 23.3851 | 20 | 29.2337 | 5.8486*** |
| Coverage Span | 5 | 28.9754 | 0 | 11.0163 | 17.9591*** |

CHAPTER 4

Empirical Design and Results

I present my empirical findings in the following sections. Section 4.1 presents my main analyses. Specifically, Section 4.1.1 investigates how local reports differ in report content from national reports. Section 4.1.2 examines report informativeness of local and national reports. Section 4.2 provides cross-sectional analyses by considering whether local media's report informativeness varies by the covered firm's geographic dispersion. Section 4.3 provides robustness testing. Section 4.4 provides supplementary discussion.

4.1 Main Analyses

4.1.1 Report Content Differences

In Section 3.3, I have shown that local and national coverage of the same fraud event differ significantly from each other in many key aspects. These differences in their reporting behaviors suggest that the actual report content might be different. To examine how local media reports differ from national media reports when covering a fraud event of the same local firm, I estimate the following OLS specification at the report level:

$$REPORT_CHAR_{i,j} = \alpha_0 + \beta_1 LOCAL_MEDIA_{i,j} + \sum \beta_k CONTROL_k + \lambda_i + \theta_i + \epsilon_{i,j}, \quad (4.1)$$

where i denotes the fraud, and j denotes the report. The left-hand-side variables $REPORT_CHAR$

include several measures for report characteristics. *LOCAL_MEDIA* is the variable of interest. Following Gurun and Butler (2012), I define *LOCAL_MEDIA* as equals to one if the media outlet issuing the report is a regional media and close to one of the major facilities of the covered firm in the report, and zero otherwise. I classify my sample of reports into high originality reports and low originality reports according to the degree of new content contained in the report. If a report has new content above (below) the sample median, then it will be classified as a high (low) originality report and identified by the *HIGH_ORIGIN* variable.

I choose four measures of report characteristics. First, following previous studies on the media's slant (Loughran and McDonald (2011)), I measure the negative sentiments in the reports. Second, financial frauds are commonly linked to litigation concerns for the firms. Therefore, it is plausible that media discuss potential litigation risks/costs in their reports. I follow Loughran and McDonald (2011) and use their litigious word list to measure litigation-related content in the reports.

Third, financial frauds often result in management turnovers or executive lawsuits. A material amount of reports from both local and national media cover content about executives and their career decisions. Therefore, I use machine learning algorithm to create a new measure that captures executive-related content.

Fourth, as discussed in detail in 2, local media have comparative advantages in collecting local information sources. The local information collection tends to appear as direct quotation in the reports. Therefore, I use machine learning algorithm to create a new measure that captures quotation-related content. The technical details of how I create the new measure can be found in Appendix B.

I include a vector of various factors that prior literature suggests are associated with media report content. I control for the firm's operating performance, profitability, leverage, capital expenditures, firm size, book-to-market ratio, analyst following, institutional ownership, stock volatility and the length of the report. In addition, I include industry (λ_i) and year (θ_i) fixed effects. Standard errors are clustered at the industry level.

Table 4.1 reports my results on comparing report content characteristics. I document significantly non-zero coefficients on *LOCAL_MEDIA* across most specifications. The coefficient on *LOCAL_MEDIA* is significant and positive in Column (1), suggesting that local reports are more negative than national reports. In terms of economic significance, given that the mean of *NEGATIVITY* is 0.0308, the coefficient means a 40% increase from the mean. The average length of a news report in my sample is about 1,000 words. Then that means on average 10 more negative words, which on average spreads through three or four sentences to a whole paragraph in length.

The coefficient on *LOCAL_MEDIA* is significant and positive in Column (2), indicating that local reports have more litigious content than national reports. In terms of economic significance, this means a 80% increase from the mean (0.0172). In the number of words, local media reports have on average twelve more litigation words than national media reports, which indicates a significant differences between local and national reports on the topic of litigious consequences.

In Column (3), the coefficient on *LOCAL_MEDIA* is significant and negative. This shows that local reports talk less about executives than national reports do. In column (4), the coefficient on *LOCAL_MEDIA* is not significant, indicating that local and national media reports do not differ significantly in quotation-related content on average.

Besides the overall significant coefficients on the *LOCAL_MEDIA* variable, I investigate whether the differences in report content between local and national reports vary with report originality. I compare the coefficients on *LOCAL_MEDIA* in the low originality reports sub-sample and the high originality reports sub-sample and list the results in the “Diff in Coefficients” row in Table 4.2. I find the absolute value of coefficient on the *LOCAL_MEDIA* variable is smallest in the low originality sub-sample, as shown in Panel B, and biggest in the high originality sub-sample, which can be seen in Panel A. This trend in the magnitudes of coefficients on *LOCAL_MEDIA* across different samples are consistent in all my specifications. However, the differences in coefficients are not significant for most specifications, except for Column (2), where I measure the litigious content in reports.

In summary, Table 4.1 and Table 4.2 show that local and national reports differ in report con-

tent. Such differences are slightly smaller among low originality reports and more notable among high originality reports. This is consistent with the notion that local and national media have different information generating processes that lead to different report content. The differences in report content are magnified when both local and national media produce new content instead of organizing and re-phrasing existing content.

4.1.2 Report Informativeness

Section 4.1.1 documents that local media and national media differ in their report content when they cover the same local fraud event. However, these differences in report content won't matter if they are due to bias or irrelevant content. In this section, I examine whether financial markets react to the differences in report content between local and national reports. I estimate the following OLS model at the report level:

$$\Delta MARKET_{i,j} = \alpha_0 + \beta_1 LOCAL_MEDIA_{i,j} + \sum \beta_k CONTROL_k + \lambda_i + \theta_i + \epsilon_{i,j}, \quad (4.2)$$

where i denotes the fraud and j denotes the report. The left-hand-side variable $\Delta MARKET$ represents proxies for market reaction measures including ΔBA_SPREAD , change in bid-ask spread; ΔIV_OPTION , change in implied volatility of stock options; and $ABN_VOLATILITY$, market-adjusted abnormal stock return volatility. $LOCAL_MEDIA$ is the variable of interest. I include firm- and report- specific characteristics as my controls in the regression model as in equation (4.1). I also include industry (λ_i) and year (θ_i) fixed effects and cluster standard errors at the industry level.

Following prior literature (Billings et al. (2015); Blankespoor et al. (2014)), I choose these three variables to be my market outcome measures, because they capture the change in information asymmetry and market uncertainty after the report date. As discussed in Chapter 2, I conjecture that an informative report should contain content that reduces information asymmetry and resolves market uncertainty. In other words, I expect the market outcome variables to be more

negative (less positive) if financial markets consider the report to be more informative. If financial markets react to the different content in local media reports, I expect β_1 to be significantly non-zero. To be specific, if financial markets consider local media reports to be informative, β_1 should be significantly negative.

Table 4.3 presents the results on whether financial markets react to different content in local and national reports. Following similar research design in Section 4.1.1, I investigate the differences in market reactions on three samples. First, I explore the differences in the whole sample, as listed in Panel A. Second, I investigate the differences in a sub-sample of high originality reports. The results are listed in Panel B. Third, I look at the differences in a sub-sample of low originality reports and list the results in Panel C.

I document consistent and negative coefficients on *LOCAL_MEDIA* in all my specifications, which means that local media reports significantly reduce information asymmetry and resolve market uncertainty immediately after the report dates. This suggests that, overall, financial markets consider local media reports as informative.

I then investigate if local media's report informativeness varies with report originality. I compare the coefficients on *LOCAL_MEDIA* in the low originality sub-sample and the high originality sub-sample. I document that the coefficient on *LOCAL_MEDIA* is smallest in magnitude in the low originality sub-sample, and biggest in magnitude in the high originality sub-sample. This trend in the magnitudes of coefficients on *LOCAL_MEDIA* across different samples is consistent in all my specifications. This is consistent with the results in Section 4.1.1, where I find that local reports' informativeness increases in report originality. Results in Panel C also show that local media's report informativeness is not significant in the sub-sample of low originality reports. On the contrary, market reactions to local reports are significant in the sub-sample of high originality reports.

I document comparisons of coefficients between the high originality sub-sample and the local originality sub-sample in the "Diff in Coefficients" row in Panel B. It shows that the differences in coefficients between the two sub-samples are significant for most market outcome variables.

In summary, Table 4.3 shows that financial markets react differently to information content in local and national reports. As measured by a group of short-term market outcome variables immediately after the report date, local media reports are effective in reducing information asymmetry and resolving market uncertainty. Local media's report informativeness is consistent with the differences in report content in Section 4.1.1. When combined, these results indicate that financial markets consider the new content in local reports as informative. The effect increases when media provide more new content instead of organizing and re-phrasing existing content.

4.2 Cross-Sectional Analyses

After showing that local and national reports differ in report content and report informativeness to financial markets, I conduct analyses conditional on a potential channel that is expected to mitigate differences in their report informativeness.

I examine whether geographic dispersion of the covered firm affects the financial market impacts of local reports. I conjecture that when a covered firm is more geographically dispersed (concentrated), the report informativeness of local media will be weaker (stronger), as local media have access to smaller (bigger) fractions of value-relevant information about the firm, and national media have higher (lower) incentives to gather and process firm information for their readers.

To perform the analysis, I follow prior literature (García and Øyvind Norli (2012)) and use the variable *GEO_DISP* to measure the geographic diversity of a firm. I define a variable called *HIGH_DISP* based on whether *GEO_DISP* of the firm is above or below the sample median. I split the reports in my sample according to the *HIGH_DISP* variable into reports covering *HIGH_DISP* firms and reports covering low geographic dispersion firms. I then estimate equation (4.2) in both the high dispersion sub-sample and low dispersion sub-sample and compare coefficients on *LOCAL_MEDIA* across the two sub-samples and within different originality levels. I expect local reports in the low dispersion sub-sample to be more informative to financial markets than local

reports in the high dispersion sub-sample. That is, I expect to find more negative coefficients on *LOCAL MEDIA* in the low dispersion sub-sample than in the high dispersion sub-sample.

My cross-sectional analyses are reported in Table 4.4. I compare the effects of firms' geographic dispersion on local media's report informativeness with all three market outcome variables. I predict and document more negative coefficients on *LOCAL MEDIA* in the low dispersion sub-samples than in the high dispersion sub-samples. When comparing this effect across reports of different originality levels, I find that effects mentioned above are not significant among reports with low originality, as shown in Panel C. On the contrary, I document significant differences in coefficients on *LOCAL MEDIA* between high dispersion sub-sample and low dispersion sub-sample among reports with high originality, as shown in Panel B. This is consistent with my previous findings in Section 4.1.2, which suggest that local media's report informativeness gets greater when the reports are high in originality.

More interestingly, such effects are magnified when the reports are highly original. This is notable when comparing Table 4.4, Panel B to Table 4.3, Panel B. Column (3) in Table 4.3, Panel B shows that differences in report informativeness (measured by changes in implied volatility of stock options) between local and national reports are not significant among high originality reports. Column (6) in Table 4.4, Panel B shows that the differences are significant among high originality reports when the covered firm is less graphically dispersed.

Collectively, Table 4.4 show that when a firm is more geographically dispersed (concentrated), the results that local media reports reduce information asymmetry and resolve market uncertainty are weaker (stronger). This is consistent with the notion that geographic dispersion of the covered firm mitigates differences in the information generating process of local and national media, and thus leads to variations in informativeness of local media reports.

4.3 Robustness Testing

4.3.1 National Media with Local Branches

This section includes robustness checks relating to my definition of local and national media. I define *LOCAL_MEDIA* by location and circulation area of the media outlet issuing the report. By this definition, a national media in my sample is a media outlet with circulation area all over the United States. However, national media often have multiple branches across the nation, and sometimes could have a branch close to the covered firm. For example, The Wall Street Journal has an office in Detroit that is close to Michigan local firms such as Ford. I refer to this type of national media as national media with a local branch.¹

In my previous analyses, I argue that local and national media differ in their information generating process, which is manifested in two aspects, comparative advantages in information collection and different reporting objectives. The difference in information generating processes changes when national media have local branches. Specifically, when national media outlets have branches located near the firms they cover, they are able to collect local, firm-specific information more easily than their national peers without local branches. This advantage in information collection will be a key factor in enabling national media outlets to produce more comprehensive and accurate coverage of local firms than would otherwise be possible.

However, the advantages of national media outlets with local branches go beyond simple information collection. These outlets also have different reporting objectives than national media without local branches. In particular, the reason why national media outlets have local branches in these locations may be that they consider the local community an important part of their readership, which motivates them to cater more to the local community. This can lead to a different approach to reporting, with a greater emphasis on local issues and concerns than might be found in national media without local branches.

¹A national media can potentially have multiple branches close to the covered firm's major facilities. For simplicity, I will refer to them as national media with a local branch if they have at least one branch close to the covered firm.

Because it's plausible that national media with local branches function more like local media, will information content in local reports be dominated in this case? Will my findings hold when national media have local branches? Are local reports still informative to investors when national media have access to local, firm-specific information? To address this question, I augment the models in Section 4.1.1 and Section 4.1.2 with the *NATIONAL_BRANCH* variable and re-run my main analyses.

I test the report content of national media with a local branch with the following model:

$$REPORT_CHAR_{i,j} = \alpha_0 + \beta_1 LOCAL_MEDIA_{i,j} + \beta_2 NATIONAL_BRANCH_{i,j} + \sum \beta_k CONTROL_k + \lambda_i + \theta_i + \epsilon_{i,j}, \quad (4.3)$$

I test the report informativeness of national media with a local branch with the following model:

$$\Delta MARKET_{i,j} = \alpha_0 + \beta_1 LOCAL_MEDIA_{i,j} + \beta_2 NATIONAL_BRANCH_{i,j} + \sum \beta_k CONTROL_k + \lambda_i + \theta_i + \epsilon_{i,j}, \quad (4.4)$$

where *NATIONAL_BRANCH* is the variable of interest. Following past literature (Gurun and Butler, 2012), I define national media as having a local branch if the branch is within 100 miles from the covered firm's major facility, and zero otherwise.² I control for firm- and report- specific characteristics as previously described. These two specifications also include industry and year fixed effects and I cluster standard errors at the industry level. If national media with a local branch differ from national media without a local branch, I will find β_2 to be significantly non-zero. I have no prediction for whether β_2 would be significant or the signs of β_2 in either equation.

I present the results of estimating equation (4.3) in Table 9. Results in Panel A and Panel B show that β_2 is significant in three out of four report characteristics. National media with a local

²I follow Gurun and Butler (2012) and use their standard of 100 miles to determine if the branch is close to the covered firm or not. My measure differ from their measure in that they measure the distance between media and firm headquarter, while I include the firm's major facilities in measuring distance between national media's branches and the firm.

branch issue fewer negative reports, have less executive-related content and have more quotation-related content. This suggests that national media with a local branch function more like local media in some respects. Combined with findings in Table 4.2, Column (4), the results suggest that although local and national media reports do not differ in quotation-related content on average, reports from national media with a local branch contain more quotation-related topics and are significantly different from reports issued by national media without a local branch association. This indicates that when national media are close to the covered firm, they utilize the physical proximity to collect local firm-specific information, similar to the local media. I see it as evidence that changes in physical proximity alter the information collection of national media with a local branch and to some extent mitigate the comparative advantages of local media.

I then test whether financial markets react differently to reports issued by national media with a local branch. I present the results of estimating equation (4.4) in Table 4.6. Consistent with my previous findings, I document (1) significantly negative coefficients on *LOCAL_MEDIA* in most specifications, and (2) the negative coefficients on *LOCAL_MEDIA* are greater in the high originality sub-sample. When it comes to report informativeness of reports issued by national media with a local branch, I find β_2 to be non-significant in all the specifications, indicating that financial markets do not consider reports issued by national media with a local branch to differ in informativeness from reports issued by national media without a local branch. Local reports remain informative regardless of national media's local connection.

Collectively, results in Table 4.5 and Table 4.6 indicate that national media with a local branch utilize their physical proximity to the covered firm and function more like local media in some report characteristics. However, these changes in the report content are not informative to financial markets.

4.3.2 Media's Detection of Fraud before SEC Announcements

One potential concern with this study is that the content and informativeness of media reports may be correlated with their ability to detect corporate misconduct prior to SEC announcements.

Previous research has shown that media outlets often serve as watchdogs, detecting accounting fraud and other types of misconduct (Miller (2006)) and local media play an important role in monitoring local firms (Heese et al. (2021); Kim et al. (2021)).

It is possible that a group of local media outlets may detect and report on corporate misconduct before it is announced by the SEC. When the fraud is eventually announced, these media outlets continue to cover the story, potentially bringing additional information and perspectives to the table. As a result, these media outlets may produce reports that are significantly different from those of other media outlets. This could be due to their access to additional information or simply to their different reporting functions. If this is the case, then any differences in report content and informativeness between national and local media outlets may not be due to differences in their information-generating processes, but rather to their role, especially local media's role, as watchdogs and their ability to detect corporate misconduct.

To rule out the possibility that the differences in report content and informativeness are due to the media's detection of corporate misconduct, I limited my sample to reports covering frauds that were not detected by the media before SEC announcements. I then re-ran all of the main analyses and conducted additional tests. The untabulated results of these tests showed that my findings were robust in the non-detection sub-sample. This suggests that the differences in report content and informativeness between national and local media outlets are more likely to be the result of differences in their information-generating processes rather than their ability to detect corporate misconduct.

Taken together, these findings provide strong evidence to support my original hypothesis that national and local media outlets differ in their information-generating processes, and that these differences have significant implications for the content and quality of their reportings on corporate fraud.

4.3.3 Alternative Measures of Report Content and Report Informativeness

To further test the robustness of my results, I explored alternative measures for report content and report informativeness. Specifically, I followed Loughran and McDonald (2011) and weighted negative words, litigious words, executive-related words, and quotation-related words using the term frequency-inverse document frequency weighting method. I then re-ran my tests using equations (4.1) and (4.3).

Additionally, for report informativeness, I measured market outcome variables in the (0,+4) window after the report date and re-ran my analyses using equations (4.2) and (4.4).

I found that my results were robust to all of these alternative measures. This provides further support for the robustness of my original findings and suggests that the differences in report content and informativeness between national and local media outlets are not driven by the specific measures used in my analysis.

4.4 Supplementary Discussion

4.4.1 Media's Reporting Incentive

In general, media function as profit maximizing entities just like firms do. Theoretically, media choose their optimal resources allocation to generate the most profits (Gentzkow and Shapiro (2010); Gentzkow et al. (2014)), which involves the costs and revenues to produce news reports. A media outlet's revenue function consists of two parts, advertising revenues and subscription revenues.³ A media outlet's cost function consists of resources allocated to produce news reports. The resources may include number of reporters who write about the specific news event, capacity of reporters, space devoted to the news, time and/or effort spent by reporters to integrate and analyze the event, etc. In the long term, media make strategic choice on their target audience and

³The two types of revenues are highly correlated. Theory on media often model advertising revenues as a function of the number of subscriptions. See, among others, Gentzkow et al. (2014).

differentiate themselves in market competition.⁴ In the short term, since media already commit to their respective reporting strategies and target audiences, they determine whether and how to cover an event in order to realize the optimal production level.

Local media and national media differ in their costs and revenues. First, on the cost side, media devote resources to an event in order to generate raw information. Because local media are located in an area close to the covered firms, they face a different cost function from national media do. Local media have better access to information if the covered firms are in or near the circulation area. In other words, when both national media and local media devoted the same amount of resources to the event, local media generate more raw information than national media do.

Second, on the revenue side, media use the raw information collected to produce news reports that appeal to their readers. Media's short-term "revenue" from reporting on an event is an increasing function of the raw information they collected and the amount of target audience that the reports appeal to. Because local media have a more concentrated circulation area close to the covered firms, news reports about the firms may interest local media's audience more than they interest national media's audience. In other words, given the that media have incurred some costs to collect the same level of raw information, local media would have a higher "revenue" than national media do when covering the local firms.

Third, while local media optimize production decision with regard to its local community, national media optimize overall production decision across different regions.⁵ Since the costs and revenues of reporting on local corporate events differ for local and national media, it is plausible that local media cover local corporate events differently from national media do.

⁴The media may strategically choose to cater to certain type of target audience, or change their target audience and reporting strategy in the long run. For example, George and Waldfogel (2006) show that local newspaper change their strategy to cater to local oriented target audience and focus on local topics in response to the expansion of national media such as The New York Times. Iyengar et al. (2002) document that media cater to the target audiences' educational levels and cover the same political election news differently.

⁵Without loss of generality, I assume that the marginal profit of reporting on an event decreases in the resources allocated to that event. Under this framework, the optimal production decision for local media is to choose the amount of resources such that the marginal costs and marginal revenues of reporting on an event equal. The optimal production decision for national media is to choose a resources allocation plan across different regions such that the marginal profits of different regions equal.

4.4.2 Frauds vs. Other Corporate Events

This study focuses on the setting of financial frauds as the setting to study media heterogeneity and information diversity. While corporate misconducts and financial frauds are critical firm events, it might be argued that the setting is too narrow to study media heterogeneity, or that the findings of this study can not be generalized to other firm events. Here I explain why financial frauds are the most suitable corporate events for my research questions.

To begin with, the objective of this paper is to investigate media heterogeneity, and therefore, the most crucial factor in selecting an ideal setting is to identify a type of event that amplifies any differences in media reporting. For this reason, an ideal corporate event would have two primary characteristics: high visibility and high uncertainty. Both characteristics are necessary from research design perspective.

The events must be highly visible to attract a wide range of media coverage, including both national and local media. High-visibility events such as the earnings announcements of large firms fall into this category. However, earnings announcements may not always be the ideal events. For example, earnings announcements of mid- or small- capitalization firms may not attract coverage of national media. Moreover, even earnings announcements of certain big firms would have low coverage during the time period when most firms herd their annual earnings announcements. It is critical to have both national and local media involved in coverage to assess any differences in their reporting.

The events need to be highly uncertain so that reports have incentives to provide more content for their readers. For instance, events with uncertain consequences or complex natures are associated with a variety of editorial content, while factual news events are connected with repeated reports covering identical content. By choosing a setting such as financial frauds, where the outcome is unknown and often complex, this allows for a broader range of reporting, which is important for the analysis of media heterogeneity.

In other words, if a more common setting like earnings announcements were used to study media heterogeneity, it would be necessary to filter out low visibility and low uncertainty events.

Given the nature of the research question, financial frauds provide a suitable setting that captures differences in media reporting. Financial frauds are significant events that can cause a massive impact on firms, investors, and the public. It is, therefore, a suitable event to study in examining media diversity and heterogeneity.

4.4.3 Comparison with Previous Findings

One interesting finding of this paper is that in the case of financial frauds, local media reports are significantly more negative in sentiments than national media reports. This empirical finding appears to contradict the main finding in Gurun and Butler (2012). In this section, I provide several explanations to reconcile this apparent contradiction.

Gurun and Butler (2012) find that local media reports are less negative or more positive about local firms. And they attribute this difference in sentiments to local media's advertising income concern. Their research examines general reports covering all firm events collected from eight influential regional media and compare them to the general reports from national media.

I argue that media's information generating process is characterized by nature of the events, media's income concern, reporter incentives, and reader preferences. While Gurun and Butler (2012) and this paper have distinct findings about local media's sentiments, they are resulted from the media's information generating process affected by different factors. In the case of the empirical findings of this paper, one feature that distinguishes my finding from that of Gurun and Butler (2012) is the choice of setting. While it is true that advertising income concern is the main force that drives the local media to align with local firms in general, other incentives probably have stronger impact on the media's information generating process when it comes to extreme events like financial frauds.

First, one factor that comes into play in a negative firm event is the reporter's individual career concern. Previous research has documented that reporters benefit from have sensational stories that appeal to a broad readership. Financial frauds of local firm fit well into the type of news event that could potentially benefit individual reporters the most. In such cases, the advertising

incentive may be overridden by reporter's career incentive.

Second, while readers may not mind the media's positive slant about local firms in general situations, they could possibly have different preferences when it comes to negative events. As discussed early in this paper, readers as employees of local firms are the most common sources of whistle blowers. There could be a supply of negative information from or demanded by the readers that shapes the sentiments of the reports.

With individual reporter's career concern and local negative information sources playing a crucial role in the setting of financial frauds, this paper finds that factors other than advertising income concern become the main forces that drive the more negative sentiments in local media reports.

Table 4.1: Report Content

This table lists the OLS regression results of estimating the differences in report content between local and national media. The unit of observation is news report. The independent variable, LOCAL_MEDIA, is an indicator equals to one if the report is from a regional media outlet that is close to the covered firm, and zero otherwise. The dependent variable in Column (1), NEGATIVITY, is the ratio of negative words in a report. The dependent variables in Column (2), LITIGATION, is the ratio of litigious words in a report. The dependent variable in Column (3), EXECUTIVE, is the ratio of executive-related words in a report. The dependent variable in Column (4), QUOTATION, is the ratio of quotation-related words in a report. All variable definitions can be found in Appendix A. The standard errors are reported in parentheses and clustered at industry level. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively. All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

| VARIABLES | (1) NEGATIVITY | (2) LITIGATION | (3) EXECUTIVE | (4) QUOTATION |
|-------------------|--------------------------|---------------------------|---------------------------|-------------------------|
| LOCAL_MEDIA | 0.0137*** (0.00158) | 0.0122*** (0.00109) | -0.00148*** (0.000384) | 0.000171 (0.000371) |
| LN_AT | 0.000911 (0.000685) | 0.00159** (0.000689) | -0.000127 (0.000270) | -1.89e-05 (0.000156) |
| ROA | -0.0162** (0.00596) | -0.00906 (0.0106) | -0.00795** (0.00324) | -0.00197 (0.00293) |
| BOOK_LEV | 0.00614 (0.00371) | 0.00711** (0.00290) | -0.00528** (0.00240) | -0.00340** (0.00128) |
| BTM | 0.000122 (0.000243) | -0.000223 (0.000191) | 0.000104 (0.000103) | 0.000162 (0.000107) |
| CAP | -0.0174 (0.0126) | 0.0338** (0.0130) | -0.00293 (0.00476) | -0.00258 (0.00389) |
| EMP | -3.83e-06 (0.000570) | 0.000587 (0.000452) | -0.000369 (0.000305) | -0.000139 (0.000421) |
| MVE | 1.82e-08 (1.97e-08) | -8.26e-09 (9.64e-09) | 9.21e-09** (4.13e-09) | -2.16e-09 (4.89e-09) |
| IDIO_RISK | 0.00882* (0.00475) | -0.000566 (0.00369) | -0.00254 (0.00314) | -0.000478 (0.00163) |
| N_FOLLOW | -0.000139* (7.33e-05) | -9.36e-05 (7.56e-05) | -2.29e-05 (3.68e-05) | 2.92e-05* (1.59e-05) |
| N_SEGMENT | -0.000403 (0.000264) | -0.000265** (0.000118) | -2.32e-05 (0.000128) | 2.84e-05 (8.44e-05) |
| INSTITUTIONAL_OWN | -0.00167 (0.00140) | -0.00141 (0.00125) | -0.000741 (0.000606) | -0.000553 (0.000406) |
| TQ | 0.00192* (0.00106) | 0.00192 (0.00124) | 0.000972** (0.000461) | 0.000484* (0.000248) |
| XAD | 0.0428* (0.0222) | 0.0540*** (0.0195) | -0.0250* (0.0130) | -0.00310 (0.00750) |
| XRD | -0.00686 (0.0166) | -0.00611 (0.0128) | -0.00764 (0.00951) | 0.00206 (0.00723) |

Table 4.1: Report Content (Cont'd)

| VARIABLES | (1) NEGATIVITY | (2) LITIGATION | (3) EXECUTIVE | (4) QUOTATION |
|---------------------|----------------------------|----------------------------|----------------------------|---------------------------|
| SALE | -1.16e-07*** (1.90e-08) | -8.96e-08*** (1.67e-08) | -8.66e-09 (5.94e-09) | 2.32e-09 (4.71e-09) |
| SALE_GRTH | 0.000837 (0.00216) | 0.000482 (0.00243) | 0.000924 (0.00105) | 0.000198 (0.000631) |
| LENGTH | -0.00654*** (0.000207) | -0.00188*** (0.000326) | -0.000884*** (0.000145) | -0.00138*** (0.000103) |
| Constant | 0.0690*** (0.00870) | 0.00689 (0.00690) | 0.0170*** (0.00345) | 0.0173*** (0.00143) |
| Observations | 4,290 | 4,290 | 4,290 | 4,290 |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Adj. R ² | 0.526 | 0.257 | 0.231 | 0.390 |

Table 4.2: Report Content and Originality

This table lists the OLS regression results of estimating the differences in report content between local and national media by report originality group. Panel A lists the results of comparing report content between local and national media in the sub-sample of high originality reports. Panel B lists the results of comparing report content between local and national media in the sub-sample of low originality reports. The unit of observation is news report. In both panels, the independent variable, LOCAL_MEDIA, is an indicator equals to one if the report is from a regional media outlet that is close to the covered firm, and zero otherwise. The dependent variable in Column (1), NEGATIVITY, is the ratio of negative words in a report. The dependent variables in Column (2), LITIGATION, is the ratio of litigious words in a report. The dependent variable in Column (3), EXECUTIVE, is the ratio of executive-related words in a report. The dependent variable in Column (4), QUOTATION, is the ratio of quotation-related words in a report. The “Diff in Coefficients” row in Panel B lists the comparisons of coefficients on LOCAL_MEDIA between the high originality sub-sample and the low originality sub-sample. All variable definitions can be found in Appendix A. The standard errors are reported in parentheses and clustered at industry level. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively. All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

Panel A: High Originality Reports Sub-sample

| VARIABLES | (1) NEGATIVITY | (2) LITIGATION | (3) EXECUTIVE | (4) QUOTATION |
|-----------------------|------------------------|------------------------|--------------------------|------------------------|
| LOCAL_MEDIA | 0.0147*** (0.00131) | 0.0147*** (0.00119) | -0.00198** (0.000813) | 0.000206 (0.000366) |
| Diff in Coefficients: | | | | |
| High Ori. – Low Ori. | 0.002 | 0.00686*** | -0.00077 | -0.000091 |
| Observations | 2,305 | 2,305 | 2,305 | 2,305 |
| Controls | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Adj. R ² | 0.507 | 0.275 | 0.291 | 0.365 |

Panel B: Low Originality Reports Sub-sample

| VARIABLES | (1) NEGATIVITY | (2) LITIGATION | (3) EXECUTIVE | (4) QUOTATION |
|---------------------|------------------------|-------------------------|--------------------------|------------------------|
| LOCAL_MEDIA | 0.0127*** (0.00245) | 0.00784*** (0.00215) | -0.00121** (0.000446) | 0.000297 (0.000546) |
| Observations | 1,985 | 1,985 | 1,985 | 1,985 |
| Controls | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Adj. R ² | 0.563 | 0.282 | 0.205 | 0.432 |

Table 4.3: Report Informativeness

This table reports the OLS regression results of estimating whether the market reacts differently to news reports from local and national media. Panel A lists the results in the whole sample. Panel B lists the results in the sub-sample of high originality reports. Panel C lists the results in the sub-sample of low originality reports. The unit of observation is news report. In all panels, the independent variable, LOCAL_MEDIA, is an indicator equals to one if the report is from a regional media outlet that is close to the covered firm, and zero otherwise. The dependent variable in Column (1), Δ BA_SPREAD, is the change of bid-ask spread in the (0, +2) window following the report date. The dependent variable in Column (2), ABN_VOLATILITY, is the market-adjusted abnormal stock return volatility in the (0, +2) window following the report date. The dependent variable in Column (3), Δ IV_OPTION, is the change of implied volatility of stock options in the (0, +2) window following the report date. The “Diff in Coefficients” row in Panel B lists the comparisons of coefficients on LOCAL_MEDIA between the high originality sub-sample and the low originality sub-sample. All variable definitions can be found in Appendix A. The standard errors are reported in parentheses and clustered at industry level. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively. All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

Panel A: Whole Sample

| VARIABLES | (1) Δ BA_SPREAD | (2) ABN_VOLATILITY | (3) Δ IV_OPTION |
|---------------------|----------------------------|-----------------------|---------------------------|
| LOCAL_MEDIA | -0.000671*** (0.000210) | -0.209*** (0.0488) | -0.00377** (0.00180) |
| Observations | 4,290 | 4,290 | 3,759 |
| Controls | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Adj. R ² | 0.045 | 0.211 | 0.113 |

Panel B: High Originality Reports Sub-sample

| VARIABLES | (1) Δ BA_SPREAD | (2) ABN_VOLATILITY | (3) Δ IV_OPTION |
|---|---------------------------|-----------------------|---------------------------|
| LOCAL_MEDIA | -0.00107** (0.000428) | -0.251*** (0.0879) | -0.00337 (0.00370) |
| Diff in Coefficients: High Ori. – Low Ori. | -0.0007* | -0.098** | -0.0005 |
| Observations | 2,305 | 2,305 | 1,831 |
| Controls | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Adj. R ² | 0.022 | 0.206 | 0.075 |

Table 4.3: Report Informativeness (Cont'd)

Panel C: Low Originality Reports Sub-sample

| VARIABLES | (1) Δ BA_SPREAD | (2) ABN_VOLATILITY | (3) Δ IV_OPTION |
|---------------------|---------------------------|-----------------------|---------------------------|
| LOCAL_MEDIA | -0.000377* (0.000195) | -0.153 (0.104) | -0.00288 (0.00288) |
| Observations | 1,985 | 1,985 | 1,928 |
| Controls | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Adj. R ² | 0.195 | 0.259 | 0.229 |

Table 4.4: Firm Geographic Dispersion and Report Informativeness Difference

This table reports the regression results of how the covered firm's geographic dispersion affects whether the market reacts differently to news reports from local and national media. Panel A lists the results in the whole sample. Panel B lists the results in the sub-sample of high originality reports. Panel C lists the results in the sub-sample of low originality reports. The unit of observation is news report. In all panels, the independent variable, LOCAL_MEDIA, is an indicator equals to one if the report is from a regional media outlet that is close to the covered firm, and zero otherwise. The dependent variable in Column (1) and (2), ΔBA_SPREAD, is the change of bid-ask spread in the (0, +2) window following the report date. The dependent variable in Column (3) and (4), ABN_VOLATILITY, is the market-adjusted abnormal stock return volatility in the (0, +2) window following the report date. The dependent variable in Column (5) and (6), ΔIV_OPTION, is the change of implied volatility of stock options in the (0, +2) window following the report date. In all panels, each sample is split based on whether the geographic dispersion of the covered firm is above or below the sample median. The "Diff in Coefficients" rows reports the comparisons of coefficients on LOCAL_MEDIA between the reports covering high geographic dispersion firms and the reports covering low geographic dispersion firms. All variable definitions can be found in Appendix A. The standard errors are reported in parentheses and clustered at industry level. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively. All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

| | | (1) | (2) | (3) | (4) | (5) | (6) |
|----------------------|--|----------------------------|---------------------------|---------------------|-----------------------|-----------------------|--------------------------|
| | | High Geo_Disp | Low Geo_Disp | High Geo_Disp | Low Geo_Disp | High Geo_Disp | Low Geo_Disp |
| VARIABLES | | ΔBA_SPREAD | | ABN_VOLATILITY | | ΔIV_OPTION | |
| LOCAL_MEDIA | | -0.000579*** (0.000203) | -0.000598** (0.000263) | -0.167* (0.0958) | -0.254*** (0.0535) | -0.00287 (0.00319) | -0.00476*** (0.00144) |
| Diff in Coefficients | | | | (3) - (4) * | | (5) - (6) * | |
| Geo_Disp: High – Low | | (1) - (2) | | | | | |
| Observations | | 2,123 | 2,167 | 2,123 | 2,167 | 1,799 | 1,960 |
| Controls | | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry FE | | Yes | Yes | Yes | Yes | Yes | Yes |
| Adj. R ² | | 0.130 | 0.045 | 0.185 | 0.328 | 0.151 | 0.128 |

Table 4.4: Firm Geographic Dispersion and Report Informativeness Difference (Cont'd)

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|-------------------------|-------------------------|-------------------|-----------------------|-----------------------|-------------------------|
| Panel B: High Originality Reports Sub-sample | | | | | | |
| VARIABLES | | | | | | |
| High Geo_Disp | | Low Geo_Disp | High Geo_Disp | Low Geo_Disp | High Geo_Disp | Low Geo_Disp |
| Δ BA_SPREAD | | | ABN_VOLATILITY | | Δ IV_OPTION | |
| LOCAL_MEDIA | -0.000254 (0.000280) | -0.000402 (0.000396) | -0.121 (0.178) | -0.340*** (0.0766) | -0.00123 (0.00553) | -0.00516** (0.00241) |
| Diff in Coefficients | | | | | | |
| Geo_Disp: High – Low | | (1) - (2) | (3) - (4) ** | | (5) - (6) | ** |
| Observations | 1,140 | 1,165 | 1,140 | 1,165 | 809 | 1,022 |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Adj. R ² | 0.043 | 0.053 | 0.186 | 0.325 | 0.104 | 0.110 |
| Panel C: Low Originality Reports Sub-sample | | | | | | |
| VARIABLES | | | | | | |
| High Geo_Disp | | Low Geo_Disp | High Geo_Disp | Low Geo_Disp | High Geo_Disp | Low Geo_Disp |
| Δ BA_SPREAD | | | ABN_VOLATILITY | | Δ IV_OPTION | |
| LOCAL_MEDIA | -0.000568 (0.000374) | -0.000951 (0.000749) | -0.297 (0.205) | -0.0743 (0.105) | -0.00459 (0.00610) | -0.00183 (0.00266) |
| Diff in Coefficients: | | | | | | |
| Geo_Disp: High – Low | | (1) - (2) | (3) - (4) | | (5) - (6) | |
| Observations | 983 | 1,003 | 983 | 1,003 | 990 | 938 |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Adj. R ² | 0.431 | 0.126 | 0.256 | 0.388 | 0.307 | 0.255 |

Table 4.5: National Media with Local Branch - Report Content

This table lists the OLS regression results of estimating whether national media with a local branch differ from local media or national media without a local branch in report content. The unit of observation is news report. Panel A lists the results in the whole sample. Panel B lists the results in the sub-sample of high originality reports. Panel C lists the results in the sub-sample of low originality reports. The independent variable, NATIONAL_BRANCH, is an indicator equals to one if the report is from a national media outlet that has at least one branch close to the covered firm, and zero otherwise. The dependent variable in Column (1), NEGATIVITY, is the ratio of negative words in a report. The dependent variables in Column (2), LITIGATION, is the ratio of litigious words in a report. The dependent variable in Column (3), EXECUTIVE, is the ratio of executive-related words in a report. The dependent variable in Column (4), QUOTATION, is the ratio of quotation-related words in a report. All variable definitions can be found in Appendix A. The standard errors are reported in parentheses and clustered at industry level. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively. All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

Panel A: Whole Sample

| VARIABLES | (1) NEGATIVITY | (2) LITIGATION | (3) EXECUTIVE | (4) QUOTATION |
|---------------------|-------------------------|------------------------|---------------------------|--------------------------|
| LOCAL_MEDIA | 0.0128*** (0.00138) | 0.0124*** (0.00113) | -0.00193*** (0.000421) | 0.000763 (0.000469) |
| NATIONAL_BRANCH | -0.00239** (0.00108) | 0.000547 (0.00114) | -0.00115*** (0.000224) | 0.00153*** (0.000348) |
| Observations | 4,290 | 4,290 | 4,290 | 4,290 |
| Controls | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Adj. R ² | 0.528 | 0.257 | 0.235 | 0.403 |

Panel B: High Originality Reports Sub-sample

| VARIABLES | (1) NEGATIVITY | (2) LITIGATION | (3) EXECUTIVE | (4) QUOTATION |
|---------------------|--------------------------|------------------------|---------------------------|--------------------------|
| LOCAL_MEDIA | 0.0139*** (0.00143) | 0.0145*** (0.00133) | -0.00265*** (0.000765) | 0.000611 (0.000459) |
| NATIONAL_BRANCH | -0.00256** (0.000989) | -0.000520 (0.00186) | -0.00152*** (0.000320) | 0.00118*** (0.000348) |
| Observations | 2,305 | 2,305 | 2,305 | 2,305 |
| Controls | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Adj. R ² | 0.509 | 0.275 | 0.207 | 0.373 |

Table 4.5: National Media with Local Branch - Report Content (Cont'd)

Panel C: Low Originality Reports Sub-sample

| VARIABLES | (1) NEGATIVITY | (2) LITIGATION | (3) EXECUTIVE | (4) QUOTATION |
|---------------------|------------------------|-------------------------|---------------------------|--------------------------|
| LOCAL_MEDIA | 0.0117*** (0.00189) | 0.00840*** (0.00187) | -0.00151*** (0.000505) | 0.00103 (0.000634) |
| NATIONAL_BRANCH | -0.00231 (0.00156) | 0.00126 (0.00118) | -0.000855** (0.000344) | 0.00166*** (0.000362) |
| Observations | 1,985 | 1,985 | 1,985 | 1,985 |
| Controls | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Adj. R ² | 0.565 | 0.283 | 0.297 | 0.445 |

Table 4.6: National Media with Local Branches - Report Informativeness

This table lists the OLS regression results of estimating whether national media with a local branch differ from local media or national media without a local branch in market impacts. The unit of observation is news report. Panel A lists the results in the whole sample. Panel B lists the results in the sub-sample of high originality reports. Panel C lists the results in the sub-sample of low originality reports. The independent variable, NATIONAL_BRANCH, is an indicator equals to one if the report is from a national media outlet that has at least one branch close to the covered firm, and zero otherwise. The dependent variable in Column (1), Δ BA_SPREAD, is the change of bid-ask spread in the (0, +2) window following the report date. The dependent variable in Column (2), ABN_VOLATILITY, is the market-adjusted abnormal stock return volatility in the (0, +2) window following the report date. The dependent variable in Column (3), Δ IV_OPTION, is the change of implied volatility of stock options in the (0, +2) window following the report date. All variable definitions can be found in Appendix A. The standard errors are reported in parentheses and clustered at industry level. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively. All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

Panel A: Whole Sample

| VARIABLES | (1) Δ BA_SPREAD | (2) ABN_VOLATILITY | (3) Δ IV_OPTION |
|---------------------|----------------------------|-----------------------|---------------------------|
| LOCAL_MEDIA | -0.000724*** (0.000190) | -0.217** (0.0836) | -0.00503* (0.00259) |
| NATIONAL_BRANCH | -0.000133 (0.000253) | -0.0196 (0.121) | -0.00302 (0.00268) |
| Observations | 4,290 | 4,290 | 3,759 |
| Controls | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Adj. R ² | 0.045 | 0.211 | 0.114 |

Panel B: High Originality Reports Sub-sample

| VARIABLES | (1) Δ BA_SPREAD | (2) ABN_VOLATILITY | (3) Δ IV_OPTION |
|---------------------|---------------------------|-----------------------|---------------------------|
| LOCAL_MEDIA | -0.00105** (0.000449) | -0.244 (0.149) | -0.00373 (0.00429) |
| NATIONAL_BRANCH | 3.04e-05 (0.000278) | 0.0201 (0.190) | -0.000962 (0.00263) |
| Observations | 1,985 | 1,985 | 1,831 |
| Controls | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Adj. R ² | 0.195 | 0.206 | 0.075 |

Table 4.6: National Media with Local Branches - Report Informativeness (Cont'd)

Panel C: Low Originality Reports Sub-sample

| VARIABLES | (1) Δ BA_SPREAD | (2) ABN_VOLATILITY | (3) Δ IV_OPTION |
|---------------------|---------------------------|-----------------------|---------------------------|
| LOCAL_MEDIA | -0.000461** (0.000187) | -0.175 (0.107) | -0.00526 (0.00371) |
| NATIONAL_BRANCH | -0.000236 (0.000233) | -0.0481 (0.125) | -0.00491 (0.00444) |
| Observations | 2,305 | 2,305 | 1,928 |
| Controls | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Adj. R ² | 0.023 | 0.259 | 0.231 |

CHAPTER 5

Conclusion

In this study, I examine how local media differ from national media in the dissemination and interpretation of corporate fraud. Using a local firm's AAER announcements as a setting, I investigate the reporting behaviors, examine the report content, and compare the report informativeness of local and national coverage. I find that, as measured by textual dissimilarity to existing national and local media content, local reporting is more original than national reporting. Specifically, local reports are more negative, put more emphasis on litigation topics, and less on executive-related topics. The differences in report content are meaningful to investors. Measuring information asymmetry using changes in bid-ask spread, and measuring market uncertainty using implied volatility of stock options and abnormal stock return volatility, I find that local media reports are more effective in reducing information asymmetry and resolving market uncertainty. Furthermore, the differences in market reactions are stronger among high originality reports and weaker among low originality reports.

I then examine a mechanism that affects the relative effectiveness of local and national coverage. In particular, I investigate how a firm's geographic dispersion influences previously documented differences in report informativeness. I predict and find the results that local reports reduce information asymmetry and resolve market uncertainty are weaker (stronger) when the covered firm is more (less) geographically dispersed. I perform several additional tests, all of them reinforce my main findings, namely that local media are informative to investors about corporate frauds.

This paper contributes to the literature on media by focusing on differentiating local media

from national media. My study provides one of the first evidence comparig local and national coverage, adding to our understanding of the full spectrum of different types of media. It contributes to the nascent literature on local media by investigating the role of local media in the ex post interpretation role. Finally, this study contribute to literature on the media's role in financial frauds by studying the equally important and more common ex post interpretation role of media coverage.

APPENDIX A

Variable Definition

Table A.1: Variable Definition

All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

| VARIABLE | DEFINITION | SOURCE |
|-----------------------------|--|---|
| Dependent Variables | | |
| NEGATIVITY | Number of negative words divided by total number of words in a news report. | Factiva |
| LITIGATION | Number of litigious words divided by number of total words in a news report. | Factiva |
| QUOTATION | Number of quotation-related words divided by total number of words in a news report. See Appendix B for a detailed explanation of quotation-related words. | Factiva |
| EXECUTIVE | Number of executive-related words divided by total number of words in a news report. See Appendix B for a detailed explanation of executive-related words. | Factiva |
| Δ BA.SPREAD | The short-term change in bid-ask spread after the news report date, calculated as the 3-day sum of daily bid-ask spread scaled by the daily closing price after the report date minus 3-day average bid-ask spread prior to the report date. | CRSP |
| Δ IV.OPTION | The short-term change in daily implied volatility of stock options, calculated as the 3-day sum of daily implied volatility of stock option after the report date minus 3-day average implied volatility of stock option prior to the report date. | OptionMetrics Standardized Option |
| ABN.VOLATILITY | The short-term abnormal stock return volatility, calculated as the 3-day standard deviation of market-adjusted abnormal stock return after the report date. | CRSP |
| Independent Variable | | |
| LOCAL.MEDIA | An indicator variable equals to one if the media issuing the report is a regional media and is close to the covered firm in the event, and zero otherwise. | Hand Collection |
| Control Variables | | |
| LN.AT | The natural logarithm of one plus the firm's year-end total assets. | Compustat |
| ROA | Return on assets of the covered firm. | Compustat |
| BOOK.LEV | Book leverage ratio of the covered firm. | Compustat |
| CAPX | Capital expenditures of the covered firm scaled by total assets. | Compustat |

Table A.1: Variable Definition (Cont'd)

All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

| VARIABLE | DEFINITION | SOURCE |
|-----------------------------------|---|-----------------|
| Control Variables (Cont'd) | | |
| BTM | Book to market ratio, calculated as Compustat <i>ceq</i> divided by market value. If <i>ceq</i> is missing, then use Compustat <i>at</i> less <i>lt</i> . | Compustat |
| EMP | The natural logarithm of one plus the firm's total number of employees. | Compustat |
| MVE | The natural logarithm of one plus the firm's fiscal-year-end market value in millions. The market value is calculated as Compustat <i>csho</i> \times <i>prcc</i> . If missing Compustat variables, set to CRSP <i>abs(prc)</i> \times <i>shrout</i> /1000. | Compustat, CRSP |
| IDIO_RISK | The idiosyncratic risk of the firm's stock, calculated as the standard deviation of the firm's monthly stock return in the past two years. | CRSP |
| N_FOLLOW | Number of analysts following, calculated as the number of analysts issuing yearly EPS forecasts for the firm. | IBES |
| N_SEGMENT | Number of business segments of the firm. | Compustat |
| INST_OWN | Fraction of shares held by institutional investors, calculated at the most recent file date between 100 days before the SEC announcement date and the SEC announcement date. | Thomson |
| TQ | Tobin's Q of the firm. | Compustat |
| XAD | Advertising expenditures of the covered firm, calculated as total advertising expenses scaled by total assets. | Compustat |
| XRD | R&D expenditures of the covered firm, calculated as R&D expenses scaled by total assets. | Compustat |
| SALE | Total sales scaled by total assets. | Compustat |
| SALE_GRTH | Sales growth of the covered firm in the past year. | Compustat |
| LENGTH | Length of the report, calculated as the natural logarithm of one plus the total number of words in the report. | Factiva |
| Other Variables | | |
| ORIGINALITY | The originality score of a report, see Appendix C for a detailed calculation of this variable. | Factiva |
| HIGH_ORIGIN | An indicator variable equals to one if ORIGINALITY of the report is above the sample median, and zero otherwise. | Factiva |

Table A.1: Variable Definition (Cont'd)

All continuous, non-logarithmic variables are winsorized at the 1% and 99% levels.

| VARIABLE | DEFINITION | SOURCE |
|---------------------------------|---|-----------------|
| Other Variables (Cont'd) | | |
| GEO_DISP | Firm's geographic dispersion, defined as the total number of states mentioned in a firm's Business Section (Item 1) and Management Discussion and Analysis (Item 7) of the 10-Ks. | EDGAR |
| HIGH_DISP | An indicator variable equals to one if GEO_DISP of the covered firm is above the sample median, and zero otherwise. | EDGAR |
| NATIONAL_BRANCH | An indicator variable equals to one if the media issuing the report is a national media and has at least one branch near the covered firm, and zero otherwise. | Hand Collection |

APPENDIX B

Quotation- and Executive- Related Words

I use machine learning algorithms to generate a list of quotation-related words and a list of executive-related words. These lists of words are used to calculate my report content measures. In this part, I explain the methods I use to generate the two lists of words.

I start by manually pick 100 reports that contain quotations and 100 reports without quotations.¹ With the 200 classified reports, I denote the following variables: $W_m, m = 1, 2, 3, \dots$ represent every distinct word in the 200 classified quotation-related and non-quotation-related reports. $\mathbf{W}_Q = \{W_m\}$ is a set of all distinct words contained in the 200 reports. $\mathbf{Q}_x = \{(W_m, M_{q,x})\}$ is the term-frequency vector for the x_{st} report in the 100 quotation-related reports, where $M_{q,x}$ denotes the count of word W_m in the x_{st} quotation-related report. $\mathbf{N}\mathbf{Q}_y = \{(W_m, M_{nq,y})\}$ is the term-frequency vector for the y_{st} report in the 100 non-quotation-related reports, where $M_{nq,y}$ denotes the count of word W_m in the y_{st} non-quotation-related report.

I define a function that captures the difference between quotation-related reports and non-quotation-related reports as follows:

$$D_Q = \sum_m \{(M_{q,x} - M_{nq,y})^2 \times \mathbb{1}(M_{q,x} - M_{nq,y})\} \quad (\text{B.1})$$

where $\mathbb{1}(M_{q,x} - M_{nq,y})$ is an indicator function equals one if $M_{q,x} - M_{nq,y} > 0$ and zero otherwise. The machine learning algorithm's goal can be defined as:

$$\max_{W_k} D_Q \quad (\text{B.2})$$

where k is an arbitrary integer input and W_k is a subset of W_Q that contains k distinct words. In other words, I require the algorithm to do two things: First, it picks a list W_k of k words to maximize the difference function in equation (B.1). Second, because of the indicator function $\mathbb{1}(M_{q,x} - M_{nq,y})$ is positive only if the word it picks appears more in quotation-related reports, this algorithm is more likely to pick words that are unique to the quotation-related reports. The

¹Since I want to capture quotation from sources other than the SEC announcement, I manually pick quotation-related reports that quote non-SEC sources. However, because the words used in quotations are quite common and not unique to non-SEC contexts, the list of quotation-related words still capture quoting SEC announcements or SEC officials.

list W_k is the output of this algorithm, which captures the words that appear more frequently in quotation-related reports that maximize the difference function D_Q . I run the algorithm with a few different inputs of k values and check the term-frequency vector for W_k to make sure my final list of quotation-related words are robust to choice of k value and are intuitive to the setting.² I report the list of quotation-related words at the end of Appendix B.

The list of executive-related words is generated using similar method. I manually pick 100 reports that cover executive-related topics and 100 reports that do not contain executive-related topics. With every distinct word W_c in these 200 classified reports, $\mathbf{W}_E = \{W_c\}, c = 1, 2, 3, \dots$ is a set that contains all distinct word in the 200 executive-related and non-executive-related reports. For the p_{st} report in the 100 executive-related reports, $\mathbf{E}_p = \{(W_c, C_{e,p})\}$ denotes the term-frequency vector, where $C_{e,p}$ is the count of word W_c in the p_{st} report. For the q_{st} report in the 100 non-executive-related reports, $\mathbf{NE}_q = \{(W_c, C_{ne,q})\}$ denotes the term-frequency vector, where $C_{ne,q}$ is the count of word W_c in the q_{st} non-executive-related report.

I define a function that captures the difference between executive-related reports and non-executive-related reports as follows:

$$D_E = \sum_c \{(C_{e,p} - C_{ne,q})^2 \times \mathbb{1}(C_{e,p} - C_{ne,q})\} \quad (\text{B.3})$$

where $\mathbb{1}(C_{e,p} - C_{ne,q})$ is an indicator function equals one if $C_{e,p} - C_{ne,q} > 0$ and zero otherwise.

The machine learning algorithm’s goal can be defined as:

$$\max_{W_g} D_E \quad (\text{B.4})$$

where g is an arbitrary integer input and W_g is a subset of W_E that contains g distinct words. In other words, the algorithm does two things: First, it picks a list W_g of g words to maximize the difference function in equation (B.3). Second, because of the indicator function $\mathbb{1}(C_{e,p} - C_{ne,q})$

²I treat different tense of the same verb as one. For example, "say", "says", and "said" are all captured by the algorithm as highly quotation-related, but they are all recorded as "say" in the list of words. Each "say" "said" and "says" is counted as one time. The same goes for plural forms of nouns. For example, "manager" and "managers" are recorded in the list as "manager", but they will be counted as one time respectively.

is positive only when the word it picks appears more in executive-related reports, this algorithm is more likely to pick words that are unique to the executive-related reports. The list W_g is the output of this algorithm, which captures the words that appear more frequently in executive-related reports and maximize the difference function D_E . Again, I run the algorithm with a few different g values and check the term-frequency vector for W_g to make sure my final list of quotation-related words are robust to choice of g value and are intuitive to the setting.

I list the quotation-related words and executive-related words in Table B.1

Table B.1: List of Quotation-Related Words and Executive-Related Words

List of quotation-related words:

| | | |
|--------|---------|-----------|
| say | tell | mention |
| inform | comment | discuss |
| “ ” | talk | answer |
| ask | insider | notice |
| expert | source | anonymous |

List of executive-related words:

| | | |
|------------|-------|-----------|
| executive | exec | manager |
| management | chief | CEO |
| CFO | board | BOD |
| director | head | leader |
| former | boss | president |
| managerial | chair | founder |

APPENDIX C

The Originality Variable

I use the variable *ORIGINALITY* to determine the originality of reports. This variable is used to capture how different a report is from other prior and concurrent reports.¹ In other words, this variable aims to measure the degree of new content in a report.

I calculate the *ORIGINALITY* variable as follows. I denote the event i in my sample according to their respective SEC announcement dates. I bundle SEC announcement(s) of the same report together and set it as report 0 for all the events in my sample. I code each distinct report j in my sample according to their respective report dates, starting for 1 and code each paragraph in the report according to their order, denoted as n . For the n_{st} paragraph in report j that covers event i , I generate a term-frequency vector for this paragraph, denoted as $\mathbf{P}_{i,j,n}$. $\mathbf{P}_{i,0,n}$ is the term-frequency vector for the SEC announcements. For the m_{st} paragraph in report k covering the same event i , I generate term-frequency vector $\mathbf{P}_{i,k,m}$. Report k is called prior or concurrent to report j if the report date of k is earlier or the same as report j , denoted as $k \leq j$.² In order to see if there is new content in paragraph i, j, n , I need to compare paragraph term-frequency vector $\mathbf{P}_{i,j,n}$ to every paragraph term-frequency vector $\mathbf{P}_{i,k,m}$ given $k \leq j$. I compare the similarity between paragraph i, j, n and all paragraphs in prior or concurrent reports using the cosine similarity measure. To capture how much new content is in paragraph i, j, n , I pick the maximum of all cosine similarities. The level to which $\mathbf{P}_{i,j,n}$ is similar (not different) to all prior or concurrent paragraphs in other reports (from both the same media and different media) is captured by $Copy_P_{i,j,n}$, which is defined as:

$$Copy_P_{i,j,n} = \max_{k \leq j} \text{cossim}(\mathbf{P}_{i,j,n}, \mathbf{P}_{i,k,m}) \quad (\text{C.1})$$

where i denotes the fraud event, j, k denote different reports, and n, m denote the n_{st} paragraph in report j and the m_{st} paragraph in report k . And $\text{cossim}(\mathbf{P}_{i,j,n}, \mathbf{P}_{i,k,m})$ is the cosine similarity

¹When I say “other reports”, I refer to reports issued by all media in the my sample. For example, if the same media issue another report, it will be referred to as one of “other reports” as well.

²In order to include all existing content in the markets when the report issues, I calculate the *ORIGINALITY* variable based on the sample of 5,296 reports instead of my main sample of 4,290 reports. Table 1 offers details of how I select my sample. I make this research choice is to be as comprehensive as possible about existing content when it comes to determine whether there is new content in a report, as compared to other prior and concurrent reports.

score between the two paragraph vectors.

I generate $Copy_P_{i,j,n}$ for every paragraph in report j . I also count the number of words in the n_{st} paragraph in report j , denoted as $Word_Count_{i,j,n}$ and the total number of words in report j , denoted as $Word_Count_{i,j}$. Then I calculate the overall originality of report j by weighting each paragraph by the length. I define the *ORIGINALITY* variable as follows:

$$ORIGINALITY_{i,j} = 1 - \sum_{n=1}^{N_{i,j}} \frac{Word_Count_{i,j,n}}{Word_Count_{i,j}} \times Copy_P_{i,j,n} \quad (C.2)$$

where $N_{i,j}$ is the total number of paragraphs in report j about event i .

By definition, the *ORIGINALITY* variable increases in original content and decreases in similar content to prior and concurrent other reports. I use this variable to divide my sample into a sub-sample of high originality reports and low originality reports.

APPENDIX D

Excepts from SEC Announcements

Here I offer an example of multiple SEC AAER announcements that cover the same fraud event to illustrate the nature of event and SEC's announcements used in the study. The following SEC announcements are about the accounting violation of TALX Corporation and the executives. The announcements are released on March 04, 2005. All SEC announcements are identified by AAER number.

AAER-2199

The U.S. Securities and Exchange Commission (the "Commission") today announced settlement of an enforcement action against TALX Corporation in connection with financial misrepresentations made in TALX's Forms 8-K, 10-K and 10-Q for its fiscal years 2001 through the second quarter of 2004, and in its fiscal 2002 registration statement. TALX is a St. Louis-based provider of employment and income verification and other human resources services.

According to the Commission's complaint filed in the U.S. District Court for the Eastern District of Missouri, during fiscal 2001, and through a secondary offering of common stock completed on August 3, 2001, in which TALX raised approximately \$82 million, TALX placed emphasis on meeting financial projections and highlighted its earnings growth to the market. TALX met its 2001 financial targets and increased its stock price, however, through intentional and unintentional accounting misstatements.

TALX's intentional misstatements involved an improper bill and hold transaction and other premature revenue recognition; capitalizing costs relating to a patent infringement claim that should have been expensed; and expensing executive bonuses in the wrong period. As a result of these intentional misstatements, TALX overstated its fiscal 2001 pre-tax income by approximately \$2.1 million. In addition, TALX used the wrong method of accounting for certain service transactions prior to and in its 2001 fiscal year, and as a result overstated its 2001 pre-tax income by approximately \$2 million. The combined misstatements resulted in TALX overstating its 2001 pre-tax income by approximately 122%, and inflated artificially TALX's 2001 stock price leading

up to its August 3, 2001 secondary offering. Without the combined misstatements, TALX would have received less than the \$82 million realized in the secondary offering.

TALX agreed to settle the Commission's charges by consenting to a cease-and-desist order finding violations of Section 17(a) of the Securities Act of 1933 and Sections 10(b), 13(a), and 13(b)(2) of the Securities Exchange Act of 1934 and Rules 10b-5, 12b-20, 13a-1, 13a-11, and 13a-13 thereunder, and by paying disgorgement of \$1. In the related U.S. District Court action, TALX consented to pay a \$2.5 million penalty. TALX settled without admitting or denying the Commission's substantive findings. The Commission's staff intends to distribute the penalty to injured investors pursuant to the Fair Funds provision of the Sarbanes-Oxley Act of 2002.

AAER-2200

Today, the Securities and Exchange Commission filed a complaint in the U.S. District Court for the Eastern District of Missouri against Craig N. Cohen, the former chief financial officer of TALX Corporation, a St. Louis-based provider of employment and income verification and other human resources services. In its complaint, the Commission alleges that Cohen violated the antifraud and other provisions of the federal securities laws.

According to the complaint, during fiscal 2001, and through a secondary offering of common stock completed on August 3, 2001, TALX placed emphasis on meeting its internal and external financial projections, and highlighted its earnings growth to the market. Cohen caused TALX, however, to meet its 2001 financial targets through fraudulent accounting maneuvers. The misstatements included an improper bill and hold transaction; recognizing revenue prematurely; capitalizing costs relating to a license agreement that should have been expensed; and expensing executive bonuses in the wrong period. As a result, TALX overstated its 2001 pre-tax income by approximately \$2.1 million, or 65%, and inflated TALX's 2001 stock price leading up to the secondary stock offering on August 3, 2001. Cohen sold TALX shares shortly after TALX announced its false fiscal 2001 results. The Commission further alleges that Cohen made misleading statements to TALX's auditors.

The Commission charged Cohen, who is a licensed CPA, with causing TALX to make material financial misrepresentations in Forms 8-K, 10-K and 10-Q for fiscal years 2001 through the second quarter of 2004, and in its fiscal 2002 registration statement, and with violating Section 17(a) of the Securities Act of 1933, Sections 10(b) and 13(b)(5) of the Securities Exchange Act of 1934 and Rules 10b-5, 13b2-1 and 13b2-2 thereunder, and aiding and abetting TALX's violations of Sections 13(a) and 13(b)(2) of the Exchange Act and Rules 12b-20, 13a-1, 13a-11 and 13a-13 thereunder. The Commission is seeking against Cohen a permanent injunction, an officer and director bar, disgorgement (with prejudgment interest), and civil penalties.

AAER-2201

The U.S. Securities and Exchange Commission (the "Commission") today announced settlement of an enforcement action against William W. Canfield, CEO of TALX Corporation. TALX is a St. Louis-based provider of employment and income verification and other human resources services.

According to the Commission's complaint, filed in the U.S. District Court for the Eastern District of Missouri, TALX met its 2001 financial targets through accounting misstatements that inflated falsely TALX's financial performance and its stock price leading up to TALX's August 3, 2001 secondary offering. Canfield sold approximately \$6 million of TALX shares in the offering. The Commission alleged that TALX's misstatements included capitalizing costs relating to a patent infringement claim that should have been expensed, and that Canfield knew or should have known that capitalizing the costs was improper. Further, the Commission alleged that TALX expensed executive bonuses in fiscal 2002 that should have been expensed in fiscal 2001, and that Canfield knew or should have known that the bonuses were expensed in the wrong period. As a result, TALX overstated its fiscal 2001 pre-tax income by \$1.8 million, or 54 percent, and made material financial misrepresentations in Forms 10-K and 10-Q for the years ended March 31, 2001 and 2002, and for the three months ended June 30, 2002, and in TALX's fiscal 2002 registration statement.

Canfield consented to pay a \$100,000 penalty in the civil action filed by the Commission in U.S. District Court. Further, Canfield consented to a related administrative order requiring him to cease and desist from committing or causing any violations and any future violations of Section 17(a) of the Securities Act of 1933 and Securities Exchange Act of 1934 ("Exchange Act") Rule 13b2-1, and from causing any violations and any future violations of Sections 13(a) and 13(b)(2)(A) of the Exchange Act and Rules 12b-20, 13a-1, and 13a-13 thereunder, and to pay disgorgement and prejudgment interest in the total amount of \$859,999. The Commission's staff intends to distribute the penalty and disgorgement to injured investors pursuant to the Fair Funds

provision of the Sarbanes-Oxley Act of 2002. Canfield settled without admitting or denying the Commission's substantive allegations.

ORDER INSTITUTING PROCEEDINGS PURSUANT TO SECTION 8A OF THE SECURITIES ACT OF 1933 AND SECTION 21C OF THE SECURITIES EXCHANGE ACT OF 1934, MAKING FINDINGS, AND IMPOSING A CEASE-AND-DESIST ORDER

I.

The Securities and Exchange Commission (“Commission”) deems it appropriate that public cease-and-desist proceedings be, and hereby are, instituted pursuant to Section 8A of the Securities Act of 1933 (“Securities Act”) and Section 21C of the Securities Exchange Act of 1934 (“Exchange Act”) against TALX Corporation (“Respondent” or “TALX”).

II.

In anticipation of the institution of these proceedings, Respondent has submitted an Offer of Settlement (the “Offer”) which the Commission has determined to accept. Solely for the purpose of these proceedings and any other proceedings brought by or on behalf of the Commission, or to which the Commission is a party, and without admitting or denying the findings herein, except that Respondent has admitted the Commission’s jurisdiction over it and over the subject matters set forth herein, Respondent has consented to the entry of this Order Instituting

Proceedings Pursuant to Section 8A of the Securities Act of 1933 and Section 21C of the Securities Exchange Act of 1934, Making Findings, and Imposing a Cease-and-Desist Order (“Order”) as set forth below.

III.

On the basis of this Order and Respondent’s Offer, the Commission finds that:

1. TALX Corporation, a Missouri corporation with its principal place of business in St. Louis, Missouri, provides automated employment verification services and automated employee self-service applications. TALX became public in 1996 and its common stock is registered with the

Commission pursuant to Section 12(g) of the Exchange Act. The company's fiscal year ends March 31, and it files reports on Forms 10-K and 10-Q. TALX common stock is quoted on the NASDAQ National Market System.

2. During fiscal 2001, and through a secondary offering of common stock completed on August 3, 2001, TALX placed emphasis on meeting its internal and external financial projections, and highlighted its earnings growth to the market. For example, in an October 2000 investor conference call concerning the company's 2001 second quarter earnings, a TALX executive stated, "We believe that the trend of the last 7 quarters of delivering substantial [earnings per share] increases, and 3 quarters of delivering 50 plus percent quarter over quarter increases, will continue." Similarly, on January 17, 2001, TALX announced a 50% increase in its third quarter earnings per share ("EPS") and a 53% increase in its EPS for the nine months ended December 31, 2000.

3. During early 2001, TALX began to consider raising additional capital through a secondary stock offering. On April 25, 2001, TALX announced it had met its fourth quarter and year ended March 31, 2001 EPS target, and that its EPS had grown by more than 50%. After informing the market in its April 26, 2001 investor conference call that TALX expected its 2001 earnings trend to continue through 2002, TALX set the stage for a secondary offering.

4. On June 22, 2001, TALX filed an S-3 registration statement with the Commission. On June 28, 2001, TALX filed its 2001 Form 10-K. TALX filed three amendments to its S-3 registration statement in July and August 2001, two of which incorporated the financial statements contained in TALX's 2001 Form 10-K. TALX's 2001 financial results were also contained in TALX's Forms 10-K filed on July 1, 2002 and May 22, 2003, and in TALX's Forms 8-K filed on July 16 and July 18, 2001 and on June 25, 2002.

5. On July 18, 2001, TALX reported record first quarter 2002 earnings with earnings growth exceeding 50%. Between April 2000 and August 3, 2001, TALX's stock price had climbed 240%, from approximately \$10 to \$34. Between April 26, 2001 and August 3, 2001, TALX's stock price had increased from approximately \$26 to \$34. On August 3, 2001, TALX filed with the Commission a prospectus and completed its secondary offering of 2.95 million shares of common

stock for \$32 per share, raising approximately \$82 million for the company.

6. TALX met its 2001 financial targets and increased its stock price through accounting misstatements which inflated falsely TALX's financial performance. TALX's misstatements involved an improper bill and hold transaction and other premature revenue recognition; capitalizing costs relating to a patent infringement claim that should have been expensed; and expensing bonuses in the wrong period. As a result of these misstatements, TALX overstated fiscal 2001 income by approximately \$2.1 million, or 65%.

7. First, TALX used a fraudulent bill and hold transaction to inflate fiscal 2001 income. In early fiscal 2001, TALX desired to characterize a transaction with a TALX Customer Premises System ("CPS") client as a "bill and hold" sale. The transaction did not meet the requirements of a bill and hold sale under generally accepted accounting principles ("GAAP") because the bill and hold was not at the customer's request; there was no valid business purpose; the customer refused to take title to the TALX systems until delivery; and normal billing terms were modified. As a consequence, TALX improperly recognized \$52,000 of income in the second quarter ended September 30, 2000.

8. Second, TALX recognized fraudulently implementation service revenue on CPS transactions. TALX recognized CPS implementation service revenue using the percentage-of-completion method of accounting. Under that method, TALX should have recognized revenue, costs, and gross profit as it progressed toward completion on CPS projects. TALX, however, did not have sufficient internal controls or other accounting policies and procedures in place to measure and record accurately the work performed on CPS projects and therefore to recognize the appropriate amount of service revenue. The breakdown in internal controls allowed TALX to recognize prematurely implementation service revenue and manipulate the revenue to meet earnings targets. As a result, TALX overstated CPS service income by \$358,000, or 11%, in 2001. Without this revenue, TALX would have missed its EPS targets for the quarters ended September 30, 2000 and December 31, 2000, and for the year ended March 31, 2001, instead of meeting or exceeding its targets as it reported.

9. Third, TALX fraudulently capitalized costs relating to a patent infringement claim. On or about March 13, 2001, TALX entered into a license agreement with the patent holder relating to the claim. TALX's payment to the patent holder included payment for claimed past use of the patented technology, which was a period cost requiring immediate recognition under GAAP. In its 2001 Form 10-K financial statements, however, TALX capitalized the payment. By capitalizing the payment, TALX overstated income by \$1.6 million, or 49%, in fiscal year 2001. Had TALX properly expensed the \$1.6 million, TALX would have fallen short of its previously announced 50% earnings growth rate.

10. Fourth, TALX fraudulently expensed bonuses paid to three executives. On or about April 12, 2001, three TALX executives gave up half their fiscal year 2001 bonuses, in aggregate totaling \$158,000. One month later, on or about May 15, 2001, TALX paid bonuses totaling \$158,000 to the executives. GAAP requires that administrative salaries be expensed in the period of the event when the cost occurred. The reinstated bonuses should have been expensed in fiscal 2001, but TALX improperly expensed them in fiscal 2002. As a result, TALX overstated its fiscal 2001 income by \$158,000, or 5%.

11. Further, prior to and in its 2001 fiscal year, TALX used the percentage-of-completion method of accounting for certain other service transactions. Pursuant to GAAP, the service revenue should have been recognized on a straight-line basis. After TALX's auditors brought this to the company's attention, TALX restated its revenue. As a result of using the wrong method of revenue recognition, TALX overstated income by approximately \$2 million in 2001.

12. The combined misstatements, including the intentional misstatements and the unintentional use of the wrong revenue recognition method, resulted in TALX overstating its 2001 income by approximately 122%. As a consequence, TALX should have reported an earnings decline for fiscal 2001, not the inflated 56% growth originally reported. Further, the combined misstatements inflated artificially TALX's 2001 stock price leading up to TALX's August 3, 2001 secondary offering. Without the combined misstatements, TALX would have received less than the \$82 million realized in its secondary offering.

13. As a result of the conduct described herein, TALX made material financial misrepresentations in Forms 8-K, 10-K and 10-Q for fiscal years 2001 through the second quarter of 2004, and in its fiscal 2002 registration statement.

14. Section 17(a) of the Securities Act makes it unlawful in the offer or sale of any securities, directly or indirectly, to employ any device, scheme, or artifice to defraud; to obtain money or property by means of any untrue statement of a material fact, or to omit to state a material fact necessary in order to make any statements made, in light of the circumstances under which they were made, not misleading; or to engage in any transaction, practice, or course of business which operates or may be operating as a fraud or deceit upon the purchaser. Section 10(b) of the Exchange Act and Rule 10b-5 thereunder prohibit the misrepresentation of or misleading omission of material facts in connection with the purchase or sale of securities. By engaging in the conduct described herein, TALX committed violations of Section 17(a) of the Securities Act and Section 10(b) of the Exchange Act and Rule 10b-5 thereunder.

15. Section 13(a) of the Exchange Act requires all issuers with securities registered under Section 12 of the Exchange Act to file periodic and other reports with the Commission containing such information as the Commission's rules prescribe. Pursuant to Section 13(a), the Commission promulgated Rules 13a-1, 13a-11, and 13a-13 that require issuers to file annual, current and quarterly reports, respectively. The reporting requirements necessarily include the requirement that the issuer supply accurate information. In addition, Rule 12b-20 requires that reports contain such further material information as may be necessary to make the required statements, in light of the circumstances under which they were made, not misleading. As a result of the conduct described herein, TALX committed violations of Section 13(a) of the Exchange Act and Rules 12b-20, 13a-1, 13a-11, and 13a-13 thereunder.

16. Section 13(b)(2)(A) of the Exchange Act states that every Section 12 registrant must "make and keep books, records, and accounts, which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the issuer." As a result of the conduct described herein, TALX violated Section 13(b)(2)(A) of the Exchange Act.

17. Section 13(b)(2)(B) states that every issuer must “devise and maintain a system of internal accounting controls sufficient to provide reasonable assurances that . . . (ii) transactions are recorded as necessary (I) to permit preparation of financial statements in conformity with generally accepted accounting principles or any other criteria applicable to such statements” As a result of the conduct described herein, TALX violated Section 13(b)(2)(B) of the Exchange Act.

IV.

In view of the foregoing, the Commission deems it appropriate to impose the sanctions agreed to in Respondent TALX’s Offer.

Accordingly, it is hereby ORDERED that Respondent cease and desist from committing or causing any violations and any future violations of Section 17(a) of the Securities Act and Sections 10(b), 13(a), and 13(b)(2) of the Exchange Act and Rules 10b-5, 12b-20, 13a-1, 13a-11, and 13a-13 thereunder.

IT IS FURTHERED ORDERED that Respondent shall, within ten days of the entry of this Order, pay disgorgement in the amount of \$1. Such payment shall be: (A) made by United States postal money order, certified check, bank cashier’s check or bank money order; (B) made payable to the Clerk of the Court, United States District Court for the Eastern District of Missouri; (C) hand-delivered or mailed to the Clerk of the Court, United States District Court for the Eastern District of Missouri, 111 S. 10th Street, St. Louis, Missouri 63102; and (D) submitted under cover letter that identifies that the payment shall be deposited into the Court Registry Investment System

(“CRIS”) account established for the action titled Securities and Exchange Commission vs. TALX Corporation, a copy of which cover letter and money order or check shall be sent to Donald M. Hoerl, Associate Director, and Ian S. Karpel, Branch Chief, Division of Enforcement, Securities and Exchange Commission, 1801 California Street, Suite 1500, Denver, Colorado 80202-2648.

By the Commission.

Jonathan G. Katz

Secretary

ORDER INSTITUTING PROCEEDINGS PURSUANT TO SECTION 8A OF THE SECURITIES ACT OF 1933 AND SECTION 21C OF THE SECURITIES EXCHANGE ACT OF 1934, MAKING FINDINGS, AND IMPOSING A CEASE-AND-DESIST ORDER

I.

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II.

In anticipation of the institution of these proceedings, Respondent has submitted an Offer of Settlement (the “Offer”) which the Commission has determined to accept. Solely for the purpose of these proceedings and any other proceedings brought by or on behalf of the Commission, or to which the Commission is a party, and without admitting or denying the findings herein, except that Respondent has admitted the Commission’s jurisdiction over him and over the matters set forth herein, Respondent has consented to the entry of this Order Instituting

Proceedings Pursuant to Section 8A of the Securities Act of 1933 and Section 21C of the Securities Exchange Act of 1934, Making Findings, and Imposing a Cease-and-Desist Order (“Order”) as set forth below.

III.

On the basis of this Order and Respondent’s Offer, the Commission finds that:

1. TALX Corporation (“TALX”), a Missouri corporation with its principal place of business in St. Louis, Missouri, provides automated employment verification services and automated employee self-service applications. TALX became public in 1996 and its common stock is registered

with the Commission pursuant to Section 12(g) of the Exchange Act. The company's fiscal year ends March 31, and it files reports on Forms 10-K and 10-Q. TALX common stock is quoted on the NASDAQ National Market System.

2. Canfield, age 65, a resident of Kirkwood, Missouri, has been the president and chief executive officer of TALX since 1987. He has been the chairman of the board of directors of TALX since 1988.

3. During the time period relevant to this Order, TALX placed emphasis on meeting its internal and external financial projections, and highlighted its earnings growth to the market. For example, in an October 2000 investor conference call concerning the company's second quarter earnings, Canfield stated, "We believe that the trend of the last 7 quarters of delivering substantial [earnings per share] increases, and 3 quarters of delivering 50 plus percent quarter over quarter increases, will continue." Similarly, on January 17, 2001, TALX announced a 50 percent increase in its third quarter earnings per share and a 53 percent increase in its earnings per share for the nine months ended December 31, 2000.

4. During early 2001, TALX began to consider raising additional capital through a secondary stock offering. On April 25, 2001, TALX announced it had met its fourth quarter and year ended March 31, 2001 earnings per share target, and that its earnings per share had grown by more than 50%. After informing the market in its April 26, 2001 investor conference call that TALX expected its 2001 earnings trend to continue through 2002, TALX set the stage for the secondary offering.

5. On June 22, 2001, TALX filed an S-3 registration statement with the Commission. On June 28, 2001, TALX filed its 2001 Form 10-K. TALX filed three amendments to its S-3 registration statement in July and August 2001, two of which incorporated the financial statements contained in TALX's 2001 Form 10-K. TALX's 2001 financial results were also contained in TALX's Forms 10-K filed on July 1, 2002 and May 22, 2003, and in TALX's Forms 8-K filed on July 16, 2001, July 18, 2001, and on June 25, 2002.

6. On July 18, 2001, TALX reported record first quarter 2002 earnings with earnings growth

exceeding 50%. Between April 2000 and August 3, 2001, TALX's stock price had climbed 240%, from approximately \$10 to \$34. Between April 26, 2001 and August 3, 2001, TALX's stock price had increased from approximately \$26 to \$34. On August 3, 2001, TALX filed with the Commission a prospectus and completed its secondary offering of 2.95 million shares of common stock for \$32 per share, raising approximately \$82 million for the company and \$6 million for Canfield.

7. TALX, however, met its 2001 financial targets through accounting misstatements which inflated falsely TALX's financial performance. The misstatements inflated artificially TALX's 2001 stock price leading up to TALX's August 3, 2001 secondary offering.

8. TALX's misstatements included capitalizing costs relating to a patent infringement claim that should have been expensed. On or about March 13, 2001, TALX entered into a license agreement with a patent holder. TALX's payment to the patent holder included payment for claimed past use of patented technology, which was a period cost requiring immediate recognition under generally accepted accounting principles ("GAAP"). TALX, however, capitalized the payment. Canfield knew or should have known that the payment should have been expensed. Had TALX properly expensed the payment, TALX would have fallen short of its previously announced financial projections. Instead, TALX overstated pre-tax income by \$1.6 million, or 49 percent, for its fiscal year ended March 31, 2001.

9. TALX's misstatements further included expensing bonuses in the wrong period. On or about April 12, 2001, Canfield and two other TALX executives gave up half of their fiscal year 2001 bonuses, in aggregate totaling \$158,000. One month later, on or about May 15, 2001, TALX paid bonuses totaling \$158,000 to Canfield and the other executives. GAAP requires that administrative salaries be expensed in the period of the event when the cost occurred. The reinstated bonuses should have been expensed in fiscal 2001, but TALX expensed them in fiscal 2002. Canfield knew or should have known that the bonuses were improperly expensed in fiscal 2002. By expensing the bonuses in the wrong period, TALX overstated its fiscal 2001 pre-tax income by \$158,000, or 5 percent.

10. As a result of the conduct described above, TALX made material financial misrepresentations in Forms 10-K and 10-Q for the years ended March 31, 2001 and 2002, and for the three months ended June 30, 2002, and in TALX's fiscal 2002 registration statement. TALX overstated its fiscal 2001 pre-tax income by \$1.8 million, or 54 percent.

11. Section 17(a)(2) of the Securities Act makes it unlawful in the offer or sale of any securities to obtain money or property by means of any untrue statement of a material fact or any omission to state a material fact necessary in order to make the statements made, in light of the circumstances in which they were made, not misleading. Section 17(a)(3) of the Securities Act makes it unlawful in the offer or sale of any securities to engage in any transaction, practice, or course of business which operates or would operate as a fraud or deceit upon the purchaser. By engaging in the conduct described herein, Canfield caused violations of Sections 17(a)(2) and (3) of the Securities Act.

12. Section 13(a) of the Exchange Act requires all issuers with securities registered under Section 12 of the Exchange Act to file periodic and other reports with the Commission containing such information as the Commission's rules prescribe. Pursuant to Section 13(a), the Commission promulgated Rules 13a-1 and 13a-13 that require issuers to file annual and quarterly reports, respectively. The reporting requirements necessarily include the requirement that the issuer supply accurate information. In addition, Rule 12b-20 requires that reports contain such further material information as may be necessary to make the required statements, in light of the circumstances under which they were made, not misleading. As a result of the conduct described herein, Canfield was a cause of TALX's violations of Section 13(a) of the Exchange Act and Rules 12b-20, 13a-1, and 13a-13 thereunder.

13. Section 13(b)(2)(A) of the Exchange Act states that every Section 12 registrant must "make and keep books, records, and accounts, which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the issuer." Rule 13b2-1 provides that no person shall, directly or indirectly falsify or cause to be falsified, any book, record, or account subject to Section 13(b)(2)(A). As a result of the conduct described herein, Canfield committed violations of

Rule 13b2-1 of the Exchange Act, and was a cause of TALX's violations of Section 13(b)(2)(A) of the Exchange Act.

IV.

In view of the foregoing, the Commission deems it appropriate to impose the sanctions agreed to in Respondent's Offer.

Accordingly, it is hereby ORDERED that Respondent cease and desist from committing or causing any violations and any future violations of Section 17(a) of the Securities Act and Exchange Act Rule 13b2-1, and from causing any violations and any future violations of Sections 13(a) and 13(b)(2)(A) of the Exchange Act and Rules 12b-20, 13a-1, and 13a-13 thereunder.

IT IS FURTHERED ORDERED that Respondent shall, within ten days of the entry of this Order, pay disgorgement and prejudgment interest in the total amount of \$859,999. Such payment shall be: (A) made by United States postal money order, certified check, bank cashier's check or bank money order; (B) made payable to the to the Clerk of the Court, United States District Court for the Eastern District of Missouri; (C) hand-delivered or mailed to the Clerk of the Court, United States District Court for the Eastern District of Missouri, 111 S. 10th Street, St. Louis, Missouri 63102; and (D) submitted under cover letter that identifies that the payment shall be deposited into the Court Registry Investment System ("CRIS") account established for the action titled Securities and Exchange Commission v. TALX Corporation, a copy of which cover letter and money order or check shall be sent to Donald M. Hoerl, Associate Director, and Ian S. Karpel, Branch Chief, Division of Enforcement, Securities and Exchange Commission, 1801 California Street, Suite 1500, Denver, Colorado 80202-2648.

By the Commission.

Jonathan G. Katz

Secretary

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