

WORKPLACE DISRUPTIONS IMPACT ON FINANCIAL REPORTING QUALITY

by

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**Dedicated to
Marlene and Zeke Sigler**

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Workplace Disruptions Impact on Financial Reporting Quality

ABSTRACT

This study provides evidence that workplace disruptions impact financial reporting quality. I use the novel setting of company headquarter relocation to study workplace disruptions. I find that workplace disruptions are negatively associated with financial reporting quality. Additionally, I find limited evidence that external auditors with more expertise and auditor selection (a closer office within the same audit firm) can partially mitigate the negative effects of workplace disruptions on financial reporting quality. Both mitigating effects are present in companies that relocate headquarters by a distance of 100 kilometers or greater. This study is relevant to financial reporting research, given the increasing frequency of workplace disruptions.

I. INTRODUCTION

The purpose of this study is to identify if corporate workplace disruptions¹ negatively affect financial reporting quality and if the auditor can mitigate this cost. Specifically, I examine corporate headquarter relocations and their impact on financial reporting quality via 1) corporations' propensity to issue a restatement and 2) increase the level of estimation (i.e., accruals) in their financial statements. I also examine whether auditor expertise and switching audit offices within-firm mitigate the negative effects of headquarter relocations.

The location of the corporate workplace varies. It includes offices, manufacturing facilities or factories, stores, farms, outdoors, and other locations where employees perform work. Prior research identifies that the corporate workplace can impact employee output. Leblebici 2012 finds that the physical workplace conditions impact employee productivity. Further, a physical workplace in good condition improves business results (Mohr 1996) and increases communications levels throughout the company (Huang, Robertson, and Chang 2004). Meanwhile, the accounting literature finds that the corporate workplace impacts financial reporting (e.g., Edmans 2011, 2012; Guo, Huang, Zhang, and Zhou 2016). While evidence shows that the physical workplace can impact employee productivity, research has yet to identify whether a physical workplace disruption, such as workplace relocation, affects financial reporting.

A workplace disruption can affect several aspects of the financial reporting process. Even though workplace disruptions may not directly affect business processes or IT systems related to financial reporting, workplace disruptions could still affect the preparers of the financial

¹ I use the term disruption to describe a non-regular change to a company's personnel's working environment, resulting in a change in communication across the company. This disruption may involve a change in personnel, workplace, or communication methods.

statements. This disruption likely requires personnel directly responsible for financial reporting and those who provide evidence to the auditor to transition to a new location to perform their duties, perform duties remotely or hire new personnel to replace those unable to relocate to the new office. The disruption may also align with reassigning tasks in the interim or permanently. The workplace disruption may impact financial reporting at the corporation in two main ways. Firstly, those who prepare the financial statements may utilize new communication channels to access information to complete their reports. Additionally, financial reporting processes may have changed to facilitate the transition of employees. These process changes require the revision of controls as different personnel perform unfamiliar duties. The personnel fluctuation may cause the identification of control revisions to take additional time and may not be in place for the annual report. As a result, controls designed for reporting processes pre disruption will be in place and not the appropriately designed control for post disruption increasing the likelihood of errors in financial reporting.

To examine workplace disruptions' impact on financial reporting quality, I use the novel setting of corporate headquarters relocation. The setting of headquarter relocation provides a unique insight into the impact of workplace disruptions. A corporate headquarters can take the form of a building or campus to house a corporation's executive, managerial, human resources, corporate communications, legal and accounting teams, and primary support teams and staff (Strauss-Khan and Vives 2009). Prior research identifies that, on average, 5% of corporations will move offices each year (Strauss-Khan and Vives 2006). While common, a workplace's relocation creates a disruption that impacts employees' work output through distractions, new employees performing new processes, and employees working remotely. Survey evidence also finds employees' work-life is affected by workplace relocations, with 67% of employees facing

challenges when moving to a new space, including distractions (30% of employees surveyed) and loss of productivity (20% of employees surveyed) (Herhold 2019).

The impact of workplace disruptions will not only affect employees of the company. Financial statements are a product of financial reporting and auditor monitoring (McCracken, Salterio, and Gibbins 2008). For a financial reporting failure to occur, the report's preparers must misreport, and the auditors must fail to identify the error. Therefore, the auditor is a part of the company's financial reporting process, and issues stemming from disruptions may impact the execution of the audit. Workplace disruptions are explicitly identified as a potential risk area by the AICPA as relocating may lead to scope limitations of the audit (AICPA 2020). The scope limitations are partly due to the lack of informal communications between the auditor and the company and the changes in financial reporting processes that must occur, as auditors will be required to identify and test changes in controls.

During a company headquarter relocation, auditors will be required to move with the headquarters or change the way they communicate with their client contacts located in the headquarters. The auditor will have to change how or whom they contact at the company with information related to the audit. However, specific auditor attributes may mitigate the negative effect of workplace disruptions. I hypothesize that expert auditors can use information obtained through the audits of their client base to substitute information lost in the client disruption. I use the proxies of audit office size and auditor industry expertise to measure auditor expertise.

While the company employs the auditor, the auditor is not required to relocate with the company during a corporate relocation. The information channel between the auditor and company may or may not be improved if the audit office changes to closer proximity to the company's new headquarters. I also examine whether auditors with better communication

channels, as proxied by companies switching to a closer auditor, mitigate the effects of company workplace disruptions. I find that both auditors with expertise and companies that change their auditor within a firm to an audit office closer to their headquarters can partially mitigate the negative effects related to workplace disruptions.

This study makes several contributions to the accounting literature. First, this study examines the importance of physical corporate workplace consistency in financial reporting quality. There is little, if any, archival research that analyzes the impact of corporate workplace disruptions on financial reporting quality. Prior literature examines components of the work environment², such as how employee satisfaction impacts financial reporting quality. These studies find that a better workplace environment is associated with better financial reporting quality (e.g., Wells 2002, Edmans 2011, and Edmans 2012). Rather than examining corporate moral and social factors, this study examines how a change to the physical workplace impacts financial reporting quality.

Additionally, I examine how a workplace disruption impacts financial reporting. Accounting research has identified how various workplace disruptions can impact financial reporting. Prior literature examines how CEO changes can impact financial reporting quality (Wells 2002). Other prior research also identifies disruption of a merger impacts financial reporting quality (e.g., Cai et al. 2013, Dhaliwal et al., 2017). While poor financial quality stemming from the disruption of a CEO change arise due to incentives new executives have to take an earnings bath, and a decrease in financial reporting due to a merger is due to the integration of a new component to the company and miscommunication amongst the acquirer and target, I examine how a company relocation, and the related disruption to the working

² A work environment is defined as the setting, social features, and physical conditions in which an employee performs their job (Tracy et al., 1995).

environment of personnel responsible for preparing the financial reports impacts financial reporting quality.

I also contribute to the literature on auditor expertise. In contrast to prior literature, which documents that auditor expertise impacts financial reporting (e.g., Francis and Yu 2009 and Johnstone et al. 2014), I examine how auditor expertise can mitigate the disruption in accessing client information. It is unclear if auditor expertise will be applicable in this setting because the client disruption may only affect client-specific aspects of the company. If only client-specific elements are affected by the disruption, then the auditor expertise gained from auditing various engagements will not mitigate corporate workplace disruptions. This study adds to the literature on how audit office-specific attributes can overcome communication challenges from disruption. Additionally, this study also contributes to how communication and information throughout the financial reporting process affect quality.

This study is pertinent to current and future workplace trends. More employees are transitioning to a remote workplace. Additionally, it is estimated that 77% of office employees transitioned from the office to work from home due to the Covid-19 pandemic (PWC 2020). Though this study does not directly research the impact of these specific workplace disruptions, the current research provides timely insight as to the effects one type of workplace disruptions impact financial reporting quality.

Together the findings of this study indicate that companies that relocate headquarters are more likely to restate their financial statements and have larger accruals. These results suggest that workplace disruptions are associated with poorer financial reporting quality. However, there is a partially mitigating effect to the negative impact of relocating corporate headquarters if a company employs an expert auditor or changes its audit office while maintaining the audit firm.

Both mitigating factors are associated with companies that relocate their headquarters at or greater than 100 kilometers from their previous location.

The rest of this paper proceeds as follows. Section 2 provides background literature on financial reporting and workplace disruptions and develops the hypotheses. Section 3 presents the sample selection and size of the study, and Section 4 reports the study's design. Section 5 reports the results of my empirical analyses. Section 6 reports robustness tests, and Section 7 concludes.

II. BACKGROUND AND HYPOTHESES DEVELOPMENT

Background on Corporate Disruptions

Corporate disruptions can create a variety of events that impact the company's personnel or the auditor. Prior research finds these events have both positive and negative effects on financial reporting quality. One such disruption is a change in personnel which research finds is generally associated with poor financial reporting quality. For example, changes in corporate executives such as CEOs result in higher earnings management (Wells 2002). Wells 2002 hypothesizes the increase in earnings management is due to the incoming CEOs capitalizing on the transition in management to blame prior leadership for poor performance and taking an earnings bath. The reduction in earnings in the year of transition will reverse, increasing future profits of the company. While Wells 2002 focuses on CEOs' ability to manage earnings during a corporate disruption from a change in leadership, the current study differs by examining the effect a disruption to the workplace has on the employees responsible for the entire financial reporting process. This disruption may include a change in employees; however, this includes changes in employees at all levels, not just the CEO. While prior research examines incentives of a new CEO driving earnings management, in this study, a workplace disruption will impact

the financial reporting process as a whole. The workplace disruption may lead to weaker controls causing errors in financial reporting.

Mergers and acquisitions are another type of corporate disruption that prior literature documents as negatively impacting the communication amongst the financial report preparers. Corporate acquisitions require reporting a new component of the acquiree and new personnel from the acquisition target to communicate with the corporate financial reporting. Research finds mergers and acquisitions to be negatively associated with financial reporting quality. This finding is attributable to uncertainty regarding the acquisition's underlying economics due to a lack of communication between the target and acquirer (e.g., Cai et al. 2013, Dhaliwal et al., 2017). This uncertainty can cause misreporting stemming directly from the newly acquired entity.

In contrast, in my setting of workplace disruptions, a new component is not integrated into an existing corporate framework or consolidation of financial reporting. Instead, the underlying entities of the company operations remain unchanged during a disruption. Rather there is a change in employee personnel and financial reporting processes. Unlike a merger, a workplace disruption does not cause new accounting systems from new entities to be integrated into the financial reporting process. Rather, in a workplace disruption, employees charged with the financial reporting process may see a change to their day-to-day work environment which may negatively impact the preparation of financial reporting.

Background on the Corporate Workplace

While prior literature examines various types of corporate disruptions, there is scant research on how disruption to the workplace impacts financial reporting. However, prior research has examined the importance of the employees' work environment to financial reporting quality.

Empirical studies show that firms with better employee treatment have more robust performance and internal controls (e.g., Edmans 2011, 2012; Guo, Huang, Zhang, and Zhou 2016). For example, Edmans 2011 finds that employee satisfaction, as proxied by a listing of the Fortune magazine 100 best companies to work for, is positively associated with long-run stock returns. Likewise, Guo et al. 2016 find that companies implementing employee-friendly policies are less likely to have restated financial statements. These studies find that an employee-friendly workplace strengthens the firm's human capital and attenuate internal control inefficiencies.

The client work environment also impacts the auditor. A positive environment improves productivity and creates a positive culture of honesty and ethics, an essential factor for auditors to consider when evaluating risks (Huang et al., 2017). While the social setting of the work environment, such as positivity and culture, improves human capital and financial reporting quality, changes to the physical workplace affect the communication of the company and the processes associated with financial reporting.

Hypothesis Development

While the workplace environment impacts financial reporting, workplace disruptions do not directly relate to financial reporting changes. A new headquarter location may lead to a change in fixed assets or obligations associated with the new workplace. However, the majority of material disclosures are unaffected by workplace disruptions. On the other hand, workplace disruptions may negatively impact financial reporting because the disruption affects the pre-audit quality of financial reports prepared by the company or the ability to provide assurance. The former could occur due to disruptions in internal communication and internal control procedures. The preparation of annual reports requires the amalgamation of information from various components. As prior literature finds that internal communication is vital to share information

throughout the financial reporting process (Garrett, Hotash, Prawitt 2014), better organizational communication will lead to more accurate information across the organization, leading to identifying potential misstatements.³ When a company relocates its headquarters, the personnel that prepares the financial statements will be directly affected. This disruption may result in new personnel performing tasks, personnel not moving to work remotely, or personnel relocating with the company. These changes in where and how employees work will result in a communication disruption amongst the preparers of the financial reporting standards and changes in processes requiring revised controls. Such changes increase the likelihood of errors occurring and reduce the likelihood of detecting errors, reducing financial reporting quality.

The strain of workplace disruption can also affect the external auditor. Obtaining client-specific knowledge such as internal control structure and substandard reporting opportunities is vital for auditors to plan audits effectively, identify relevant audit risks, and interpret audit evidence properly (Knechel et al., 2007). Communication is essential for the audit engagement team to obtain client-specific information to perform audit procedures efficiently and effectively. Survey evidence of Carcello et al. 1992 suggests that knowledgeable audit teams, frequent communications between auditors and the company, and regular visits by the audit engagement partner and senior manager to an audit site are among the ten highest rated audit attributes. A disruption in information flow between the auditor and the company will hinder the auditor's ability to obtain client-specific information, resulting in lower financial reporting quality. Each instance of a company employee change will change the manner and timing of communication

³ Standards for internal control over financial reporting also emphasize the role of information sharing within the organization. "Internal communication facilitates the functioning of internal control by sharing information up, down, and across the entity. . . Information is necessary for the organization to carry out its internal control responsibilities to support the achievement of objectives" (COSO [2013, p. 148–49]).

with the auditor. This transition in communication may disrupt the channels to which the auditor attains client information.

Additionally, as there may be process changes to the financial reporting, the disruption may lead to control deficiencies not being identified by the auditor. The lack of identification of these deficiencies will result in lower financial reporting quality as the deficient internal controls will not detect material errors. The inability to identify control deficiencies will also result in lower financial reporting quality. This discussion leads to my first hypothesis:

H1: Workplace disruptions are negatively associated with financial reporting quality.

However, we may observe no impact on financial reporting quality from relocations for two reasons. First, as business processes and corporate entities remain relatively the same, workplace disruptions may not impact the preparer's financial reporting systems. Although workplace personnel may change, the underlying information systems and technology that produce financial reporting data will remain relatively unchanged. Secondly, the audit team may remain the same such that they can adapt to the change in the client environment because of their understanding of the client or expertise.

My second hypothesis examines the mitigating effects expert auditors have on the negative effects of relocating corporations. Expert auditors may mitigate the effects corporate relocations have on financial reporting quality. Expert auditors obtain opportunities through their experience gained on current and prior engagements on detecting and reporting material problems in the financial statements. Expert auditors have gained proficiencies in detecting material problems in the financial statements of SEC registrants (Francis and Yu 2009). As expert auditors are more likely to identify material problems during the audit, expert auditors may be able to identify material problems stemming from workplace disruptions.

The audit literature highlights two key indicators of auditor experts, larger audit offices and industry experts. Larger offices with more engagement hours provide its auditors with greater opportunities to understand detecting material problems in the financial statements of SEC registrants (Francis and Yu 2009). Francis and Yu 2009 claim a large office has more “in-house” experience in dealing with public companies (SEC registrants) and, therefore, more collective human capital in the office. Experience is an important dimension of human capital (Becker 1993). Thus, a larger office with more engagement hours provides its auditors with greater opportunities to acquire expertise in detecting material problems in SEC registrants’ financial statements.

Similarly, industry specialists provide higher audit quality because they have more experience auditing the industry business and accounting practices than non-specialists (Defond and Zhang 2014). Industry specialists have greater expertise with industry accounting practices and can better identify and reign in more aggressive practices (Reichelt and Wang 2010).

Additionally, industry audit experts have developed a reputation for industry expertise. They have an incentive to protect their reputation to earn audit fee premia for that expertise (Craswell, Francis, and Taylor 1995). Auditors may use their expertise to overcome the disruption in information flow from the company and navigate the changes in processes to identify control deficiencies accurately. Based on this reasoning, I state my second hypothesis:

H2: Expert auditors overcome the negative effects workplace disruptions have on financial reporting quality.

However, expert auditors may not overcome the negative effects of relocating companies due to resource constraints. The auditor may need excess resources to combat a corporate disruption. Due to the high demand for higher quality auditors, such as expert auditors, the resources required to achieve the appropriate audit quality may not be readily available to aid in

the audit (e.g., Bills, Swanquist and Whited 2016). The lack of excess resources could result in lower financial reporting quality for auditors that relocate headquarters.

Finally, I examine whether auditors with better communication channels or with client-specific knowledge can mitigate the effects of corporate workplace disruptions. I examine this research question through the retention or switching of audit offices during a corporate relocation. When a company moves headquarters, it has the option to retain its auditor, who has advanced knowledge from previous years' experience or switch to an auditor closer to their location, who will be able to visit the client site more frequently. However, there are costs and benefits to both retaining and changing auditors. There are two competing theories on the impact of switching auditors has on financial reporting quality. The first indicates that longer-tenured auditors attain client-specific information over time and perform audit procedures more effectively. Aobdia et al. 2021 find that auditor client experience is associated with better audit quality. Further, research finds that audit firm changes resulting in a completely new engagement team are negatively related to financial reporting quality (e.g., Ghosh and Moon 2005, Mansi et al. 2004). The auditors' loss of client-specific knowledge results in lower financial reporting quality in both audits interfirm switches (e.g., Hollingsworth et al. 2020) and switching between audit firms (e.g., Deis and Giroux 1992, Bazerman, Loewenstein, and Moore 2002, Davis et al. 2009).

Maintaining the auditor during a major corporate event has been shown to mitigate certain circumstances which negatively impact financial reporting. For example, Cai et al. 2016 find that acquirers and targets that share the same auditor pre-merger in corporate mergers see no decline in their financial reporting quality. In contrast, mergers, where targets and acquirers have different auditors' pre-merger, do experience a decline in financial reporting quality. The

difference is attributable to the auditor's ability to share information about the entities involved in the merger post-acquisition. Hence in my setting, it is possible that retaining an auditor will help the company experiencing a disruption maintain high financial reporting quality because the auditor can use their knowledge of the client to adapt to the company's changes. When there is a workplace disruption, a longer-tenured auditor will use their previous knowledge of corporate systems and relationships with company personnel to obtain the information required to perform procedures needed to achieve sufficient assurance. Switching auditors may result in losing this client-specific knowledge and must establish an understanding with a client.

Alternatively, switching to a new auditor could result in better financial reporting quality relative to retaining the old auditor for two reasons. First, proponents of auditor rotation hypothesize that auditor changes improve audit quality by improving auditor independence. Prior research shows mixed evidence of fresh-look improving audit quality in the area of partner changes (Lennox et al., 2014). Overall, there is limited evidence of whether auditor changers and the fresh-look hypothesis improve quality.

A second reason switching auditor may improve audit quality is that it may reduce the distance between the auditor and client. Prior research indicates that local auditors are associated with higher quality audits than non-local auditors due to the local auditor's ability to more easily attain client-specific information given their proximity to the client (Choi et al., 2012).

Therefore, switching to a local auditor may permit a company that moves their headquarters to an auditor close by increasing financial reporting quality. When a company moves headquarters, the distance between the company and the auditor will change. Information will be passed more easily from the company to the auditor, increasing the auditor's ability to plan and perform the

audit procedures effectively. Additionally, the new auditor could benefit from a fresh look and improved independence.

A relocating company is not restricted to choosing a different audit firm when switching to a local auditor. When switching to a different location from its headquarters, the company can switch to a different firm or a different office within the same firm as their current auditor. The decision to switch within-firm may have a different effect than switching to a different firm. Audit firms can share information between engagement teams within a firm more easily. This information includes prior year workpapers and access to personnel on previous engagements. Changes in audit offices within-firm are subject to a deterioration of financial reporting quality due to loss of client knowledge (Hollingsworth et al., 2020).

However, in the setting of client headquarter relocation, an audit engagement subject to an interfirm change will have access to prior period information. Engagement team members may relocate to an audit office closer to the companies headquarters. Also, engagement partners are not restricted from the audit office assigned to the client (Francis et a. 2021). Therefore, key engagement team members may continue to audit the relocating company even if it switches audit offices. Due to the ability to retain engagement members, an engagement team from a new office with infirm may not need to renew their understanding of the company. Additionally, the interfirm switched auditor will benefit from a better communication channel to the client and a fresh perspective from the prior audit office. These factors allow the auditor to use their proximity to the client to overcome the communication disruption. My hypothesis on maintaining auditors or switching auditors to different audit firms or audit offices in the wake of workplace disruption is:

H3: Switching audit offices has no change on the negative effects of workplace disruptions.

III. SAMPLE AND DESIGN

I begin my analysis with a sample of all public companies in the U.S. from 2002-2019. I identify these companies available through the Compustat database with sufficient data. To obtain information regarding the external auditor, I merge this dataset with Audit Analytics. I add control variables on executive turnover and labor characteristics by merging Boardex and U.S. Census Bureau's American Community Survey. As firms in certain industries are primarily regional and will not be prone to relocation, I eliminate all financial service firms and utility companies (SIC codes 6900-6999 and 4900-4999). Table 1 panel a shows sample attrition. The total sample for this study is 36,599 firm-year observations.

Corporate Relocation Measure

To proxy workplace disruptions, I identify company headquarters relocation. I use changes in business addresses from header data of 10-Ks to identify the headquarters relocation⁴. This dataset contains the historical 10-k header information extracted from annual reports. For this sample, a total of 2,160 companies have relocated in the sample period. Table 1 Panel B shows the breakout of relocations of the sample. Relocations total approximately 6% of the total sample of firm observations.

Any workplace relocation disrupts the work environment. However, prior research indicates that a distance of over 100 kilometers is outside of the reasonable commute to work, indicating a need to relocate or pursue other employment opportunities (Choi et al., 2012, Coval and Moskowitz 2001 and Kedia and Rajgopal 2011).

⁴ I use historical header data from the University of Notre Dame Software Repository for Accounting and Finance. The data can be found at the website: <https://sraf.nd.edu/data/augmented-10-x-header-data/x>.

Table 1: Sample Description

Panel A describes the sample selection used in my analysis and sample loss from various data requirements. Panel B describes the sample of headquarter relocation split by those who have moved under 100 kilometers and those who have moved greater than 100 KM.

Panel A: Sample Selection

	Number of Observations
Observations from Compustat from years 2002-2019	134,872
Less firm years without full Compustat data	-26,948
Less firm years without Audit Analytics data	-38,675
Less firm years without SEC Header Data	-17,665
Less firm years without Census Education data	-11,455
Less utility and financial firms (SIC codes 6900-6999 and 4900-4999)	-3,570
Total Sample with available data	36,559
Subset of firm years with relocated headquarters	2,160

Following these findings, I develop an alternative proxy for corporations that relocate headquarters more than 100 kilometers for workplace disruptions. To identify the distance between the prior headquarters and the new headquarters, I utilize the zip code of firms that have changed addresses from the prior year from the historical header data. I use the SAS DISTANCE command to identify the distance between the previous years' zip code and the zip code of the company headquarters in the year of relocation.

As documented in Table 1 Panel B, all relocated companies' average distance between headquarters is 534 kilometers. However, when split into the groups under and over 100 kilometers, headquarters that relocate under 100 kilometers total 1,466 observations or 68%, averaging a distance of 14.2 kilometers moved. On the other hand, companies that relocate over 100 kilometers compose 694 observations or 32%, relocating to a distance of 1,632 kilometers. In my initial test of my hypothesis, I use an indicator variable, taking the value of one for all

relocated headquarters (*move*) for the initial tests of my hypothesis. Due to the disparity in the sample and the possible effects more considerable distances relocated may have on corporate personnel, in separate tests of my hypothesis, I include two different indicator variables for companies that relocate headquarters. The first is *move<100km*, which takes the value of one if a company has relocated to a headquarters under 100 kilometers from its previous headquarters location. The second is an indicator variable taking the value of one for all relocated headquarters over 100 kilometers (*move>100km*).

Company Characteristics Measures

I consider different measures of corporate characteristics that may impact financial reporting, described below, as controls to test my hypotheses. Table 2, Panel A reports the descriptive statistics on my entire sample.

Rather than one universal reason causing a company to relocate, various factors drive a company's decision to change headquarter locations. Chan, Gau, and Wang 1995 examine relocating companies' disclosures and document the reasons to move company headquarters. The primary reasons for moving headquarters are expansion, cost savings, business operating efficiency, capacity reduction or phase-out of business, facilities consolidation, avoidance of a takeover, a natural disaster, governmental regulations, nearness to shareholders, and labor disputes. Though there are various reasons why these companies relocate, one concern of this study is using headquarter relocation to measure workplace disruptions is the underlying factor driving the decision to relocate headquarters may impact financial reporting quality. I control for various factors that may affect financial reporting quality to mitigate this confounding effect in my analysis.

Anecdotal evidence suggests that corporations relocate to areas with a more superior labor force. In 2019, ConAgra Foods decided to relocate its headquarters to Chicago after almost 100 years in Omaha. The CEO claimed his company would “have the best shot to attract the kind of talent his company needs to rebuild its brands and come up with new ideas (Conolly 2019).” As recruiting a better labor force is a possible reason to relocate, I control for two metropolitan statistical area labor force characteristics that positively affect financial reporting quality. Prior literature finds that companies with headquarter locations in highly educated metropolitan areas are associated with higher accounting quality (Call et al. 2017, Beck et al., 2018). As such, I control for areas with an educated labor pool. I follow Beck et al. 2018 to calculate the five-year average educational attainment in a city is the fraction of the city’s population over the age of 25 with at least a bachelor’s degree (*educate*). I obtain this data from U.S. Census Bureau’s American Community Survey. Additionally, because auditors in larger cities are likely to exhibit more accounting expertise to catch accounting errors, I also include the log of the population of the MSA (*ln_pop*) as a proxy for the city size where the company relocates. Table 2 panel B shows companies relocating to areas of similar labor characteristics. The variable *educate* has a mean of 0.28 for both relocators and non-relocators. The mean of the log of the population for non-relocators is 13.17 compared to 13.09 of relocators with a t-statistic of 2.82 and a p-value <.01. While a superior labor force may be a reason to relocate headquarters, the results of Table 2 indicate that companies that relocate are in lower educated and lower populated areas. I predict in my regression analysis both labor force variables to have a negative and significant coefficient, indicating areas with higher levels of education and population are associated with better financial reporting quality. The desire to recruit a high-level executive may also drive the

Table 2 Descriptive Statistics

Panel A shows the descriptive statistics for the entire sample. Panel B shows the descriptive statistics for non-relocating companies and relocating companies. A t-test assesses the differences in means across the subsamples in Panels. Variable definitions are provided in Appendix A. Significance levels are * 10%, ** 5%, and *** 1%, based on two-tailed tests.

Panel A Total Descriptive Statistics

	Variable	Mean	Median	Std. Dev
Test Variables	<i>Move</i>	0.06	0.00	0.24
	<i>move<100km</i>	0.04	0.00	0.20
	<i>move>100km</i>	0.02	0.00	0.13
Dependent Variables	<i>Restate</i>	0.11	0	0
	<i>material_restate</i>	0.05	0	0
	<i>Accruals</i>	0.06	0.04	0
Distance	<i>auditor distance</i>	123.33	13.4	375.88
Labor Market Variables	<i>Educate</i>	0.28	0.28	0.32
	<i>ln_pop</i>	13.16	13.38	13.87
Relocation Control Variables	<i>chg_executive</i>	0.03	0	0.01
	<i>sec_reg_off</i>	0.33	0	1
	<i>Merger</i>	0.33	0	1
	<i>Segments</i>	4.02	3	3
	<i>Δsegment</i>	0.05	0	0
	<i>restructure</i>	0.28	0	0.45
	<i>special item</i>	0.65	0	0.48
Auditor Control Variables	<i>office_size</i>	16.25	16.68	17.98
	<i>mkt_share</i>	0.21	0.19	0.31
	<i>Expert</i>	0.26	0	1
	<i>Influence</i>	0.14	0.05	0.15
	<i>auditor_100KM</i>	0.16	0	0
	<i>local_audit</i>	0.72	1	1
	<i>Tenure</i>	5.6	4	8
	<i>Δ Auditor</i>	0.07	0	0
	<i>Δ Office</i>	0.03	0	0

Panel A (continued)

	Variable	Mean	Median	Std. Dev
Control Variables	<i>Size</i>	5.42	5.63	7.29
	<i>Foreign</i>	0.23	0.00	0.19
	<i>Decye</i>	0.71	1.00	1.00
	<i>Cfo</i>	-0.11	0.07	0.14
	<i>Roa</i>	-0.35	0.02	0.07
	<i>Loss</i>	0.42	0.00	1.00
	<i>Leverage</i>	0.24	0.15	0.34
	<i>Btm</i>	0.34	0.37	0.67
	<i>Mw</i>	0.03	0.00	0.00
	<i>Gc</i>	0.11	0.00	0.00
	<i>Modop</i>	0.39	0.00	1.00
	<i>accel_filer</i>	0.37	0.00	1.00

Panel B Non-relocating Companies and Relocating Companies' Descriptive Statistics

		<u>Difference in means</u>				<u>Medians</u>	
		Non-relocator	Relocator	T-statistic	P value	Non-relocator	Relocator
Dependent Variables	<i>restate</i>	0.11	0.13	-3.63***	0.00	0.00	1.00
	<i>material_restate</i>	0.05	0.07	-3.28***	0.00	0.00	0.00
	<i>accruals</i>	0.06	0.09	4.49***	0.00	0.04	0.04
Distance	<i>auditor distance</i>	70.13	180.57	-21.4126***	0.00	8.14	10.78
Labor Market Variables	<i>educate</i>	0.28	0.28	2.29**	0.02	0.28	0.28
	<i>ln_pop</i>	13.17	13.09	2.82***	0.00	13.38	13.34
Relocation Control Variables	<i>chg_executive</i>	0.03	0.03	-3.30***	0.00	0.00	0.00
	<i>sec_reg_off</i>	0.33	0.33	0.13	0.90	0.00	0.00
	<i>merger</i>	0.34	0.30	3.70***	0.00	0.00	0.00
	<i>segments</i>	4.02	4.02	0.03	0.98	3.00	3.00
	<i>Δsegment</i>	0.05	0.06	-0.99	0.32	0.00	0.00
	<i>restructure</i>	0.2756	0.2746	0.0984	0.9216	0.00	0.00
	<i>special item</i>	0.6486	0.6826	-3.21***	0.0013	0.00	0.00
Auditor Control Variables	<i>office_size</i>	16.28	15.63	13.44***	0.00	16.74	15.83
	<i>mkt_share</i>	0.21	0.17	9.83***	0.00	0.19	0.14
	<i>expert</i>	0.27	0.21	5.69***	0.00	0.00	0.00
	<i>influence</i>	0.14	0.17	-4.68***	0.00	0.05	0.06
	<i>auditor_100KM</i>	0.15	0.30	-18.97***	0.00	0.00	0.00
	<i>local_audit</i>	0.73	0.59	13.37***	0.00	1.00	1.00
	<i>tenure</i>	5.66	4.64	11.49***	0.00	4.00	3.00
	<i>Δ Auditor</i>	0.07	0.09	-3.19***	0.00	0.00	0.00
	<i>Δ Office</i>	0.02	0.07	-12.19***	0.00	0.00	0.00

Panel B Non-relocating Companies and Relocating Companies' Descriptive Statistics (*continued*)

Control Variables		<u>Difference in means</u>				<u>Medians</u>	
		Non-relocator	Relocator	T-statistic	P value	Non-relocator	Relocator
<i>size</i>		5.48	4.47	17.48***	0.00	5.69	4.63
<i>foreign</i>		0.23	0.20	2.76***	0.01	0.00	0.00
<i>decye</i>		0.71	0.76	-5.00***	0.00	1.00	1.00
<i>cfo</i>		-0.09	-0.41	18.17***	0.00	0.07	0.03
<i>roa</i>		-0.32	-0.90	16.66***	0.00	0.02	-0.04
<i>loss</i>		0.41	0.57	-14.90***	0.00	0.00	1.00
<i>leverage</i>		0.24	0.27	-3.62***	0.00	0.15	0.12
<i>btm</i>		0.35	0.21	5.78***	0.00	0.37	0.30
<i>mw</i>		0.03	0.03	-1.20	0.23	0.00	0.00
<i>gc</i>		0.10	0.22	-17.58***	0.00	0.00	0.00
<i>modop</i>		0.38	0.47	-7.89***	0.00	0.00	0.00
<i>accel_filer</i>		0.37	0.25	11.15***	0.00	0.00	0.00

corporation to relocate. However, the change of a CEO and CFO has negative consequences on financial reporting quality (Wells 2002). To control for this effect in my regression analysis, I include a variable for CEO and CFO change (*chg_executive*). I identify changes in CEO and CFO via on BoardEx data. In Table 2 Panel B, the average for the variable *chg_executive* is higher for relocated firms. In untabulated results, the difference in *chg_executive* is 5% for companies that relocated over 100 kilometers versus 3% for all companies that do not relocate. Based on prior literature, I predict this variable will have a positive and significant coefficient, poorer financial reporting quality when executives change.

A company may relocate its headquarters due to a merger or acquisition or create a new business segment. The additional complexity of these decisions may result in poorer financial quality. To address these concerns, I include control variables for mergers of a company (*merger*), an indicator variable taking the value of one if there is a merger in year *t*, and change (increase or decrease) in segments (*Δsegment*), an indicator variable taking the value of one if there is a change in the number of segments in year *t*. I predict both variables will have negative and significant coefficients indicating lower audit quality for a merger or additional segments.

When a company relocates its headquarters, it may incur unusual expenses. These expenses are present on the financial statement as a restructuring expense or a special item on the income statement. To ensure that workplace disruptions are correlated with poor financial reporting and not recording these specific expenses, I include dummy variables of if the company has incurred a restructuring expense (*restructuring*) or special item (*special item*) in all analyses.

Table 3 Company Relocation Statistics Compared to Prior Year

Table 3 displays the difference in means of all sample statistics for relocators before and after relocation. Panel A displays the difference in means of all sample statistics for relocators before and after relocation for all relocators. Panel B displays the difference in means of all sample statistics for relocators before and after relocation for all relocators moving more than 100 km. A t-test assesses the differences in means across the subsamples. Variable definitions are provided in Appendix A. Significance levels are * 10%, ** 5%, and *** 1%, based on two-tailed tests.

Panel A Statistics For Year Prior and Year of Relocation for All Relocating Companies

	Variables	Prior to year of relocation	Relocation year	t-stat	P value
Labor Market Variables	<i>educate</i>	0.28	0.28	-0.17	0.86
	<i>ln_pop</i>	13.05	13.09	-0.91	0.36
Relocation Control Variables	<i>chg_executive</i>	0.36	0.36	-0.46	0.64
	<i>sec_reg_off</i>	0.34	0.33	0.46	0.65
	<i>merger</i>	0.30	0.30	-0.12	0.90
	<i>segments</i>	3.98	4.01	-0.25	0.80
	<i>Δsegment</i>	0.06	0.06	0.90	0.37
	<i>restructure</i>	1.00	1.00	-0.80	0.42
	<i>special item</i>	0.67	0.68	-0.52	0.61

n=2160

Panel B Statistics for year prior and year of relocation for companies relocating greater than 100km

	Variables	Prior to year of relocation	Relocation year	t-stat	P value
Labor Market Variables	<i>educate</i>	0.28	0.27	1.04	0.30
	<i>ln_pop</i>	13.08	13.04	0.57	0.57
Relocation Control Variables	<i>chg_executive</i>	0.36	0.38	-1.19	0.23
	<i>sec_reg_off</i>	0.34	0.29	2.58***	0.01
	<i>merger</i>	0.30	0.28	0.78	0.44
	<i>segments</i>	3.98	4.08	-0.64	0.52
	<i>Δsegment</i>	0.06	0.07	-1.02	0.31
	<i>restructure</i>	1.00	1.00	-0.90	0.37
	<i>special item</i>	0.67	0.70	-1.13	0.26

n=694

Table 3 shows the difference in means of the relocation controls described above between the year of relocation and the year prior for all relocators and those companies that relocated headquarters 100 kilometers or greater. While there are some changes between the averages, there is no statistical difference between the prior year's relocation control variable averages and the year of relocation. These findings indicate that even though specific reasons for relocating headquarters drive the decision, there is no indication that these factors impact financial reporting quality in a material way. Nevertheless, I include these factors in my design for testing all hypotheses.

Additionally, Table 4 shows reports with Pearson (Spearman) correlations for relocation and control variables. While the variable for relocating companies (*move*, *move*<100km, *move*>100km) are significantly correlated with most of the controls used to identify confounding factors between relocation and financial reporting quality, the variables are correlated under 20% alleviating multicollinearity concerns.

A change in the headquarters location may also lead to a change in auditor distance. As discussed earlier in this study, a more considerable distance between auditor and client is associated with lower financial reporting quality (Choi et al., 2012). Table 2 Panel B shows the median distance between the client and the auditor (*Auditor distance*) non-relocating companies is approximately 8 kilometers (70 kilometers mean) compared to 11 kilometers (181 kilometers mean) for all companies that relocate headquarters. However, companies that move greater than 100 kilometers have a median distance from their auditor of 350 kilometers (122 kilometers mean). The negative effect associated with relocating corporate headquarters may stem from the increased distance from the auditor. To control for auditor distance, I follow Choi et al. 2012 and include two variables for auditor distance. The variable *auditor_100km* takes the value of one if

Table 4 Correlation Table

Table 4 shows reports with Pearson (Spearman) correlations for relocation and control variables. See Appendix A for variable definitions. Significance levels * 10%, ** 5%, and *** 1%.

	<i>move</i>	<i>move < 100km</i>	<i>move > 100km</i>	<i>educate</i>	<i>ln_pop</i>	<i>chg_executive</i>	<i>sec_reg_off</i>	<i>merger</i>	<i>segments</i>	Δ <i>segments</i>	<i>restructure</i>	
Test Variables	<i>move</i>	1.00										
	<i>move < 100km</i>	0.82***	1.00									
	<i>move > 100km</i>	0.55***	-0.03***	1.00								
Labor Market Variables	<i>educate</i>	-0.01*	-0.01	-0.01	1.00							
	<i>ln_pop</i>	-0.01**	-0.01	-0.01*	0.65***	1.00						
Relocation Control Variables	<i>chg_executive</i>	-0.00	-0.00	-0.00	0.01*	0.02***	1.00					
	<i>sec_reg_off</i>	-0.00	0.01	-0.01*	0.02***	-0.22***	-0.00	1.00				
	<i>merger</i>	-0.02***	-0.01*	-0.02**	-0.01**	-0.01	0.00	0.03***	1.00			
	<i>segments</i>	-0.00	-0.00	0.00	-0.02***	-0.03***	0.02***	-0.01	0.07***	1.00		
	Δ <i>segment</i>	0.01	-0.00	0.01*	-0.03***	-0.00	0.01	-0.01	0.00	0.27***	1.00	
	<i>restructure</i>	-0.00	-0.00	0.00	-0.03***	-0.04***	0.00	0.07***	0.16***	0.14***	0.02**	1.00
	<i>special item</i>	0.02**	0.01*	0.01*	-0.01	-0.02***	0.01	0.04***	0.20***	0.10***	0.03***	0.44***

the company's zip code is greater than 100 kilometers from the auditor's zip code and zero otherwise. I predict *that auditor_100km will have a positive and significant coefficient indicating that a longer distance between auditor and company negatively impacts financial reporting quality*. The variable *local_audit* takes the value of one if the company's metro-statistical area (MSA) is the same as their auditor's MSA. I predict a negative and significant coefficient indicating a local auditor positively impacts financial reporting quality.

Prior research also finds that the key factors to relocating headquarters are cost savings and expansion of facilities (Strauss-Khan and Vives 2009). These factors, among others influencing the decision to relocate headquarters, impact the company's long-term strategic plan, including financial reporting. On the other hand, the unfamiliarity associated with a workplace disruption will primarily affect the year of the relocation. While it is impossible to control for all the factors related to corporate relocations and their effect on financial reporting, it is possible to examine the short-term impact of workplace disruption compared to the long-term impact of the factors causing the relocation of a headquarters. For this study, the negative effect of workplace disruption will be significant in the first year and not as strong in years post-relocation as employees become more familiar with new processes and other changes stemming from corporate headquarter relocations and years before relocation as the company is not fully incurring disruptions related to the relocation. To verify the findings of my study are due to the workplace disruption and not unobserved correlated variables, I perform all tests of financial reporting quality in the year of the move (year t) and in years $t+1$, $t+2$, $t+3$, as well as $t-1$, and $t-2$. If the negative effect is caused by the workplace disruption, then there will be a positive and significant coefficient on the variable for relocation in year t and will become less significant further from the year of relocation in year $t+1$ through year $t+3$ and years $t-1$ and $t-2$.

Design

To capture financial reporting quality (*FRQ*), I use restatements, both total (*restate*) and material restatements (*material_restate*). *Restate* equals one if the client subsequently restated their financial statements using either a 4.02 restatement or in the absence of a 4.02 restatement (i.e., big or little r). In addition, I use the absolute value of discretionary accruals (*accruals*) to proxy for a client's accounting quality, i.e., higher values of *accruals* imply lower accounting quality. Both measures of restatements' binary nature capture whether a financial reporting error occurred, whereas accruals provide a continuous measure of financial reporting quality. I use my sample to estimate the following equation using an ordinary least squares model:

$$FRQ_{i,t} = \beta_1 move_{i,t} + \beta_2 audit\ controls_{i,t} + \beta_3 labor\ market\ controls_{i,t} + \beta_4 relocation\ control\ variables_{i,t} + \beta_5 control\ variables_{i,t} + \varepsilon_{i,t} \quad (1)$$

The variable of interest for this study is *move*. This variable is a dummy variable equal to one when the company relocates headquarters. I also perform the analysis using two variables for relocation. The first variable takes the value of one when companies relocate their headquarters under 100 kilometers (*move<100km*). The other variable takes the value of one when a company relocates over 100 kilometers (*move>100km*). I predict the variable will have a negative and significant coefficient for all analyses indicating low financial reporting quality when corporations relocate.

To test my second hypothesis, I examine how expert auditors can affect financial reporting quality during a workplace disruption, I estimate the following regression:

$$FRQ_{i,t} = \beta_1 move_{i,t} + \beta_2 moveXexp_{i,t} + \beta_3 exp_{i,t} + \beta_4 audit\ controls_{i,t} + \beta_5 labor\ market\ controls_{i,t} + \beta_6 relocation\ control\ variables_{i,t} + \beta_7 control\ variables_{i,t} + \varepsilon_{i,t} \quad (2)$$

Exp is one of two variables measuring the expertise of the auditor, *office_size*, or *expert*. I measure the variable *office_size* by using the total audit fees of the audit office in the current year (Francis and Yu 2009). *Expert* is a dummy variable taking the value of one if 30% of the audit office fees come from clients in the same industry as the company in a given year (Reichelt and Wang 2010). I interact the *move* variables in equation (1) with the variables of *exp*. I predict the coefficient of interactions to be negative and significant. This result will provide evidence that auditor expertise can alleviate some of the disruption in information flow from the company to the auditor. Table 2 Panel A and Panel B display the sample means for both expert variables. Relocating companies are audited by smaller offices and are less likely to be audited by an industry expert compared to non-relocating companies.

Finally, to test my third hypothesis on switching audit offices or maintaining offices during a relocation, I estimate the following model:

$$FRQ_{i,t} = \beta_1 move_{i,t} + \beta_2 \Delta Auditor_{i,t} + \beta_3 \Delta Office_{i,t} + \beta_4 \Delta Auditor \times move_{i,t} + \beta_5 \Delta Office \times move_{i,t} + \beta_6 audit\ controls_{i,t} + \beta_7 labor\ market\ controls_{i,t} + \beta_8 relocation\ control\ variables_{i,t} + \beta_9 control\ variables_{i,t} + \varepsilon_{i,t} \quad (3)$$

I create two binary variables using Audit Analytics auditor change data. The first variable, $\Delta Auditor$, takes the value of one if the company switches audit firms and to an audit office closer to the company's headquarters, else zero. Table 2 Panel A and Panel B display the sample means for the variable $\Delta Auditor$. Relocating companies switch their auditor more frequently than non-relocators (9% for all relocators compared to 7% for non-relocators). The other switching variable, $\Delta Office$, takes the value of one when a company switches to an audit office within the same firm that is closer to the relocated headquarters. Once again, Table 2 Panel A and Panel B display the sample means for the variable $\Delta Office$. Relocating companies change their audit office within-firm at a higher rate than non-relocators (7% for all relocators compared

to 2% for non-relocators). I interact these two variables with the relocation variables to indicate if a company that relocated offices switched auditors. The interaction variable will have a negative and significant coefficient if the local auditor improves financial reporting quality with a better communication channel. On the other hand, if retaining the auditor in the prior location improves financial reporting quality, the coefficient will be positive and significant.

I also perform an f-test to evaluate if expert auditors and switching auditors can fully or partially offset the negative effects of relocating headquarters. I test if the interactions in equation (2) (*move X office_size* and *move X expert*) and equation (3) (*Δ Auditor X move* and *Δ Office X move*) plus the main effect of the variable *move* are different from zero.

In addition to relocation controls, I include control variables for audit quality and financial reporting quality as identified by prior research. Table 2 Panel A presents descriptive statistics for control variables and dependent variables. For additional variable definitions, see Appendix A. I also include year, audit firm, and Fama French 12 industry group fixed effects, cluster standard errors at the company level, and winsorize all continuous variables at the 1st and 99th percentiles to limit the influence of outliers in the specifications.

IV. RESULTS

Multivariate Tests of Hypothesis 1

Table 5 Panel A reports the results estimating equation (1) where the dependent variables are *restate*, *material_restate*, and *accruals*. The variable of interest is *move*. Column (1) shows a significant and coefficient for the dependent variable *restate* (coefficient = 0.023, t-statistic = 3.33, significant at the $p < 0.01$ level). This finding indicates there is a higher propensity for restatements when a company relocates its headquarters. The coefficients for in column (2) where the dependent variable is *material_restate* and column (3) *accruals* are also significant

and positive (coefficient = 0.013, t-statistic = 2.53, significant at the $p < 0.05$ level and coefficient = 0.034 t-statistic = 1.70, significant at the $p < 0.10$ level respectively). The results indicate that relocate headquarters are 2.3% more likely to issue a restatement and 1.3% more likely to issue a material restatement. Additionally, on average, accruals increase 5% when there is a workplace relocation. Overall, companies relocating headquarters are associated with a higher propensity for material restatements and poorer accruals quality.

Next, I examine the alternative workplace disruption measures, *move<100km* and *move>100km*, by estimating equation (1) in Table 5 panel B. Table 5 panel B shows similar results to Table 5 panel A. For companies that relocate headquarters under 100 kilometers (*move<100km*) the coefficients for the dependent variables of *restate*, Column (1), and *material_restate*, Column (2) are positive and significant (coefficient = 0.015, t-statistic = 1.87, significant at the $p < 0.10$ level and coefficient = 0.011, t-statistic = 1.85, significant at the $p < 0.10$ level respectively). The coefficient of *move<100km* for the dependent variable of *accruals* is positive but not significant. Companies that relocate under 100 kilometers have a 1.5% and a 1.1% higher likelihood of issuing a restatement and a material restatement, respectively. Overall, there is evidence that companies relocating under 100 kilometers are associated with lower financial reporting quality.

The coefficients for companies that relocate headquarters greater than 100 kilometers (*move>100 km*) are positive and significant for all three financial reporting variables (coefficient = 0.041, t-statistic = 3.32, significant at the $p < 0.01$ level for *restate*, coefficient = 0.16, t-statistic = 1.86, significant at the $p < 0.10$ level for *material_restate*, and coefficient = 0.077, t-statistic = 2.16, significant at the $p < 0.05$ level for *accruals*). These results indicate that companies that relocate over 100 kilometers have a 4.1% higher likelihood of issuing a restatement but only a

Table 5 Company Relocation and Financial Reporting Quality

Panel A and B use three measures of financial reporting quality as the dependent variable: restatements, material restatements, and accruals to test the model below in OLS. Panel A reports headquarter relocation indicator variable (*move*) as the variable of interest. Panel B reports the OLS model below with two variables of interest, one an indicator variable if a headquarters was relocated by a distance less than 100 km (*move<100km*) and another indicator variable set to one if a company has relocated to a distance at or greater than 100 km (*move>100km*). See Appendix A for other variable definitions. I estimate the equation below using OLS and report two-sided t-stats in parentheses. Significance levels * 10%, ** 5%, and *** 1%.

$$FRQ_{i,t} = \beta_1 move_{i,t} + \beta_2 audit\ controls_{i,t} + \beta_3 labor\ market\ controls_{i,t} + \beta_4 relocation\ control\ variables_{i,t} + \beta_5 control\ variables_{i,t} + \varepsilon_{i,t}$$

Panel A Financial Reporting Quality and Corporate Relocation

		<i>restate</i> (1)	<i>material_restate</i> (2)	<i>accruals</i> (3)
Test Variables				
	<i>move<100km</i>	0.015* (1.87)	0.011* (1.85)	0.016 (0.66)
	<i>move>100km</i>	0.041*** (3.32)	0.016* (1.86)	0.077** (2.16)
Labor Market Variables				
	<i>educate</i>	0.104*** (3.05)	0.063** (2.56)	0.021 (0.22)
	<i>ln_pop</i>	-0.003* (-1.82)	-0.001 (-0.96)	0.003 (0.56)
Relocation Control Variables				
	<i>chg_executive</i>	-0.108 (-0.79)	-0.039 (-0.39)	0.073 (0.18)
	<i>sec_reg_off</i>	0.013*** (3.08)	-0.000 (-0.02)	-0.021* (-1.68)
	<i>Merger</i>	0.012*** (3.09)	0.003 (1.14)	-0.017 (-1.51)
	<i>segments</i>	0.002*** (3.55)	0.001 (1.46)	0.003* (1.67)
	<i>chg_segments</i>	0.001 (0.09)	-0.003 (-0.40)	0.096*** (3.13)
	<i>restructure</i>	0.001 (0.25)	-0.003 (-0.95)	0.009 (0.75)
	<i>special item</i>	0.010** (2.46)	0.006** (2.22)	0.013 (1.12)
Audit Quality Control variables and other Control Variables		Yes	Yes	Yes
Fixed Effects	Industry	Yes	Yes	Yes
	Year	Yes	Yes	Yes
	Audit firm	Yes	Yes	Yes
	N	36520	36520	36520
	R-sq	4.30%	4.40%	15.40%

Panel B Financial Reporting Quality and Corporate Relocation over 100 KM

		<i>restate</i> (1)	<i>material_restate</i> (2)	<i>accruals</i> (3)
Test Variables	<i>move<100km</i>	0.015* (1.87)	0.011* (1.85)	0.016 (0.66)
	<i>move>100km</i>	0.041*** (3.32)	0.016* (1.86)	0.077** (2.16)
Labor Market Variables	<i>Educate</i>	0.104*** (3.05)	0.063** (2.56)	0.021 (0.22)
	<i>ln_pop</i>	-0.003* (-1.82)	-0.001 (-0.96)	0.003 (0.56)
Relocation Control Variables	<i>chg_executive</i>	-0.108 (-0.79)	-0.039 (-0.39)	0.073 (0.18)
	<i>sec_reg_off</i>	0.013*** (3.08)	-0.000 (-0.02)	-0.021* (-1.68)
	<i>merger</i>	0.012*** (3.09)	0.003 (1.14)	-0.017 (-1.51)
	<i>segments</i>	0.002*** (3.55)	0.001 (1.46)	0.003* (1.67)
	<i>Δsegments</i>	0.001 (0.09)	-0.003 (-0.40)	0.096*** (3.13)
	<i>restructure</i>	0.001 (0.25)	-0.003 (-0.95)	0.009 (0.75)
	<i>special item</i>	0.010** (2.46)	0.006** (2.22)	0.013 (1.12)
	Audit Quality Control variables and other Control Variables	Yes	Yes	Yes
Fixed Effects	Industry	Yes	Yes	Yes
	Year	Yes	Yes	Yes
	Audit firm	Yes	Yes	Yes
	N	36,520	36,520	36,520
	R-sq	4.30%	4.40%	15.40%

1.6% higher likelihood of issuing a material restatement. Additionally, on average, there is an 11.6% increase in the number of accruals when a company relocates over 100 kilometers. Overall, the results of Table 5 are consistent H1 workplace disruptions are associated with negative financial reporting.

Multivariate Tests of Hypothesis 2

For the testing of H2, I estimate equation (2) with the same variables of financial reporting quality I use in equation (1). To examine whether expert auditors are able to mitigate the negative effect of workplace disruptions, I interact the measures of auditor experience, *office_size*, and *expert*, with the relocation variable of *move*. In Table 6 panel A, the interaction of *move**X**office_size* has a negative and significant coefficient for the dependent variable *accruals* (coefficient = -0.005, t-statistic = -2.04, significant at the $p < 0.05$ level in Column (2)). This result indicates that companies that relocate headquarters with an auditor from a large audit office see only a .8% decrease in the number of accruals. However, the coefficients in columns (1) and (3) are neither negative nor significant. Columns (2), (4), and (6) display the results of equation (2) with the interaction of *move**x**expert*. The coefficients of the interaction variable are negative and significant with the dependent variables *restate* and *material_restate* (coefficient = -0.037 t-statistic = -2.22, p-value < 0.05 in column (1) and coefficient = -0.021 t-statistic = -1.72, p-value < 0.10 in column (2)). These results indicate that companies that relocate but retain an expert auditor have a 3.7% lower probability of issuing a restatement and a 2.1% lower probability of issuing a material restatement. However, the interaction variable is not significant for the dependent variable *accruals*. Overall, Table 6 panel A results provide some evidence that auditor experience can mitigate the negative impact of workplace disruptions.

I also perform f-tests of whether an auditor's experience partially or fully offsets the poor financial reporting quality associated with the variable for *move*. If $move \times office_size + move = 0$

Table 6: Corporate Headquarter Relocation Interacted with Auditor Expertise

Panels A and B use three measures of financial reporting quality as the dependent variable: restatements, material restatements, and accruals to test the model below in OLS. Panel A features an indicator variable if a company has relocated its headquarters in the current year (*move*). Panel B reports the OLS model below with two variables of interest, one an indicator variable if a headquarters was relocated by a distance less than 100 km (*move<100km*) and another indicator variable set to one if a company has relocated to a distance at or greater than 100 km (*move>100km*). There are two proxies used to measure auditor expertise: *office_size* measured by the log of total audit fees for the office of the auditor of the company and *expert*, a dummy variable taking the value of one if the audit office 30% of its fees from a single industry in the given year, else zero (see Appendix A for other variable definitions). I separate the analysis across the columns by type of when the expertise variable interacts with the relocation variable. The variable *office_size* is reported in Columns (1), (2), and (5), and industry expert is reported in Columns (2), (4), and (6). T-stats are reported as two-sided; significance levels are * 10%, ** 5% and *** 1%; t-stats are in parentheses.

$$DV_{i,t} = \beta_1 Move_{i,t} + \beta_2 Move \times Expi_{i,t} + \beta_3 Expti_{i,t} + \beta_4 Audit\ Controls_{i,t} + \beta_5 Labor\ Market\ Controls_{i,t} + \beta_6 Relocation\ Control\ Variables_{i,t} + \beta_7 Control\ Variables_{i,t} + \epsilon_{i,t}$$

Panel A Financial Reporting Quality and Company Relocations Interacted with Auditor Expertise

		<i>Restate</i>		<i>material_restate</i>		<i>accruals</i>	
		(1)	(2)	(3)	(4)	(5)	(6)
	<i>move</i> × <i>office_size</i>	0.002 (0.75)		0.001 (0.48)		-0.005** (-2.04)	
	<i>move</i> × <i>expert</i>		-0.037** (-2.22)		-0.021* (-1.72)		-0.038 (-0.78)
Test Variables	<i>move</i>	-0.010 (-0.23)	0.015* (1.94)	-0.003 (-0.09)	0.015** (2.40)	0.086** (2.34)	0.071** (2.04)
	<i>office_size</i>	-0.011*** (-5.91)	-0.011*** (-5.89)	-0.004*** (-2.92)	-0.004*** (-2.91)	0.005*** (3.03)	0.004*** (2.84)
	<i>expert</i>	-0.013** (-2.13)	-0.003* (-1.84)	0.003 (0.74)	-0.000 (-0.02)	-0.007 (-1.33)	0.013** (2.29)
Labor Market, Relocation, Audit, and other Control Variables		Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Industry	Yes	Yes	Yes	Yes	Yes	Yes
	Year	Yes	Yes	Yes	Yes	Yes	Yes
	Audit firm	Yes	Yes	Yes	Yes	Yes	Yes
	N	36,520	36,520	36,520	36,520	36,520	36,520
	R-sq	4.30%	4.30%	4.40%	4.40%	15.40%	15.40%
F-Test of expertise offsetting relocation	<i>move</i> × <i>office_size</i> + <i>move</i> = 0					11.81***	
	<i>move</i> × <i>expert</i> + <i>move</i> = 0	12.41***		7.30***			

Panel B: Financial reporting quality and company relocations over 100km interacted with auditor expertise

		<i>restate</i>		<i>material_restate</i>		<i>accruals</i>		
		(1)	(2)	(3)	(4)	(5)	(6)	
Test Variables	<i>move< 100km x office_size</i>	-0.033 (-0.61)		-0.003 (-1.11)		0.007 (0.40)		
	<i>move>100km x office_size</i>	-0.004 (-0.06)		-0.008** (-2.07)		-0.047*** (-3.18)		
	<i>move<100km x expert</i>		0.007 (0.72)		0.006 (0.85)		-0.010 (-0.17)	
	<i>move>100km x expert</i>		0.037 (1.19)		0.013 (1.37)		-0.159* (-1.74)	
	<i>move<100km</i>	0.003 (0.89)	0.039** (1.98)	0.062 (1.37)	0.023* (1.65)	0.109 (0.67)	0.014 (1.24)	
	<i>move>100km</i>	0.003 (0.60)	0.033** (2.48)	0.138** (2.23)	0.015 (0.69)	0.723*** (3.23)	0.016** (2.09)	
	<i>office size</i>	-0.011*** (-4.30)	-0.011*** (-5.87)	0.003 (0.57)	-0.004*** (-2.90)	-0.007 (-1.10)	0.013** (2.27)	
	<i>expert</i>	-0.013 (-1.57)	-0.015** (-2.41)	-0.004** (-2.08)	0.002 (0.50)	0.013 (0.89)	-0.024 (-1.34)	
	Labor Market, Relocation, Audit, and other Control Variables		Yes	Yes	Yes	Yes	Yes	Yes
	Fixed Effects	Industry	Yes	Yes	Yes	Yes	Yes	Yes
Year		Yes	Yes	Yes	Yes	Yes	Yes	
Audit firm		Yes	Yes	Yes	Yes	Yes	Yes	
F-Test of expertise offsetting relocation	N	36,520	36,520	36,520	36,520	36,520	36,520	
	R-sq	0.043	0.043	0.044	0.044	0.154	0.154	
	<i>move>100km x office_size + move>100km =0</i>			2.43**		3.59**		
	<i>move>100km x expert + move>100km =0</i>						.76*	

($move \times expert + move = 0$), then auditor experience will fully offset the poor financial reporting quality associated with relocating headquarters. If not, then experience only partially offsets the poor financial quality associated with relocating headquarters. Results of the f-test in columns (2) and (4) indicate the sum is positive ($p < 0.01$), such that auditor industry expertise does not fully offset the negative effects of *move*. Likewise, results in column (5) indicate the sum is positive ($p < 0.01$), such that auditor *office_size* does not fully offset the negative effects of *move*. These results are consistent with H2 that experience improves the financial reporting quality but cannot fully compensate for the negative impact on financial reporting quality associated with the relocation of headquarters. While the auditor may be able to use their expertise to overcome certain aspects of the negative effects of a workplace relocation, the extent an auditor's expertise can benefit audit quality is limited to what the auditor has experienced in their career to develop their expertise. As a result, the auditor can only mitigate the negative effects of a workplace relocation if the auditor has expertise in overcoming these challenges before. Therefore, auditor expertise may not mitigate any idiosyncratic issues stemming from the relocation, causing a partially mitigated result.

Table 6 Panel B provides the results of equation (2) with the alternative variables of workplace disruptions that partition whether the corporation has relocated headquarters with a distance less than or greater than 100 kilometers ($move < 100km$ and $move > 100km$). $Move < 100km$ interacted with office size does not have significant, positive coefficients with any financial statement quality variables. However, unlike Table 5 panel A, panel B finds there is a negative and significant coefficient with the interaction variable $move > 100km \times office_size$ when the dependent variable is *accruals* (coefficient = -0.047 t-statistic = -3.18, p-value < 0.01 in column (5)). Additionally, there is a negative and significant coefficient on the interaction

variable $move > 100km \times office_size$ on the dependent variable for $material_restate$ (coefficient = -0.008 t-statistic = -2.07, p-value < 0.05 in column (3)). The f-test of $move > 100km \times office_size + move > 100km = 0$ is positive (p < 0.05), such that auditor office size does not offset the negative effects of $move > 100km$ for either $accruals$ or $material_restate$. The interaction variables for $move < 100km \times office_size$, $move < 100km \times expert$, $move > 100km \times office_size$, and $move < 100km \times expert$ are not significant with the dependent variable $restate$. Additionally, when the dependent variable is $accruals$, there is a negative and significant coefficient when the variable $move > 100km$ is interacted with $expert$ (coefficient = -0.159 t-statistic = -1.74, p-value < 0.10 in column (6)). The f-test of $move > 100km \times expert + move > 100km = 0$ is positive (p < 0.10) for $accruals$ as the dependent variable, such that auditor office size does not offset the negative effects of $move > 100km$ for either $accruals$. The results from Table 6 Panel B indicate there is limited evidence that auditor experience mitigates the negative impact of company headquarters relocations greater than 100 km. The likelihood of material restatement decreases by 0.8% if the relocating company has an expert auditor, and the reduction in the number of accruals is approximately 7% when a larger office audits a relocating company. Overall, the findings for the test of H2 provide some evidence that auditors with more experience, on average, can partially mitigate the negative effects of workplace disruptions when the company has moved over 100 kilometers.

Table 7 Corporate Headquarter Relocation Interacted with Auditor Switching

Panels A and B use three measures of financial reporting quality as the dependent variable: restatements, material restatements, and accruals to test the model below in OLS. Panel A features an indicator variable if a company has relocated its headquarters in the current year (*move*). Panel B reports the OLS model below with two variables of interest, one an indicator variable if a headquarters was relocated by a distance less than 100 km (*move<100km*) and another indicator variable set to one if a company has relocated to a distance at or greater than 100 km (*move>100km*). There are two proxies used to measure auditor switching: Δ Auditor, A dummy variable taking the value of one if the company has switches audit firms from the prior year, else zero and Δ Office, A dummy variable taking the value of one if the company switches audit offices but maintains the same audit firm from the prior year, else zero (see Appendix A for other variable definitions). T-stats are reported as two-sided; significance levels are * 10%, ** 5% and *** 1%; t-stats are in parentheses.

Panel A Financial Reporting Quality and Company Relocations Interacted with Auditor Switching

		<i>restate</i>	<i>material_</i> <i>restate</i>	<i>accruals</i>
		(1)	(2)	(3)
Test Variables	<i>Δ Auditor X move</i>	0.035 (1.17)	0.043** (1.98)	-0.017 (-0.69)
	<i>Δ Office X move</i>	0.071 (1.35)	0.006 (0.16)	-0.085** (-1.97)
	<i>Move</i>	0.020*** (2.80)	0.010** (1.97)	0.014** (2.43)
	<i>Δ Auditor</i>	-0.015** (-2.18)	-0.013*** (-2.75)	-0.001 (-0.07)
	<i>Δ Office</i>	0.019* (1.81)	0.005 (0.70)	-0.076** (-2.42)
	Labor Market, Relocation, Audit and other Control			
Fixed Effects	Variables	Yes	Yes	Yes
	Industry	Yes	Yes	Yes
	Year	Yes	Yes	Yes
	Audit firm	Yes	Yes	Yes
	N	36,520	36,520	36,520
	R-sq	4.30%	4.40%	15.40%
F-Test of expertise offsetting relocation	Δ Office x move + move=0			84.15***

Panel B Financial Reporting Quality and Company Relocations Over 100km Interacted With Auditor Switching

		<i>restate</i>	<i>material_</i> <i>restate</i>	<i>accruals</i>	
		(1)	(2)	(3)	
Test Variables	<i>move<100km x Δ Auditor</i>	0.044 (1.31)	0.057** (2.34)	0.102 (1.02)	
	<i>move<100km x Δ Office</i>	0.105* (1.80)	0.030 (0.71)	0.051 (0.29)	
	<i>move>100km x Δ Auditor</i>	0.015 (0.24)	-0.005 (-0.11)	-0.228 (-0.66)	
	<i>move>100km x Δ Office</i>	-0.049 (-0.42)	-0.085 (-1.01)	-0.048*** (-2.60)	
	<i>move<100km</i>	0.011 (1.25)	0.007 (1.11)	-0.011 (-0.44)	
	<i>move>100km</i>	0.041*** (3.25)	0.018* (1.94)	0.069* (1.89)	
	<i>Δ Auditor</i>	-0.015** (-2.22)	-0.013*** (-2.76)	0.007 (0.34)	
	<i>Δ Office</i>	0.018* (1.72)	0.005 (0.65)	0.067** (2.16)	
	Audit Quality Control variables and other Control Variables		Yes	Yes	Yes
	Fixed Effects	Industry	Yes	Yes	Yes
Year		Yes	Yes	Yes	
Audit firm		Yes	Yes	Yes	
N		36,520	36,520	36,520	
R-sq		4.30%	4.40%	15.40%	
F-Test of expertise offsetting relocation	<i>move>100km x Δ Office+</i> <i>move>100km=0</i>			3.42*	

Multivariate Tests of Hypothesis 3

To test my final hypothesis, I estimate equation (3) in Table 7 Panel A where I interact the relocation variable *move* with $\Delta Auditor$ ($\Delta Auditor \times move$), representing corporations relocating headquarters and changing audit firms, and $\Delta Office$ ($\Delta Office \times move$), representing corporations relocating headquarters and switching to a local office audit office within the same audit firm. Column (1) and Column (2) with dependent variables of *restate* and *material_restate* show no significance for the variable *move* \times *office_switch*. Column (2) indicates there is a positive and significant coefficient on the interaction variable $\Delta Auditor \times move$ when the dependent variable is *material_restate* (coefficient= 0.043, t-statistic= 1.98 p-value <.05). This result is consistent with prior research claims that financial reporting is negatively impacted by switching auditors.

However, in column (3) with a dependent variable of accruals, there is a negative and significant coefficient for $\Delta Office \times move$ (coefficient = - 0.085, t-statistic = -3.39, significant at the p<0.05 level), indicating that corporations that switch to a local audit office within the prior year audit firm are associated with better financial reporting quality. I report an f-test of whether $\Delta Office \times move + move=0$. The f-test is positive (p< 0.10), such that changing audit offices within-firm does not fully mitigate offset the negative effects of *move*.

Table 7 Panel B examines the alternative measures of company relocation, *move*<100km and *move*>100km. In column (3) where dependent variable is accruals, the interaction variable *move*>100km \times $\Delta Office$ is negative and significant (coefficient = - 0.048, t-statistic = -2.60, significant at the p<0.01 level). I perform an f-test for the significant interaction variables where *move*>100km \times $\Delta Office + move$ >100km=0 . The f-test is positive (p< 0.10), such that changing audit offices within-firm does not fully mitigate the negative effects of *move*>100km. The

significance in the variable *accruals* in Table 6 Panel B for *move > 100 km* and not *move < 100 km* may be due to the increased distance from the original auditor resulting from relocating corporate headquarters. The observations of *move > 100 km* inherently create a distance between their new headquarters and their auditor. This distance will create communication and information transfer challenges. To overcome the issues created from this distance, the company can switch to an office closer to its headquarters within its current audit firm. Overall, unlike prior literature that indicates that switching audit offices negatively impacts financial reporting quality, I find limited evidence that switching audit offices within-firm during a workplace disruption mitigates the negative effects on financial reporting. These results are specifically present in companies that relocate over 100 kilometers.

V. ROBUSTNESS TESTS

Propensity Score Matching

I use propensity score matching (PSM) to mitigate concerns that omitted correlated variables associated with corporate relocation are driving the results. I match on potential determinants of headquarter relocation and location characteristics: level of education and population in the relocation area, if an executive has changed, if a merger has occurred, change in segments, restructuring expenses, and special items.⁵ I require a maximum caliper width of 0.10 for sufficient propensity score matches. I generate a matched sample of companies relocating headquarters and non-relocators. Table 8 Panel A displays a t-test for the means of the

⁵ Following Shipman et al. (2017), I match on a dichotomous variable (whether a company has relocated its headquarters) rather than parsing the sample based on a continuous variable. In addition, in untabulated results, I match based on different combinations of variables to ensure that the results are not driven by variable choices. Additionally, I match on the dichotomous variable of whether a company has relocated to an area more than 100 km away for its original location. Results are qualitatively similar across specifications.

Table 8 Non-Relocator versus Relocators Propensity Score Matching

Table 8 panel A displays the difference in means for the matched sample of all relocating companies and non-relocators. Panel B displays the difference in means for the matched sample of companies relocating over 100 km and non-relocators. I match the samples based on the level of education and population in the relocation area, if an executive has changed, if a merger has occurred, change in segments, restructuring expenses, special items, and size. I require a maximum caliper width of 0.10 for sufficient propensity score matches (see Appendix A for other variable definitions). T-stats are reported as two-sided; significance levels are * 10%, ** 5% and *** 1%; t-stats are in parentheses.

Panel A Non-Relocator versus All Relocators Propensity Score Matching

	Variables	Non-Relocators	Relocators	t-stat	P value
Dependent Variables	<i>restate</i>	0.09	0.13	-3.99***	0.00
	<i>material_restate</i>	0.05	0.07	-2.91***	0.00
	<i>accruals</i>	0.09	0.09	-2.69***	0.00
Labor Market Variables	<i>educate</i>	0.28	0.28	-0.03	0.97
	<i>ln_pop</i>	13.06	13.09	-0.60	0.55
Relocation Control Variables	<i>chg_executive</i>	0.37	0.36	0.38	0.70
	<i>sec_reg_off</i>	0.35	0.33	1.16	0.25
	<i>merger</i>	0.30	0.30	0.00	1.00
	<i>segments</i>	4.07	4.02	0.54	0.59
	<i>Δsegments</i>	0.06	0.06	0.59	0.56
	<i>restructure</i>	0.27	0.27	0.00	1.00
	<i>special item</i>	0.69	0.68	0.43	0.67
	N	2,152	2,152		

Panel B Non-Relocator versus All Relocators Propensity Score Matching

	Variables	Non-Relocators	Relocators	t-stat	P value
Dependent Variables	<i>restate</i>	0.11	0.15	-3.99***	0.00
	<i>material_restate</i>	0.05	0.08	-2.91***	0.00
	<i>accruals</i>	0.11	0.14	-2.69***	0.00
Labor Market Variables	<i>educate</i>	0.28	0.28	2.09	0.97
	<i>ln_pop</i>	13.18	13.05	1.81	0.55
Relocation Control Variables	<i>chg_executive</i>	0.40	0.38	0.66	0.70
	<i>sec_reg_off</i>	0.30	0.29	0.24	0.25
	<i>merger</i>	0.30	0.28	0.65	1.00
	<i>segments</i>	4.19	4.09	0.52	0.59
	<i>Δsegments</i>	0.06	0.07	-0.33	0.56
	<i>restructure</i>	0.30	0.28	0.89	1.00
	<i>special item</i>	0.70	0.70	0.18	0.67
	N	693	693		

match relocators and non-relocators. Table 8 Panel B shows a t-test for a matched sample of movers over 100 km.⁶ I achieve a covariate balance between the two samples. Mean differences between matching variables of the two samples are small and statistically insignificant. However, restatement frequency, material restatement frequency, and accrual size are significantly higher for relocating firms.

Table 9 panel A displays the regression analysis of equation (1) for the matched sample of all relocators. The coefficients for *restate* and *material_restate* are positive and significant with (coefficient = 0.034, t-statistic = 3.45, significant at the p<0.01 level and coefficient = 0.017, t-statistic = 2.28, significant at the p<0.05).

Table 9 PSM Sample Regression Analysis

Table 9 presents regression analysis for the propensity-matched sample for all relocators. Panel A displays analysis from regression (1) as a robustness test for my test of H1. Panel B displays the analysis for regression (2) as a robustness test for my test of H2, and Panel C displays the analysis for regression (3) as a robustness test for H3. I match the samples based on the level of education and population in the relocation area, if an executive has changed, if a merger has occurred, change in segments, restructuring expenses, special items, and size. I require a maximum caliper width of 0.10 for sufficient propensity score matches. (see Appendix A for other variable definitions). T-stats are reported as two-sided; significance levels are * 10%, ** 5% and *** 1%; t-stats are in parentheses.

Panel A PSM Sample: Company Relocation and Financial Reporting Quality

		<i>restate</i> (1)	<i>material_restate</i> (2)	<i>accruals</i> (3)
Test	<i>move</i>	0.034***	0.017**	0.012
Variables		(3.45)	(2.28)	(0.96)
Labor Market, Relocation, Audit, and other Control				
	Variables	Yes	Yes	Yes
Fixed Effects	Industry	Yes	Yes	Yes
	Year	Yes	Yes	Yes
	Audit firm	Yes	Yes	Yes
	N	4,304	4,304	4,304
	R-sq	6.10%	6.30%	16.20%

⁶ I remove all companies who have relocated under 100 km before matching with companies who have relocated headquarters over 100km in order to ensure a relocating company is not matched with another relocating company.

Panel B PSM Sample: Financial Reporting Quality and Company Relocations Interacted with Auditor Expertise

		<i>restate</i>		<i>material_restate</i>		<i>accruals</i>	
		(1)	(2)	(3)	(4)	(5)	(6)
	<i>moveXoffice_size</i>	-0.027*** (-2.90)		-0.002 (-0.80)		-0.004 (-0.55)	
	<i>moveXexpert</i>		-0.075*** (3.16)	-0.077*	(-1.92)		-0.010 (-0.35)
Test	<i>move</i>	0.472*** (3.03)	0.018* (1.66)	0.055 (1.14)	0.044** (2.06)	0.070 (0.60)	0.014 (1.01)
Variables	<i>office_size</i>	0.007 (0.59)	-0.009* (-1.70)	0.002 (0.37)	-0.008 (-0.73)	0.008 (0.98)	0.006 (0.87)
	<i>expert</i>	-0.008 (-0.24)	-0.058** (-2.51)	-0.003 (-0.24)	0.029 (0.77)	-0.012 (-0.98)	-0.007 (-0.24)
Labor Market, Relocation, Audit and other Control Variables		Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Industry	Yes	Yes	Yes	Yes	Yes	Yes
	Year	Yes	Yes	Yes	Yes	Yes	Yes
	Audit firm	Yes	Yes	Yes	Yes	Yes	Yes
	N	4,304	4,304	4,304	4,304	4,304	4,304
	R-sq	6.10%	6.30%	6.30%	6.40%	16.20%	16.20%
F-Test of expertise offsetting relocation	<i>moveXoffice_size</i> + <i>move</i> =0	9.03**					
	<i>moveXexpert</i> + <i>move</i> =0	3.49*		9.59***			

Panel C PSM Sample: Financial Reporting Quality and Company Relocations Interacted with Auditor Switching

		<i>restate</i>	<i>material_</i> <i>restate</i>	<i>accruals</i>
		(1)	(2)	(3)
	Δ Auditor X move	0.039 (1.06)	0.046* (1.67)	-0.012 (-0.09)
	Δ Office X move	0.059 (1.00)	0.006 (0.14)	-0.476** (-2.13)
Test Variables	<i>move</i>	0.031*** (3.08)	0.014* (1.89)	0.026 (0.69)
	Δ Auditor	-0.026 (-1.17)	-0.018 (-1.11)	0.015 (0.18)
	Δ Office	0.032 (1.22)	0.009 (0.47)	0.067 (0.68)
<hr/>				
Audit Quality Control variables and other Control Variables		Yes	Yes	Yes
Fixed Effects	Industry	Yes	Yes	Yes
	Year	Yes	Yes	Yes
	Audit firm	Yes	Yes	Yes
		N	4,304	4,304
		R-sq	6.10%	6.30%
			4,304	16.20%
F-Test of expertise offsetting relocation	<i>move</i> X <i>office_size</i> + <i>move</i> =0		3.74*	

Table 9 provides evidence that the poorer financial reporting quality for relocating companies is not just due to city-specific characteristics or relocation factors but rather due to the workplace disruption associated with corporate headquarter relocations.

Additionally, I use the matched samples to confirm my findings of H2, whether auditor experience can mitigate the negative effects of corporate headquarter relocation, and H3, if switching audit offices or audit firms can mitigate the negative effect of corporate headquarter relocation. Table 9 Panel B shows the results of the matched sample of relocators and non-relocators for equation (2) and the test of H2. Column (1) indicates there is a negative and

significant coefficient on the interaction variable *moveXoffice_size* (coefficient= -0.027, t-statistic= -2.90, significant at $p < 0.01$). I report an f-test of whether $move_office_size + move = 0$. The f-test is positive ($p < 0.10$), such that changing audit offices within-firm does not fully mitigate offset the negative effects of *move*. The interaction with the variable for relocating companies and industry expertise, *moveXexpert*, has a negative and significant coefficient when the dependent variable is *restate* or *material_restate* (coefficient= -0.075, t-statistic= -3.16, significant at $p < 0.01$ and coefficient= 0.077, t-statistic= -1.92, $p < 0.10$). Both f-tests is positive ($p < 0.10$ and $p < 0.01$ respectively), such that auditor office size does not offset the negative effects of *move*.⁷ Overall, the findings of the matched sample provide some evidence that experience partially mitigates the negative effect of workplace disruptions. These findings confirm the initial findings in the test of H2.

Table 9 Panel C presents the results of equation (3) and the test of H3, whether switching auditors can mitigate the negative effects of financial reporting using the matched sample. In column (2), there is a negative and significant coefficient for the interaction variable $\Delta Office \times move100$ with a dependent variable of *material_restate* (coefficient= -0.115 t-statistic -2.15, $p < 0.05$). The f-test is positive $p < 0.10$ such that switching audit offices within-firm does not offset the negative effects of *move*. Overall, the findings of the matched sample provide some evidence that switching audit offices within-firm partially mitigates the negative impact of workplace disruptions. These findings confirm the initial results in the test of H3.

⁷ In untabulated results I run equation (2) and (3) with the matched sample for relocating companies greater the 100 km. These results are consistent with the results in table 6 Panel B, and table 7 Panel B confirming the prior results of H2 and H3.

Auditor Tenure and Corporate Headquarter Relocation

Prior literature indicates that a long-tenured auditor is associated with better financial reporting due to the development of client-specific knowledge (Defond and Zhang 2012). It is possible that the longer-tenured auditors can use their client-specific knowledge to mitigate the negative effects of client relocation. The companies that change offices but retain their auditor may be benefiting from a longer-tenured auditor. To verify the results of Table 7 testing H3 are driven by the decision to switch audit offices and not solely extensive client-specific knowledge attained from a longer-tenured audit firm, in untabulated results, I interact the variable *tenure*, measured as the natural log of the number of years the incumbent auditor has served the client firm, with the relocation variables of *move* and *move100*. The interaction variable of tenure and headquarter relocation is not significant ($p > 0.10$) with the dependent variables for financial reporting quality. I replace the variable *tenure* with alternative variables of deciles, quintiles, and quartiles of auditor tenure. These alternative variables still provide no significance. Overall, there is no evidence that auditor tenure mitigates the negative effects of corporate headquarter relocation.

State Incentives of Relocation

Certain states and jurisdictions provide incentives to promote the relocation of companies to their location. These incentives may be tax credits, lower tax rates, and additional discretionary funding⁸. Some of these incentives may have an adverse effect on financial reporting. To mitigate concerns that specific state incentives may be driving the negative results of this study, I examine the distribution of relocating firms both from the state the company is leaving and the state the company is relocating. Table 10 presents the top 10 states companies

⁸ See appendix B for additional examples.

are leaving and relocating. There are 680 companies, or approximately 31% of all relocating companies, relocating to a different state in the sample. The state with the most companies leaving in the sample is New York. New York has 124 companies leaving its area, comprising 6% of the entire sample of relocators and 18% of companies relocating states. The state with the most companies relocating to their jurisdiction is Texas, with 81 companies relocating to the area, totaling 4% of the sample of relocators and 12% of the companies relocating states.

Table 10 Top Ten States Companies Relocate to and Leave From

State	Number moved to	% of total relocators	% of companies relocating states
NY	124	6%	18%
CA	87	4%	13%
TX	38	2%	6%
PA	32	1%	5%
NJ	30	1%	4%
IL	28	1%	4%
CO	25	1%	4%
MD	23	1%	3%
FL	22	1%	3%
NV	20	1%	3%

State	Number moved from	% of total movers	% of companies relocating states
TX	81	4%	12%
CA	72	3%	11%
NY	57	3%	8%
FL	50	2%	7%
NJ	48	2%	7%
VA	25	1%	4%
MA	25	1%	4%
GA	24	1%	4%
IL	24	1%	4%
CO	22	1%	3%

Total Relocators	2,160	State Relocators	680
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Table 11 Robustness Test

Table 11 displays regression analysis for equation (1). I use three measures of financial reporting quality as the dependent variable: restatements, material restatements, and accruals to test equation (1). I replace the variable move in year t for the company year observation t-1 in columns (1), (6), and (11) t-2 in columns (2), (7), and (12), t+1 in columns (3), (8), and (13) t+1 in columns (4), (9), and (13), t+2 in columns (5), (10), and (14) and t+3 in columns (6), (11), and (15) (see Appendix A for other variable definitions). T-stats are reported as two-sided; significance levels are * 10%, ** 5% and *** 1%; t-stats are in parentheses.

	restate					material_restate					accruals				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
move t-1	0.006 (0.44)					0.011* (1.84)					0.007 (0.82)				
move t-2		0.013 (0.89)					0.011 (1.57)					0.009 (1.01)			
move t+1			-0.001 (-0.17)					0.000 (0.06)					-0.006 (-0.67)		
move t+2				-0.003 (-0.40)					0.001 (0.21)					-0.002 (-0.26)	
move t+3					0.002 (0.29)					-0.004 (-0.64)					0.006 (0.67)
Labor Market, Relocation, Audit, and other Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Auditor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	N	36,520	36,520	36,520	36,520	36,520	36,520	36,520	36,520	36,520	36,520	36,520	36,520	36,520	36,520
	R-sq	4.30%	4.30%	4.30%	4.30%	4.30%	4.40%	4.40%	4.40%	4.40%	4.40%	15.40%	15.40%	15.40%	15.40%

The distribution of states relocating to and relocating from is fairly dispersed, indicating that one specific state incentive is not driving the results of this study. Nonetheless, in untabulated results, I run multiple regressions, removing relocating companies from each of the states listed in Table 10 to alleviate the concern that the effects of this study are driven by state incentives to relocate rather than workplace disruptions. Removing each state does not affect the significance or direction of the results of this study.

Test of Financial Reporting Quality Before and After Move

There are additional concerns of endogenous factors related to the decision to relocate that may drive the results of this paper. These factors and characteristics are incorporated in the company's long-term strategy and, therefore, should be associated with the company post-relocation. The negative effect of workplace disruptions on financial reporting quality should only be apparent in the year of the move as employees handle the disruptions associated with relocating. As employees become more familiar with the work environment, the adverse effects of workplace disruption will be less severe.

However, if the workplace disruption is causing the poor financial reporting quality in this study, the years prior to relocation will not be associated with as severe negative financial reporting quality. Therefore, if the years post-relocation and years pre-relocation are not associated with poor financial reporting quality, workplace disruptions are driving the results of this study and not endogenous factors related to the decision to relocate.

To verify the findings in H1 are associated with workplace disruption, I estimate equation (1) at t-1, t-2, t+1, and t+3 with the same dependent variables of *restate*, *material_restate*, and *accruals*. The variable of interest *move* is a binary variable of one if the company relocated in the prior year (columns (1), (4), and (7)), two years prior (columns (2), (5), and (8)), and three years prior (columns (3), (6), and (9)). Table 11 displays that all columns but column (6) have

insignificant coefficients for any dependent variables. Column (6) has a positive and significant coefficient with the dependent variable *material_restate* (coefficient = 0.011, t-statistic = 1.84, significant at the $p < 0.10$) for the year prior to relocation. While positive and significant, the coefficient is a lower magnitude and significance than the initial test of H1 reported in table 5 panel A (coefficient = 0.013, t-statistic = 2.53, significant at the $p < 0.01$). Overall, the results in H1 are associated with workplace disruption and not endogenous factors associated with the decision to relocate.

VI. CONCLUSION

This study examines the impact of workplace disruptions on financial reporting quality. A workplace disruption may result in employee turnover and for employees to take on new responsibilities. Additionally, this disruption may require changes in internal control procedures, causing a negative impact on financial reporting. I utilize the setting of corporate headquarters relocation to identify workplace disruptions. The results of the study are consistent with workplace disruptions having a negative impact on financial reporting quality. This effect is present in the year of the disruption but not in subsequent or prior years.

Additionally, this study examines how the external auditor can mitigate the negative effects workplace disruptions have on financial reporting. Workplace disruption will also impact the auditor as the auditor is a component of the financial reporting process. I find limited evidence that auditor experience partially mitigates workplace disruptions' adverse effects on financial reporting for companies that relocate to an area at or greater than 100 kilometers away.

Finally, I examine whether switching to a local auditor, either the same audit firm in a new office or a new audit firm with a new office location. Prior literature finds that switching to another audit office within the same audit firm negatively impacts audit quality (Hollingsworth

et al., 2020). Contrary to prior literature, I find limited evidence that workplace disruptions can be partially mitigated by switching to a local auditor within the same audit firm as the preceding year when a corporation relocates its headquarters, specifically when the company relocates headquarters over 100 kilometers.

Collectively, this study provides evidence that a physical workplace disruption negatively impacts financial reporting quality. Certain auditor traits may partially mitigate the negative impact. This study raises questions as to the costs corporations to incur when changing the workplace. This study is relevant given the ongoing evolving workplace. As companies relocate their personnel remotely and as the fallout continues from the workplace disruption caused by the Covid-19 pandemic, companies must identify the possible unintended consequences of financial reporting caused by workplace disruptions.

VII. APPENDENCIES

Appendix A Variable Definitions

	Variable	Definition
Test Variables	<i>move</i>	A variable equal to one if the company has relocated headquarters. This information is identified through the change in 10-K header data.
	<i>move<100km</i>	A variable equal to one if the company has relocated headquarters less than 100 kilometers (62 miles). This information is identified through the change in 10-K header data.
	<i>move>100km</i>	A variable equal to one if the company has relocated headquarters at or greater than 100 kilometers (62 miles). This information is identified through the change in 10-K header data.
Dependent Variables	<i>restate</i>	A dummy variable taking the value of one if a restatement occurred related to year t, else zero.
	<i>material_restate</i>	Incidence of material restatement from the prior year to the year of relocation.
	<i>accruals</i>	Absolute value of abnormal accruals, where abnormal accruals are obtained from the modified Jones (1991).
Distance	<i>Auditor distance</i>	Distance in kilometers between zip codes of the auditor's office and the company headquarters
Labor Market Variables	<i>educate</i>	five-year average educational attainment in a city is the fraction of the city's population over the age of 25 with at least a bachelor's degree. Data attained from U.S. Census Bureau's American Community Survey.
	<i>ln_pop</i>	Natural log of the population of the city in which the auditor is located. Population totals are obtained from the U.S. Census Bureau.
Relocation Control Variables	<i>chg_executive</i>	A dummy variable taking the value of one if there has been a CEO or CFO change at the company, else zero.
	<i>sec_reg_off</i>	Dummy variable taking the value of one if the company's office is in the same city as an SEC Regional Office and 0 otherwise.

	Variable	Definition
Relocation Control Variables	<i>merger</i>	Dummy variable taking the value of one if the company engaged in a merger in the current year and zero otherwise
	<i>segments</i>	Total company geographic and business segments
	Δ <i>segment</i>	Change in the amount of operating segments from the year before relocation to the year after relocation
	<i>restructure</i>	Dummy variable equal to 1 if there is a restructuring expense in the current year
	<i>special item</i>	Dummy variable equal to one if there is a special expense or revenue in the current year
Auditor Control Variables	<i>office_size</i>	The log of total audit fees for the office of the auditor of the company.
	<i>mkt_share</i>	Percentage of audit fees for the local auditors office compared to the total audit fees for all auditors within the MSA.
	<i>expert</i>	a dummy variable taking the value of one if the audit office 30% of its fees from a single industry in the given year, else zero.
	<i>influence</i>	The ratio of the client's annual fees for all services to the sum of annual fees for all clients of the engagement office.
	<i>auditor_100KM</i>	One if the distance between the audit office and the client firm's headquarters is more than 100 kilometers from the client firm's headquarter or and zero otherwise.
	<i>local_audit</i>	One if the audit office and the client firms' headquarters are located in the same MSA.
	<i>tenure</i>	Auditor tenure, measured as the natural log of the number of years the incumbent auditor has served the client firm.
	Δ <i>Auditor</i>	A dummy variable taking the value of one if the company has switches audit firms from the prior year, else zero
	Δ <i>Office</i>	A dummy variable taking the value of one if the company switches audit offices but maintains the same audit firm from the prior year, else zero

	Variable	Definition
Control Variables	<i>size</i>	The log of assets
	<i>foreign</i>	Proportion of total sales from foreign operations.
	<i>decye</i>	Dummy variable taking the value of one if the company has December year end, else zero
	<i>cfo</i>	Operating cash flows deflated by lagged total assets
	<i>roa</i>	Net income before extraordinary items divided by average total assets.
	<i>loss</i>	1 if <i>roa</i> , 0, and 0 otherwise.
	<i>leverage</i>	Ratio of debt to total assets
	<i>btm</i>	Natural log of the ratio of the market to book value of equity
	<i>mw</i>	The incidence of a material weakness
	<i>gc</i>	Incidence of a going concern opinion issued for the company
	<i>modop</i>	Incidence of a modified opinion issued for the company
	<i>accel_filer</i>	One if the company is an accelerated filer, else zero.

Appendix B

State Relocation Incentives

Below list a variety of states incentives for corporate relocation including liquidity accessibility and cost savings as described in Trade and Industry Development March 2016 issue:

- **Indiana** offers a credit against corporate income tax liability. The credit can be up to 50 percent of a corporation's approved costs in relocating to Indiana. Fifty million dollars in new investment and 75 new employees are required.
- **Mississippi** offers national and regional relocating headquarters between \$500 and \$2,000 per new job for a period up to five years.
- **South Carolina** has a 20 percent credit against corporate income liability, based on the cost of the portion of the facility dedicated to headquarters operation or direct lease costs for the first five years of operation.
- **Tennessee** provides a refundable tax credit for relocation expenses resulting from a move. The credit can be used to offset franchise or excise tax liability in the year earned. If liability is less than the credit, the difference is refunded in cash.
- **Florida's** discretionary grant funding may be available so long as 50 jobs are created in a three-year period and an investment of at least \$50 million is made.
- **West Virginia** offers a credit of up to 10 percent of the company's qualified investment to offset corporate income and business franchise tax liability for up to 13 years.
- **Wisconsin** provides a refundable business tax credit based upon a percentage of wages paid to eligible headquarter employees. In addition to reimbursement of up to 50 percent of training costs, the company can earn credits for up to three percent of capital investment in personal property and up to five percent investment in real property. A new investment of \$1 million is required.
- **Kentucky** provides income tax credits to both regional and national headquarter firms that can offset up to 100 percent of corporate tax liability.
- **Louisiana** provides a rebate of up to 25 percent of facilities and relocation costs over five years.

References

- Aobdia, D., P. Choudhary, and N. Newberger. 2021. The economics of audit production: What matters for audit quality? Working paper, Northwestern University, University of Arizona, and PCAOB.
- AICPA. 2020. Consequences of COVID-19 Potential Auditing Challenges. Durham, North Carolina
- Bazerman, M., G. Loewenstein, and D. Moore. 2002. Why good accountants do bad audits. *Harvard Business Review* 80: 97–102.
- Beck, M.J., Francis, J.R. and Gunn, J.L. 2018, Public Company Audits and City-Specific Labor Characteristics. *Contemporary Accounting Research*, 35: 394-433.
- Becker, G. S. 1993. Human Capital. 3rd edition. Chicago, IL: University of Chicago Press.
- Bills, K.L., Q.T. Swanquist, and R.L. Whited. 2016. Growing Pains: Audit Quality and Office Growth. *Contemporary Account Research*, 33: 288-313
- Cai, Y., Kim, Y., Park, J. C., & White, H. D. (2016). Common auditors in M&A transactions. *Journal of Accounting and Economics*, 61 (1), 77–99.
- Call, A. C., Campbell, J. L., Dhaliwal, D. S., & Moon Jr, J. R. (2017). Employee quality and financial reporting outcomes. *Journal of Accounting and Economics*, 64(1), 123-149.
- Carcello, J. V., R. H. Hermanson, and N. T. McGrath. 1992. Audit quality attributes: The perceptions of audit partners, preparers, and financial statement users. *Auditing: A Journal of Practice & Theory* 11 (1): 1–15.
- Chan, S.H., G.W. Gau, and K. Wang. 1995. Stock Market Reaction to Capital Investment Decisions: Evidence from Business Relocations. *The Journal of Financial and Quantitative Analysis* 30 (1): 81-100.
- Choi, J. H., J. B. Kim, A. Qiu, and Y. Zang. 2012. Geographic proximity between auditor and client: How does it impact audit quality? *Auditing: A Journal of Practice & Theory* 31 (2): 43–72.
- Craswell, A., J. Francis, and S. Taylor. 1995. Auditor brand name reputations and industry specializations. *Journal of Accounting and Economics* 1995. 20 (3): 297-322.
- Coval, J., and T. Moskowitz, 1999. Home bias at home: Local equity preference in domestic portfolios. *Journal of Finance* 54 (6): 2045–2073.
- Davis, L. R., B. S. Soo, and G. M. Trompeter. 2009. Auditor tenure and the ability to meet or beat earnings forecasts. *Contemporary Accounting Research* 26: 517–548.
- DeFond, M., and J. Zhang. 2014. A review of archival auditing research *Journal of Accounting & Economics* 58 (2-3):275-326.
- Deis, D. R., Jr., and G. A. Giroux. 1992. Determinants of audit quality in the public sector. *The Accounting Review* 67: 462–479.
- Dhaliwal, D.S., Lamoreaux, P.T., Litov, L.P., Neyland, J.B., 2016. Shared auditors in mergers and acquisitions. *Journal of Accounting and Economics* 61(1): 49–76.
- Edmans, A. 2011. Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics* 101 (3): 621–640.
- Edmans, A. 2012. The link between employee satisfaction and firm value, with implications for corporate social responsibility. *The Academy of Management Perspectives* 26 (4): 1–19.
- Francis, J.R., N. Golshan, and N. Hallman. 2021. Does distance matter? An investigation of partners who audit distant clients and the effects on audit quality. *Working paper*
- Francis, J.R., and M.D. Yu. 2009. Big4 office size and audit quality. *The Accounting Review* 84 (5), 1521–1552.

- Garret, J., R. Hoitash, and D. Prawitt. 2014. Trust and Financial Reporting Quality. *Journal of Accounting Research* 52 (5): 1087-1125.
- Ghosh, A. and D. Moon 2005. Auditor tenure and perceptions of audit quality. *The Accounting Review* 80 (2): 585–612.
- Guo, J., P. Huang, Y. Zhang, and N. Zhou. 2016. The effect of employee treatment policies on internal control weaknesses and financial restatements. *The Accounting Review* 91 (4): 1167–1194.
- Herhold, K. 2019. How Businesses Can Relocate Offices Successfully. *Commercial Real Estate, Clutch Report*.
- Hollingsworth, C. W., T. L. Neal, C. D. Reid. 2020. The Effect of Office Changes within Audit Firms on Clients' Audit Quality and Audit Fees. *AUDITING: A Journal of Practice & Theory*. 39 (1): 71–99.
- Huang, M., A. Masli, F. Meschke, and J. P. Guthrie. Clients' Workplace Environment and Corporate Audits. *AUDITING: A Journal of Practice & Theory*. 2017. 36 (4): 89–113
- Huang, Y. H., Robertson, M. M., and Chang, K. I. (2004). The role of environmental control on environmental satisfaction, communication, and psychological stress: effects of office ergonomics training. *Environment and Behavior*, 36(1), 617-638.
- Johnstone, K. M., C. Li, and S. Luo. 2014. Client-Auditor Supply Chain Relationships, Audit Quality and Audit Pricing. *AUDITING: A Journal of Practice & Theory: November*. 33 (4): 119-166.
- Kedia, S., and S. Rajgopal. 2011. Do the SEC's enforcement preferences affect corporate misconduct? *Journal of Accounting and Economics* 51 (3): 259-278.
- Knechel, W., S. Salterio, and B. Ballou. 2007. Auditing: Assurance and Risk. 3rd Edition. Mason, OH: South-Western Cengage Publishing.
- Leblebici, D. 2012. Impact of workplace quality on employee's productivity: Case study of a bank in Turkey. *Journal of Business, Economics and Finance* (1): 38-49.
- Lennox, C., X. Yu, T. Zhang. 2014. Does mandatory rotation of audit partners improve audit quality? *The Accounting Review* 89 (5): 1775-1803).
- Mansi, S.A., W.F., Maxwell, D.P. Miller, 2004. Does auditor quality and tenure matter to investors? Evidence from the bond market. *Journal of Accounting Research* 42 (4): 755–793.
- McCracken, S., S. Salterio, and M. Gibbins. 2008. Auditor-client management relationships and roles in negotiating financial reporting. *Accounting, Organizations and Society* 33 (4): 362–83.
- Mohr, R 1996. Office Space is a Revenue Enhancer, Not an Expense. *National Real Estate Investor*, 38 (7), 46-47
- Price Waterhouse Coopers. 2020. When everyone can work from home, what's the office for? New York, New York.
- Strauss-Kahn, V., Vives, X. 2009. Why and where do headquarters move? *Regional Science and Urban Economics* 39 (2): 168–186.
- Reichelt, K. and Wang, D. 2010. National and Office-Specific Measures of Auditor Industry Expertise and Effects on Audit Quality. *Journal of Accounting Research* 48 (3): 647-686
- Shipman, J., Q. Swanquist, R. Whited. 2017 Propensity Score Matching in Accounting Research. *The Accounting Review* 92(1): 213-244.
- Tracey, J.B., Tannenbaum, S.I., and Kavanagh, M.J. 1995. Applying trained skills on the job: The importance of the work environment. *Journal of Applied Psychology*, 80, 239–252.

Wells, P. 2002. Earnings management surrounding CEO changes, *Accounting and Finance* 42.
(3):169–193.