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Geographic distance and municipal internal control reporting

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ABSTRACT

Prior research has investigated various factors affecting auditor performance when examining the internal control system of an entity. However, one factor that remains relatively unexplored is the geographic distance between auditors and their municipal clients. This study explores whether geographic distance, measured as the driving distance between U.S. municipalities and their external auditors, plays a role in the likelihood and severity of internal control weaknesses identified during Circular A-133 audits. We find evidence of a positive association between the disclosure of internal control exceptions and driving distance, suggesting that audit rigor is greater for geographically distant clients. Overall, our findings contribute to our understanding of the factors affecting auditor independence and performance in the municipal audit market.

1. Introduction

Audits of governmental organizations play an important role in facilitating the distribution of high-quality financial information to stakeholders. Despite prior research on factors associated with municipal audit outcomes (e.g., Copley, 1991; Deis & Giroux, 1992; Lowensohn, Johnson, Elder, & Davies, 2007; López & Peters, 2010), one aspect that has received limited attention in the governmental audit realm involves the geographic distance between municipalities and their external auditors. The purpose of our study is to investigate whether geographic distance, measured as the driving distance between U.S. municipalities and their auditors, impacts auditor performance within the context of municipal audits. The results are based on analyses of the likelihood and severity of internal control weaknesses related to financial statements identified during Circular A-133 audits.

Understanding whether geographic distance impacts audit outcomes is important for several reasons. First, while only 9% of publicly traded companies in the U.S. are located more than 100 miles from a major metropolitan area (Arena & Dewally, 2012), approximately 17% of the municipalities in our sample are located at a similar distance. This increased dispersion of clients in the municipal audit market increases the possibility for geography-related effects on auditor performance. In addition, audit firms of varying size, specialty, and location serve the municipal audit market. This is in direct contrast with the market for publicly traded firms, which is dominated by larger audit firms, primarily the Big 4 (Hoitash, Hoitash, & Bedard, 2009). The increased variation of audit firms in the municipal sector introduces additional challenges that could manifest into differences in auditor performance. Lastly, there have been serious concerns regarding audit quality in the municipal sector over the years (e.g., GAO, 2007; PCIE, 2007).[1] Consequently, understanding the factors associated with governmental audit quality is particularly relevant to researchers, regulators, and public stakeholders.

Recent corporate sector research suggests that informational advantages and easier access to client personnel allow more proximate auditors to better constrain the financial reporting decisions of their clients (Choi, Kim, Qiu, & Zhang, 2012). This enhanced monitoring implies an inverse association between auditor–client distance and internal control quality. However, close geographic proximity to government clients also increases the likelihood of political and economic ties to the local community (Chan, Lin, & Mo, 2006), which could in turn impair auditor

[1] For instance, the President's Council on Integrity and Efficiency (PCIE) conducted quality control reviews of a sample of Single Audits over an annual period, split into two subsamples—audits of entities expending $50 million or more of Federal awards and of those expending less than $50 million. The PCIE deemed 24% of the former and 40% of the latter as unacceptable (PCIE, 2007). Furthermore, the U.S. Government Accountability Office (GAO) has documented a lack of satisfactory internal control testing, among other deficiencies, in audits performed by non-governmental auditors (GAO, 2007).

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independence. This latter argument implies a direct association between auditor–client distance and internal control quality due to greater auditor independence for distant clients. Therefore, whether and how geographic distance between municipalities and their auditors impacts internal control quality is an empirical issue that warrants additional investigation.

We find that the average driving distance between a municipality's administrative headquarters and the engagement office of their external auditor is approximately 50 miles. Evidence from our multivariate analyses indicates that auditor–municipality distance is positively associated with the existence and severity of reported internal control weaknesses. Thus, auditors seem to perform more rigorous audits when auditing geographically distant municipal clients. This could be an indication of greater independence due to reduced political or economic ties between auditors and their local municipal leaders (Chan et al., 2006).

To investigate the impact of municipality dispersion throughout the country, we perform separate analyses on rural, semi-urban, and urban municipality subsamples based on a municipality's proximity to urban population centers (Arena & Dewally, 2012; Loughran & Schultz, 2005). These additional analyses indicate that our findings are stronger for rural municipalities that are located far from a large metropolitan area. This reinforces the notion that auditor independence improves when the incentives for political and economic bonding are lower. However, this finding could be an artifact of fewer resources available for the operation of the internal control system by smaller municipalities in rural locations. In addition, the reporting quality of municipalities in smaller metropolitan areas could be adversely affected by constraints in the audit market (Jensen, Kim, & Yi, 2015) or lack of access to high-quality labor (DeFond, Francis, & Hallman, 2015).

We contribute to the existing auditing literature on governmental organizations in three primary ways. To our knowledge, this study is the first to perform a large scale, national-level analysis documenting the geographic distance between auditors and their municipal clients. As such, our findings help shed light on the dynamics of this unique audit environment. In addition, this study provides important considerations for tax-paying citizens and regulators trying to determine the amount of confidence to place on the audit reports of entities in the government sector, especially considering that audit quality has recently been in question (e.g., GAO, 2007; PCIE, 2007). Lastly, prior related studies in the for-profit sector measure auditor–client distance as a dichotomous condition (e.g., Choi et al., 2012; Jensen et al., 2015). By contrast, the results in this study are based on a continuous measure of driving distance between an auditor's engagement office and the administrative headquarters of its municipal clients, which improves the information content of the measure.

The remainder of this study is organized as follows. We first present a literature review that includes a brief discussion of the Single Audit Act and Circular A-133 audits, as well as a summary of prior research on links between geographic distance and contracting audit outcomes and auditor independence. Our hypothesis, sample selection procedures, and methodology are presented next, followed by a discussion of the results. The last section provides concluding remarks.

2. Literature review

The Single Audit Act of 1984 (SAA) requires that either a single or program-specific audit be conducted for governmental entities that spend more than $500,000 in federal awards during a fiscal year (OMB, 2003a; U.S. Congress, 1984).[2] The SAA was designed to improve the consistency of the federal audit process by requiring disclosures of compliance with applicable regulations and internal control deficiencies (U.S. Congress, 1996). Entities subject to examination must maintain internal control over federal programs, manage federal awards to ensure compliance with regulations and contractual agreements, and prepare appropriate financial statements (OMB, 2003a).

Auditors performing Circular A-133 audits are required to determine whether the expenditures of federal awards received by their clients are presented fairly in all material respects in relation to the financial statements. In addition, the audit report must disclose any reportable conditions and material weaknesses in internal controls noted during the audit (OMB, 2003a). According to the American Institute of Certified Public Accountants (AICPA), this requires auditors to perform tests that demonstrate an understanding of the recipient's internal control systems in order to support their risk assessments (AICPA, 2006). While the main objectives of Circular A-133 audits have remained the same over the years, their requirements continue to change in an attempt to improve the overall effectiveness of the single audit process.

DeAngelo (1981) defines audit quality as the probability that an auditor will detect and report a breach in the client's accounting system. When such a breach results in a material misstatement, the client's system of internal controls must include an exception or weakness in controls that allows the misstatement to occur (Eilifsen & Messier, 2000). Prior research in the corporate sector suggests that a multitude of factors, such as hiring a "dominant" external auditor (Ashbaugh-Skaife, Collins, & Kinney, 2007) and the presence of a strong audit committee (Hoitash et al., 2009), are associated with the likelihood of internal control weaknesses. However, direct evidence regarding the factors associated with auditor performance in the disclosure of findings and exceptions in the municipal sector is limited. Deis and Giroux (1992) use a sample of Texas school districts to investigate public sector determinants of audit quality, such as the number of clients served by an auditor. Similarly, Lowensohn et al. (2007) use a survey of Florida local government finance directors to suggest that industry specialization is associated with perceived municipal audit quality. The study does not find evidence supporting perceptions of differences in municipal audit quality and Big 4 auditors, echoing evidence from Copley (1991). López and Peters (2010) document links between auditor type and the disclosure of internal control weaknesses over major programs, in that they find evidence of a direct association between Big 4 auditors and exceptions identified during Circular A-133 audits.

Prior related research based on public company data provides evidence of an inverse association between geographic distance and audit quality. For instance, Choi et al. (2012) suggest that companies report lower levels of discretionary accruals and higher accrual quality when they employ a "local" external auditor.[3] The authors suggest that geographic proximity provides auditors with an informational advantage that facilitates a more effective monitoring of client managers, possibly because of common media markets, increased awareness of local business conditions, common social networks, or easier access to client personnel. By extension, audit quality will be lower for geographically distant clients due to the absence of such informational advantages. However, geographic distance imposes additional costs on auditors that could require additional client screening protocols, especially in the midst of a constrained audit market. For instance, Jensen et al. (2015) document evidence of an association between accruals quality and local auditors and find that audit fees increase with client distance, possibly as compensation for the increased costs incurred by auditors contracting with far away clients.

Existing research has also found that geographic proximity to governing bodies, such as an SEC office, has implications for auditees and their external auditors. DeFond et al. (2015) find evidence suggesting that non-Big 4 auditors are more likely to issue going concern opinions for clients headquartered in cities with SEC regional offices, possibly

[2] The threshold for single audits beginning on or after January 1, 2015, increased to $750,000 (OMB, 2003b).

[3] The definition of the term "local" varies slightly by study, but it is usually based on membership to a common Metropolitan Statistical Area (MSA) as defined by the U.S. Census Bureau (e.g., Choi et al., 2012), or on a proximity cutoff measure set at a distance of 100 km (e.g., Coval & Moskowitz, 2001; Kedia & Rajgopal, 2011; Malloy, 2005).

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