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Auditor-client geographic proximity and audit report timeliness

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ABSTRACT

While investors and regulators value the timely release of audited financial information, recent changes in the regulatory environment have increased the difficulty of providing timely audited financial information. In this paper we examine the association between auditor-client geographic proximity and external audit report delay, since identifying the factors that influence audit delay remains an important issue. We find strong evidence that audit reports are more timely for geographically proximate auditors and clients. Further, we show that the improvement in audit report timeliness is more pronounced for non-accelerated filers relative to accelerated filers. These results are robust to controls for potential self-selection bias.

1. Introduction

Information timeliness is an important quality in assessing the usefulness of audited financial reports and has been a longstanding concern of regulators, shareholders, analysts, managers, and auditors. The extant research documents a heightened market reaction to timely audited financial reports (Chambers & Penman, 1984), and penalties for firms with late audited financial reports (e.g.Alford, Jones, & Zmijewski, 1994; Bartov & Konchitchki, 2017; Griffin, 2003). Regulators' concerns that investors have access to timely financial reports are reflected in initiatives such as the institution of EDGAR, the acceleration of 10-K/10-Q filing deadlines for larger companies, and the adoption of XBRL. Since the timeliness of audited financial statements is a function of the timeliness of the audit report, improvements in audit report timeliness could have a significant impact on the timeliness of audited financial reports. However, recent changes in the regulatory and corporate reporting environment have increased the difficulty of providing timely audited financial reports (Bronson, Hogan, Johnson, & Ramesh, 2011; Krishnan & Yang, 2009), therefore increasing the salience of research identifying the factors that affect audit report timeliness.

In this study we investigate the association between auditor-client geographic proximity and audit delay, defined as the number of calendar days from fiscal year-end to the audit report date (Ashton, Willingham, & Elliott, 1987; Bronson et al., 2011; Krishnan & Yang, 2009; Whitworth & Lambert, 2014).[1] Our focus on audit report timeliness is further motivated by evidence from the extant research that longer audit reporting delays are associated with lower financial reporting quality (Blankley, Hurtt, & MacGregor, 2014; Kinney Jr & McDaniel, 1993).

Local auditors presumably have an information advantage which reduces information asymmetry between the local auditor and the client, because local auditors can acquire client-specific knowledge more easily relative to non-local auditors (Choi, Kim, Qiu, & Zang, 2012; Jensen, Kim, & Yi, 2015). Further, local auditors are able to interact more frequently with the client and obtain client-specific news from local media, which increases their ability to effectively monitor the client (Agarwal & Hauswald, 2010; Choi et al., 2012; Kang & Kim, 2008; Petersen & Rajan, 2002). The relative convenience of accessing clients' information, as well as a greater awareness of the economic and regulatory environment in the region and its impact on the client, should increase the efficiency of the local audit, thus reducing audit delays.

Conversely, auditor-client geographic proximity may not improve audit efficiency given the availability of technology, the use of standardized audit programs, and the common practice of knowledge sharing within audit firms. Further, while local auditors improve their clients' earnings quality, it is unclear whether this would extend to audit report timeliness since the extant research suggests a tradeoff between timeliness and reporting quality. For example, Bryant-Kutcher, Peng, and Weber (2013) and Doyle and Magilke (2013) find that the acceleration of filing deadlines by the SEC is associated with a decline in the reporting quality, whereas Krishnan and Yang (2009) find a decrease in reporting timeliness following the implementation of

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[1] In this study we use the terms auditor-client geographic proximity, auditor locality, local and non-local auditors, interchangeably. In addition, we use audit report lag and audit delay interchangeably. The audit report is deemed less timely if the audit delay or audit report lag is longer.

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regulatory changes which improve the reporting quality. Therefore, whether auditor-client geographic proximity improves audit report timeliness is an empirical issue.

To investigate whether auditor-client geographic proximity is associated with more timely audit reports, we utilize a two-step instrumental variable approach (hereafter, IV) to address potential self-selection bias, since the choice of a local auditor is likely non-random (Wooldridge, 2002). Using a large sample of audit report dates, we find strong evidence that audit delays are shorter for clients of local auditors relative to clients of non-local auditors. These results hold after controlling for other auditor characteristics such as auditor (office) size and influential clients, as well as factors identified in the prior research as significant in explaining audit report delays, suggesting that auditor locality is capturing an aspect of auditor characteristics not measured by these variables.

Bronson et al. (2011) document an increase in audit delays during the period when the SEC defined different types of filers based on their size. Therefore, we examine whether the local auditor advantage documented, thus far, is related to whether the client is a large accelerated, accelerated or non-accelerated filer. Regardless of the clients' filing status, we find that firms using local auditors have more timely audit reports relative to firms using non-local auditors. Further, we find that the improvement in audit report timeliness is more pronounced for non-accelerated filers which are more resoure-constrained (Boland, Bronson, & Hogan, 2015; Krishnan & Yu, 2012) suggesting that these firms benefit most from using a local auditor. As additional analyses, we extend the timeliness analysis to the timeliness of the 10-K filing and find that clients with local auditors file annual reports earlier than those with non-local auditors. Collectively, these results suggest that local auditors improve the information timeliness of their clients.

Our paper makes several contributions to the existing literature. First, to our knowledge, this is the first study to investigate the implication of auditor-client geographic proximity on audit report timeliness. While Choi et al. (2012) and Jensen et al. (2015) document higher earnings quality from using local auditors, we show that the audit reports from local auditors are more timely.

Second, our study contributes to the ongoing discussion on the effect of SEC's decision to accelerate the deadlines of periodic filings (Boland et al., 2015; Krishnan & Yang, 2009; Krishnan & Yu, 2012). Our findings suggest that amid the timing pressure, the use of local auditors can improve audit report timeliness, with the extent of the improvement being most significant for non-accelerated filers.

The remainder of the paper is organized as follows. The next section develops our research hypotheses. Section 3 outlines our research design and sample selection procedures. Section 4 discusses our empirical findings, Section 5 provides additional analyses, and Section 6 presents our research conclusions.

2. Background and hypothesis development

2.1. Auditor-client geographic proximity and audit report timeliness

Prior literature provides evidence that market participants value timely financial reports. Therefore, to the extent that the audit process hinders the timeliness of audited financial reports, companies may experience adverse consequences such as higher information asymmetry and thus negative market reaction (Alford et al., 1994; Bartov & Konchitchki, 2017; Chambers & Penman, 1984; Griffin, 2003). Additionally, increasing the speed of financial information dissemination to investors was an important reason for the SEC to insitute EDGAR, accelerate filing deadlines, and adopt XBRL. For example, the SEC states the most important beneifit of the acceleration of filing deadlines is to "accelerate the delivery of information to investors and the capital markets, enabling them to make more informed investment and valuation decisions more quickly" (SEC, 2002). Consequently, audit report timeliness continues to be of importance to various stakeholders, particularly given the adverse effect of the various regulatory changes in the post-SOX period (Ettredge, Li, & Sun, 2006; Lambert, Jones, Brazel, & Showalter, 2017).

Further, the extant research provides evidence that audit report delays are associated with lower financial reporting quality. For example, Kinney Jr and McDaniel (1993) find that longer audit delays are positively associated with corrections of previously reported interim earnings, and that the length of the delay increases with the size of the earnings overstatement. Similarly, Blankley et al. (2014) find evidence that firms with future restatements are more likely to have abnormally longer audit report lags relative to non-restating firms. Both studies suggest that delayed audit reports are likely to be due to ambiguous reporting issues and related disputes between auditors and clients. To the extent that a given mechanism can facilitate the quick resolution of such disputes, it would reduce audit delays and perhaps improve financial reporting quality.

In this paper, we investigate whether auditor-client geographic proximity is associated with audit report delay. Given the availability of technology, the use of standardized audit programs, and the common practice of knowledge sharing within audit firms, geographic proximity to clients may not create any special advantages. However, recent studies document that local auditors improve the quality of clients' financial reports relative to non-local auditors, likely due to the information advantage possessed by local auditors (Choi et al., 2012; Jensen et al., 2015; Lopez and Rich, 2017). Local auditors have better information about clients' businesses, incentives, and risks, and are able to conduct fieldwork more conveniently. Further, local auditors are more aware of the economic and regulatory environment in the region and the impact of such an environment on the clients (Choi et al., 2012). This information advantage would suggest more efficient planning and execution of the audit, i.e. greater audit efficiency.[2] The efficiency gains to the audit from auditor-client proximity are likely to increase audit report timeliness. Thus, our first hypothesis is stated below in an alternative form:

H1:. Clients audited by local auditors file audit reports earlier than clients audited by non-local auditors.

2.2. Legislative changes

Following section 409 of SOX (2002), the SEC accelerated filing deadlines, so that "accelerated filers" (hereafter, *AF*) with fiscal years ending on or after December 15, 2003, are required to file annual reports within 75 days after the end of the period.[3] "Large accelerated filers" (hereafter, *LargeAF*) (accelerated filers with a public float of $700 million or more) with fiscal years ending on or after December 15, 2006, face a 60-day annual report-filing deadline. "Non-accelerated filers" (hereafter, *NonAF*) (filers with a public float of less than $75 million) continue to file annual reports within 90 days after the end of the fiscal period.

The reductions in filing deadlines are intended to provide investors with more timely access to relevant information. However, simultaneous changes in regulatory requirements (such as the SOX section 404 requirements and (PCAOB standards, 2004a, 2004b, 2007) result in significant additional tasks imposed on managers and auditors, thus making it more difficult to comply with the accelerated filing deadlines (Krishnan & Yang, 2009). Given the varying pressure associated with filing, we posit that the impact of the local auditor on improving audit report timeliness should differ among the three groups of filers. While *NonAFs* face less time pressure in completing their filings, recent studies

[2] This general notion of geographic proximity providing information advantage is well documented in the literature (for example, see Malloy, 2005; Baik, Kang, & Kim, 2010; Bodnaruk, 2009; Kedia & Rajgopal, 2011; DeFond, Francis, & Hu, 2011).

[3] A company is an "accelerated filer" if (1) it has aggregate market value of voting and nonvoting common equity held by non-affiliates ("public float") of $75 million or more as of the last business day of the issuer's most recently completed second fiscal quarter; (2) it has been subject to the reporting requirements of the Securities Exchange Act of 1934 for at least 12 calendar months; (3) it has previously filed at least one Form 10-K; and (4) it is not eligible to use Forms 10-KSB and 10-QSB for small businesses (SEC, 2005).

Table 1
Variable definitions and measurements.

AUDIT_DELAY	=	Number of calendar days from fiscal year-end to audit report date for client *i* in year *t*;
DLOCAL	=	One if the audit office and the client's headquarter are in the same Metropolitan Statistical Area or the distance between them is < 100 km, and zero otherwise for client *i* in year *t*;
AF	=	One if client *i* in year *t* is an accelerated filer with a public float of ≥$75M in fiscal year ends ≥ 12/15/2003 and < 12/15/2006 or ≥$75M and < $700M in fiscal year ends ≥ 12/15/2006, and zero otherwise;
LargeAF	=	One if client *i* in year *t* is a large accelerated filer with a public float of ≥$700 M in fiscal year ends ≥ 12/15/2006, and zero otherwise;
NonAF	=	One if client *i* in year *t* is a non-accelerated filer with a public float of < $75 M in fiscal year ends ≥ 12/15/2003, and zero otherwise;
LOSS	=	One if a client reports negative earnings, and zero otherwise for client *i* in year *t*;
OFFICE	=	Natural log of aggregated client audit fees of an audit office in year *t*;
INFLUENCE	=	Client *i*'s total fees (audit fees plus nonaudit fees) as a percentage of total fees collected by its audit office in year *t*;
SIZE	=	Natural log of total assets for client *i* in year *t*;
EXTR	=	One if client *i* in year *t* reports extraordinary items, and zero otherwise;
AOPIN	=	One if the auditor's opinion for client *i* in year *t* is not standard unqualified, and zero otherwise;
AUDITOR_CHANGE	=	One if client *i* changes auditors in year *t*, and zero otherwise;
AR	=	Accounts receivables as a percentage of total assets for client *i* in year *t*;
BN	=	One if client *i* actual 4th-quarter earnings in year *t* is less than the earnings of the same quarter of year *t-1* (bad news), and zero otherwise;
BM	=	Ratio of the book value of equity to market value for client *i* in year *t*;
LVG	=	Total liabilities divided by total assets for client *i* in year *t*;
FOL	=	Number of analysts' forecasts over the 4th fiscal quarter of client *i* in year *t* compiled by I/B/E/S. If a firm is not covered by I/B/E/S, we set *FOL* to be zero;
NUM	=	Natural log of the number of business segments for client *i* in year *t*. Missing segment data are assigned a value of one;
YEND	=	One if client *i* in year *t* has December fiscal year-end, and zero otherwise;
BIGN	=	One if an auditor is one of the Big 5/4, and zero otherwise for client *i* in year *t*;
LITIND	=	One if client *i* in year *t* operates in a high-litigation industry, zero otherwise. High-litigation industries are industries with Standard Industrial Classification (SIC) codes of 2833–2836, 3570–3577, 3600–3674, 5200–5961, and 7370–7374;
FC	=	Zmijewski's (1984) financial condition index for client *i* in year *t*, where *FC* = − 4.336–4.513**ROA* + 5.679**FINL* + 0.004**LIQ*. *ROA* is net income to total assets, *FINL* is total debt to total assets, and *LIQ* is current assets to current liability. The higher the *FC* index value, the higher expected probability of financial failure.
COM	=	Industry concentration measured as the percentage of revenue controlled by the top five companies for each two-digit industry for client *i* in year *t*;
CAIN	=	Gross property, plant, and equipment expressed as a percentage of total assets for client *i* in year *t*;
NAS	=	Natural log of nonaudit fees over the natural log of total fees for client *i* in year *t*. Missing nonaudit fees are assigned a value of zero;
GCM	=	One if client *i* receives going-concern opinion in the year *t*, and zero otherwise;
ISSUE	=	One if client *i*'s sum of debt or equity issued during the past three years is > 5% of the total assets in year *t*, zero otherwise;
BIGRATIO	=	The number of Big 5/4 audit offices over the number of non-Big 5/4 in the MSA or within 100 km radius where client *i* is located in year *t*.

suggest that larger companies have the resources and infrastructure to support the implementation of regulatory changes (Boland et al., 2015; Krishnan & Yu, 2012). In contrast, smaller companies, such as *NonAF*s, may experience more difficulty with the implementation of regulatory changes because they are more resource constrained than larger companies. We contend that having a local auditor could benefit *NonAF*s to overcome some of the difficulty as the information advantage and geographic convenience of local auditors facilitate audit report timeliness. Thus, our second hypotheses (in alternative form) are:

H2:. The improvement in audit report timeliness from using a local auditor is more pronounced for non-accelerated filers (*NonAF*s) relative to large accelerated filers (*LargeAF*s) and accelerated filers (*AF*s).

3. Research design and sample selection

3.1. Auditor-client geographic proximity and audit report timeliness

To test our first hypothesis (H1), we use the following empirical model:

$$\begin{aligned} AUDIT\_DELAY_{it} = {} & \beta_0 + \beta_1 DLOCAL_{it} + \beta_2 OFFICE_{it} + \beta_3 INFLUENCE_{it} \\ & + \beta_4 SIZE_{it} + \beta_5 EXTR_{it} + \beta_6 AOPIN_{it} \\ & + \beta_7 AUDITOR\_CHANGE_{it} + \beta_8 AR_{it} + \beta_9 BN_{it} \\ & + \beta_{10} LOSS_{it} + \beta_{11} BM_{it} + \beta_{12} LVG_{it} + \beta_{13} FOL_{it} \\ & + \beta_{14} NUM_{it} + \beta_{15} YEND_{it} + \beta_{16} BIGN_{it} + \beta_{17} LITIND_{it} \\ & + \beta_{18} FC_{it} + \beta_{19} COM_{it} + \beta_{20} CAIN_{it} + industry + year \\ & + \varepsilon_{it} \end{aligned} \quad (1)$$

where for client *i* in year *t*, all variables are as defined in Table 1.

AUDIT_DELAY is defined as the number of calendar days from fiscal year-end to the audit report date (Ashton et al., 1987).[4] Following Choi et al. (2012), an auditor is defined as a local auditor if the location of the audit engagement office is in the same Metropolitan Statistical Area (MSA) area or within 100 km of its client's corporate headquarter (*DLOCAL* = 1), and as non-local auditor otherwise (*DLOCAL* = 0).[5] A significant negative β_1 would support H1, suggesting clients with local auditors, on average, file audit reports in a more timely manner than those with non-local auditors.

Eq. (1) includes various control variables that are documented by prior literature to be correlated with audit delay. Following Whitworth and Lambert (2014), we include audit office size (*OFFICE*), client importance (*INFLUENCE*), client size (*SIZE*), whether clients have extraordinary items (*EXTR*) and receive non-standard qualified opinion (*AOPIN*), whether there is an auditor change (*AUDITOR_CHANGE*), levels of receivables (*AR*), negative unexpected earnings (*BN*), and negative earnings (*LOSS*), book to market ratio (*BM*), and leverage ratio (*LVG*) as controls for factors which are likely to affect the audit procedure.

Following Son and Crabtree (2011), we include the following as additional controls: number of analysts' forecasts (*FOL*), the natural log of the number of business segments (*NUM*), whether clients have a December fiscal year-end (*YEND*), auditor type (*BIGN*), high-litigation industries (*LITIND*), clients' financial condition (*FC*), five-firm

[4] Our results remain unchanged if we define the delay variables using week days or log of the week/calendar days from fiscal year-end to the audit report date.

[5] We choose this measure because it considers the actual geographic distance. Choi et al. (2012) argue that given the huge difference in the size of MSAs, auditors and their clients in adjacent small MSAs could be geographically closer than others in the same MSAs which are much larger. Our results are robust with alternatively defining auditor locality that only considers whether clients and auditor offices are in the same MSAs.

Table 2
Sample selection.

Sample	# of obs
Client firms in COMPUSTAT with CIK code between years 2000–2012	103,482
Less: clients that changed their fiscal year-ends	6,182
Clients in financial or regulated industries (two-digit SICs 60–69 and 49)	31,056
Observations without clients' or auditors' location information	9,646
Observations without necessary data from COMPUSTAT/CRSP/ Audit Analytics	18,467
Sample for Model (1)	38,131
Less: observations prior to 12/15/2003	11,828
Sample for Model (2a)	26,303
Less: observations prior to 12/15/2006	8,886
Sample for Model (2b)	17,417

The number below the underline represents the sample size deducted by the respective sample selection requirements. For example, 17,417 = 26,303 − 8,886.

concentration ratio (*COM*), and capital investment (*CAIN*).[6] Finally, industry and year dummies are included to control for fixed industry and year effects.[7]

3.2. Legislative changes

As of December 15, 2003, the SEC differentiates *NonAF*s from *AF*s, in which *AF*s are required to file 10-K/10-Q on a more timely basis. To test our second hypothesis (H2), we estimate the following model using the sample with fiscal year ends starting and after December 15, 2003:

$$AUDITDELAY_{it} = \beta_0 + \beta_1 DLOCAL_{it} + \beta_2 AF_{it} + \beta_3 DLOCAL_{it} \times AF_{it} + \sum_{k=4}^{22} \beta_k CONTROL_{it} + industry + year + \varepsilon_{it} \quad (2a)$$

AF is a dummy variable, taking the value of one if a client is an accelerated filer, and zero if a client is a non-accelerated filer.[8] We include the same control variables as in Model (1). A significant positive β_3 would suggest that non-accelerated filers benefit more from the use of a local auditor, relative to accelerated filers.

As of December 15, 2006, the SEC further accelerated the periodic filing deadlines for the largest companies (i.e. *LargeAF*s). Therefore, for the sample period with fiscal year ends on and after December 15, 2006, we estimate the following model to test our second hypothesis (H2):

$$AUDITDELAY_{it} = \beta_0 + \beta_1 DLOCAL_{it} + \beta_2 AF_{it} + \beta_3 DLOCAL_{it} \times AF_{it} + \beta_4 LargeAF_{it} + \beta_5 DLOCAL_{it} \times LargeAF_{it} + \sum_{k=6}^{24} \beta_k CONTROL_{it} + industry + year + \varepsilon_{it} \quad (2b)$$

AF (*LargeAF*) is a dummy variable, taking the value of one if a company is an accelerated filer (large accelerated filer), and zero otherwise. We include the same control variables as in Model (1). A significant positive β_3 and β_5 would suggest that the non-accelerated filers benefit more from using a local auditor relative to accelerated and large accelerated filers.

3.3. Control for self-selection bias and econometric estimations

Since clients choose whether to engage local versus non-local auditors, there is a potential self-selection bias if we estimate the model using OLS regression. The observed OLS coefficient estimate of auditor locality, *DLOCAL*, could be driven by factors determining clients' choice of a local versus a nonlocal auditor.[9] To resolve the potential endogeneity problem, we estimate Models (1), (2a), and (2b) using the two-step instrumental variable approach suggested by Wooldridge (2002, 623–627). In the first step, we model *DLOCAL* on the variables from the selection model used in Choi et al. (2012) via a probit regression, among which some are included as control variables affecting audit delay in Model (1). We also include client importance (*INFLUENCE*) and the proportion of the number of BigN auditors over the number of non-BigN auditors in the same geographic area (*BIGRATIO*) in this selection model. The model in the first-step is described as follows:

$$DLOCAL_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 NAS_{it} + \beta_3 INFLUENCE_{it} + \beta_4 NUM_{it} + \beta_5 CAIN_{it} + \beta_6 LVG_{it} + \beta_7 LOSS_{it} + \beta_8 GCM_{it} + \beta_9 ISSUE_{it} + \beta_{10} FOL_{it} + \beta_{11} BIGN_{it} + \beta_{12} BIGRATIO_{it} + \sum_{k=13}^{24} \beta_k CONTROL_{it} + industry + year + \varepsilon_{it} \quad (3)$$

where CONTROL denotes those control variables used in Model (1). We exclude variables from Model (1) if they are redundant to the first twelve variables in Model (3) in predicting clients' choice of local versus non-local auditors. Variable definitions are reported in Table 1.[10]

We obtain the predicted value of *DLOCAL* from the estimation of Model (3) above and use it as the instrumental variable in the IV estimation of Model (1) to test H1.[11] Wooldridge (2002) argues that such a two-step IV approach is efficient and robust to the first-stage probit model (i.e. Model 3) being misspecified. In addition, this IV estimation is better than the Heckman (1979) type two-stage treatment effect approach because the Heckman test does not provide enough flexibility in estimating models with more than one endogenous variables. Models (2a) and (2b) contain more than one endogenous variable, i.e. *DLOCAL* and its interaction term with *AF* and *LargeAF*. We present the results of Model (3) in Appendix A. The results show that all the variables with significant coefficients have the expected signs. The Likelihood Ratio Chi-Square is significant at 1% and the pseudo-R^2 is 9.83%. To test our second hypothesis (Models 2a and 2b), since *DLOCAL* is interacted with *AF* and *LargeAF*, the endogeneity of interaction terms needs to be controlled. Specifically, we employ the predicted value of *DLOCAL* from Model (3), which is our instrumental variable in estimating Model (1), and its interactions with *AF* and *LargeAF* as the additional instruments when estimating Models (2a) and (2b) (Wooldridge, 2002, 627). The under- and weak- identification tests when estimating Models (1), (2a), and (2b) suggest that our instruments are not under or weakly identified.

3.4. Sample

We obtain our initial sample of 103,482 client firm-year

[6] Although Son and Crabtree (2011) investigate the determinants of earnings announcement timeliness, we include these variables because they capture factors influencing the overall timeliness of financial information.

[7] As a robustness check, we include three other controls (*FOREIGN, SPECIAL, and DISC*). *FOREIGN* (*SPECIAL; DISC*) equals to one if a firm reports foreign sales (special items; discontinued operations) in a given year; zero otherwise. Our results are robust with the inclusion of these additional controls.

[8] Although starting from December 15, 2006 *LargeAF*s are further differentiated from *AF*s, we group *LargeAF*s and *AF*s in the same group as *AF*s and differentiate only two groups of SEC filers (i.e. *NonAF*s and *AF*s) in this analysis.

[9] Employing the endogeneity test statistic which is defined as the difference of two Sargan-Hansen statistics, we significantly reject the null hypothesis that *DLOCAL* can be treated as exogenous at 0.01 level.

[10] We assign a value of zero if non-audit fees are missing in the Audit Analytics dataset in order to minimize reduction in our sample size. Our regression results remain qualitatively the same if we delete observations with missing non-audit fees.

[11] Heckman and Robb (1985) argue that the comparative advantage of IV estimation is that it "is the least demanding in the a priori conditions that must be satisfied for its use" and the consistency of coefficient estimates does not require the endogenous variables to be continuous. Moreover, Wooldridge (2002) recommends that the method used in our paper is more efficient than the traditional IV estimation for endogenous binary variables.

Table 3
Descriptive statistics.

Panel A: descriptive statistics and results of univariate test by *DLOCAL*

Variables	*DLOCAL* = 1		*DLOCAL* = 0		Difference	
	Mean	Median	Mean	Median	*t*-Test	Wilcoxon
	(1)	(2)	(3)	(4)	(1)–(3)	(2)–(4)
	(*N* = 30,580)		(*N* = 7,551)			
AUDIT_DELAY	63.49	61.00	71.33	71.00	−7.83***	−10.00***

Panel B: descriptive statistics for variables

	N	Mean	Std. dev.	25%	Median	75%
DLOCAL	38,131	0.8020	0.3985	1.0000	1.0000	1.0000
AF	17,417	0.3615	0.4805	0.0000	0.0000	1.0000
LargeAF	17,417	0.3472	0.4761	0.0000	0.0000	1.0000
OFFICE	38,131	16.1789	2.0571	14.8041	16.5142	17.7976
INFLUENCE	38,131	0.1261	0.2187	0.0117	0.0374	0.1231
SIZE	38,131	5.1913	2.5254	3.5752	5.3399	6.9302
EXTR	38,131	0.0148	0.1208	0.0000	0.0000	0.0000
AOPIN	38,131	0.4299	0.4951	0.0000	0.0000	1.0000
AUDITOR_CHANGE	38,131	0.0584	0.2345	0.0000	0.0000	0.0000
AR	38,131	0.1469	0.1217	0.0534	0.1239	0.2064
BN	38,131	0.4122	0.4922	0.0000	0.0000	1.0000
LOSS	38,131	0.4390	0.4963	0.0000	0.0000	1.0000
BM	38,131	0.3494	1.6322	0.1965	0.4275	0.7613
LVG	38,131	0.8242	1.9468	0.2883	0.4870	0.6886
FOL	38,131	37.6878	62.2428	0.0000	8.0000	51.0000
NUM	38,131	0.5173	0.6755	0.0000	0.0000	1.0986
YEND	38,131	0.6746	0.4685	0.0000	1.0000	1.0000
BIGN	38,131	0.6996	0.4584	0.0000	1.0000	1.0000
LITIND	38,131	0.3825	0.4860	0.0000	0.0000	1.0000
FC	38,131	2.0437	18.1451	−2.6072	−1.4075	0.0675
COM	38,131	0.4922	0.1600	0.3664	0.4515	0.5674
CAIN	38,131	0.5075	0.4341	0.1811	0.3837	0.7270

*, **, *** significantly different from zero at 0.1, 0.05, and the 0.01 level respectively (two-tailed).
Variables are as defined in Table 1.

observations between years 2000–2012 from COMPUSTAT. Table 2 details the data requirements that result in our final sample for the audit delay analysis. We first delete client firms that changed fiscal year end, and firms in financial or regulated industries. We then delete observations without clients' or auditors' location information from Audit Analytics database. We obtain clients' state/city/zip code and auditor's state/city information from Audit Analytics and identify their MSA from the map data provided by SAS which employs the U.S. Census Bureau's MSA cross-map.[12] SAS Maps Online provides MSA code (pre-2003 definition), longitude, and latitude information for each state/city in the U.S.[13] Finally, we constrain the sample to client firms with necessary data from COMPUSTAT, CRSP or Audit Analytics to calculate the remaining regressors in Model (1). This yields 38,131 observations for the audit delay analyses. We delete observations with fiscal year end prior to December 15, 2003 to analyze the differentiating effect of auditor locality on *AF*s and *NonAF*s (Model 2a) resulting in a sample of 26,303 observations. To further analyze the effect of auditor locality on *LargeAF*s (Model 2b), we delete observations with fiscal year ends prior to December 15, 2006, resulting in a final sample of 17,417 observations.

4. Empirical results

4.1. Descriptive statistics

Table 3 Panel A presents the results of univariate tests of the differences in the mean and median of *AUDIT_DELAY* between two sub-samples (*DLOCAL* = 1 and *DLOCAL* = 0). As shown in Panel A, *AUDIT_DELAY* is significantly shorter (at the 1% level) for clients hiring local auditors than for those hiring non-local auditors. This difference is also economically significant, showing clients with local auditors file audit reports 7–10 days earlier than those with non-local auditors. Panel B of Table 3 provides the descriptive statistics for all the independent variables of interest as well as the control variables included in our regressions.[14] As shown in the mean value of *DLOCAL*, on average 80% of the sample clients hire local auditors, consistent with Choi et al. (2012). In addition, 36% (35%) of our sample clients are *AF*s (*LargeAF*s), with the remaining being *NonAF*s.[15] On average, audit office annual audit fees is $10 million and the audit fee of a given

[12] The U.S. Census Bureau's MSA cross-map (pre-2003 definition) is available at http://www.census.gov/population/metro/files/lists/historical/99mfips.txt (accessed on 11/13/2015).

[13] The SAS maps online is available at http://support.sas.com/rnd/datavisualization/mapsonline/html/misc2015.html (accessed on 06/01/2015).Since Audit Analytics does not provide zip code information for audit offices, we use the city center zip code to calculate the geographic distance between clients and auditors if an auditor's state/city is matched with more than one zip code.

[14] All continuous variables were winsorized at both 1% and 99% levels to reduce the effects of outliers.

[15] These percentages are based on the sample period with fiscal year ends starting on December 15, 2006, when using Model (2b). For the sample period with fiscal year ends starting at December 15, 2003 (Model 2a), 69% (31%) of the sample clients are *AF*s (*NonAF*s).

Table 4
Association between auditor-client geographic proximity and audit report timeliness.

$$AUDIT\,DELAY_{it} = \beta_0 + \beta_1 DLOCAL_{it} + \beta_2 OFFICE_{it} + \beta_3 INFLUENCE_{it} + \beta_4 SIZE_{it} + \beta_5 EXTR_{it} + \beta_6 AOPIN_{it} + \beta_7 AUDITORCHANGE_{it} + \beta_8 AR_{it} + \beta_9 BN_{it} + \beta_{10} LOSS_{it} + \beta_{11} BM_{it} + \beta_{12} LVG_{it} + \beta_{13} FOL_{it} + \beta_{14} NUM_{it} + \beta_{15} YEND_{it} + \beta_{16} BIGN_{it} + \beta_{17} LITIND_{it} + \beta_{18} FC_{it} + \beta_{19} COM_{it} + \beta_{20} CAIN_{it} + industry + year + \varepsilon_{it} \quad (1)$$

Independent variables	Predicted sign	Estimate	
Constant	?	49.102	***
DLOCAL	–	− 64.255	***
OFFICE	+	2.704	***
INFLUENCE	+	13.885	***
SIZE	–	− 2.512	***
EXTR	+	3.443	**
AOPIN	+	4.206	***
AUDITOR_CHANGE	+	3.855	***
AR	+	17.188	***
BN	+	1.536	***
LOSS	+	5.007	***
BM	?	− 0.835	***
LVG	?	1.403	***
FOL	?	− 0.020	***
NUM	+	− 0.178	
YEND	?	− 1.572	***
BIGN	?	1.805	**
LITIND	?	− 0.141	
FC	?	− 0.174	***
COM	–	− 9.014	**
CAIN	–	− 0.634	
N		38,131	
F-Stat		74.17	***

*, **, *** Significantly different from zero at 0.1, 0.05, and the 0.01 level respectively (two-tailed).
The two-step instrumental variable approach suggested by Wooldridge, 2002 is applied to generate the coefficient estimates and all significance tests reported in the study are based on robust standard errors, which are adjusted for firm-specific clustering in our panel data (Rogers 1993), and for heteroskedasticity (White 1980). Industry and year dummies are also included as additional controls. All the continuous variables are winsorized at top and bottom 1% to control for outliers.
All variables are as defined in Table 1.

client represents about 12% of total audit fee of an audit office. About 57% of the sample clients receive unqualified audit opinion.[16] Approximately 70% of the sample clients engage a BigN auditors. The descriptive statistics of other variables are comparable to previous studies (Choi et al., 2012; Francis & Yu, 2009; Son & Crabtree, 2011; Whitworth & Lambert, 2014).

4.2. Auditor-client geographic proximity and audit report timeliness

The results of estimating Model (1) are reported in Table 4.[17] As shown in Table 4, the coefficient of *DLOCAL* is negative and significant for the audit delay analysis after controlling for other known factors. This is consistent with clients of local auditors filing audit reports earlier than clients of non-local auditors, providing support for H1.[18] The coefficient estimates on the control variables have the expected signs and significance.

4.3. Legislative changes

4.3.1. Audit delay

Table 5 presents the results for the regression testing the differentiating effect of auditor locality by clients' SEC filing status on audit delay. Panel A presents the results of Model (2a) comparing the effect for *AF*s and *NonAF*s, over the sample period beginning on December 15, 2003. The persistent significant negative coefficient on *DLOCAL* in Table 5 Panel A suggests that the results from Table 4 are robust to the potential correlated omitted variable problem due to omitting the interaction term, *DLOCAL* × *AF*, in Model (1). The coefficient estimate of *AF* (β_2) and that of (*AF* + *DLOCAL* × *AF*) ($\beta_2 + \beta_3$) are significantly negative (− 17.776 and − 4.377, respectively), indicating that on average, audit reports of accelerated filers are more timely than those of non-accelerated filers. In addition, Table 5 Panel A presents a comparison of the coefficient estimates for *AF*s and *NonAF*s between those using local auditors and non-local auditors. The comparison suggests that the local auditor advantage results in more timely audit reports for both *AF*s ($\beta_1 + \beta_3 = -36.341$) and *NonAF*s ($\beta_1 = -49.740$) and the gain in audit report timeliness is more pronounced for *NonAF*s than for *AF*s ($\beta_3 = 13.399$). This result provides support for H2a that the benefit of using local auditors in improving audit report timeliness is more pronounced for *NonAF*s than *AF*s.

Table 5 Panel B presents the results of Model (2b), which focuses on the sample period beginning on December 15, 2006, and compares the differentiating effect of auditor locality on audit report timeliness among *NonAF*s, *AF*s and *LargeAF*s. We find that large accelerated filers and accelerated filers have shorter audit delays relative to the non-accelerated filers.[19] In addition, using local auditors results in more timely audit reports for all clients, regardless of their filer status.[20] Further, we note that non-accelerated filers receive the most benefit (i.e., $\beta_1 < \beta_1 + \beta_3 = \beta_1 + \beta_5$), providing support for H2.

While Krishnan and Yang (2009) show that audit reports have been delayed after the SEC's decision to accelerate periodic filing deadlines, the results of Tables 4 and 5 collectively provide strong evidence that the use of a local auditor improves audit report timeliness. Additionally, this benefit is more pronounced among non-accelerated filers, which are most resource constrained (Boland et al., 2015; Krishnan & Yu, 2012).

5. Additional analysis: 10-K filing delay

Because audit work needs to be completed prior to the filing of the 10-K, we also examine the impact of auditor locality on 10-K filing delays (i.e. number of calendar days from fiscal year-end to 10-K filing date). The untabulated univariate analysis shows that clients with local auditors file annual reports 9 to 11 days earlier than those with non-local auditors. In addition, the untabulated multivariate regression results show that consistent with our audit delay results, 10-K filing delays are shorter for clients with a local auditor. Collectively, these results suggest that auditor locality improves the overall information timeliness of clients.

[16] We obtained auditor's opinion data from COMPUSTAT and coded *AOPIN* to be one if a client received "qualified", "no opinion", "unqualified with additional language" or "adverse opinion" in a year; and zero if a client received "unqualified". This definition of AOPIN is consistent with Son and Crabtree (2011). The distribution across these different opinions in our sample is consistent with that of the COMPUSTAT population during the same time period. In addition, our results are robust if *AOPIN* is replaced with two variables (*GCM* and *MW*). *GCM* (*MW*) takes the value of one if an auditor of a given client has provided the going concern opinion (identified material weaknesses); zero otherwise.

[17] Our results are robust if 2SLS or LIML (Limited Information Maximum Likelihood) are employed.

[18] The OLS results of Model (1) show that the coefficient estimate of *DLOCAL* is negative, significant at 1%. Our main results are based on the IV approach because of the endogeneity concern with the OLS analysis.

[19] Comparison tests show that $\beta_4 = \beta_2 < 0$, and $(\beta_1 + \beta_4 + \beta_5) < (\beta_1 + \beta_2 + \beta_3) < \beta_1 < 0$, indicating that on average, the non-accelerated filers are the least timely among the three types of filers.

[20] $\beta_1 < 0$, $(\beta_1 + \beta_3) < 0$, and $(\beta_1 + \beta_5) < 0$ suggests that *NonAF*s, *AF*s, and *LargeAF*s benefit from local auditors.

Table 5
Differentiating effect of auditor locality on audit report timeliness by clients' SEC filing status.

Panel A: non-accelerated files (*NonAF*) and accelerated filers (*AF*)

$$AUDITDELAY_{it} = \beta_0 + \beta_1 DLOCAL_{it} + \beta_2 AF_{it} + \beta_3 DLOCAL_{it} \times AF_{it} + \sum_{k=4}^{22} \beta_k CONTROL_{it} + industry + year + \varepsilon_{it} \quad (2a)$$

	Individual estimates			Sum of estimates: (*DLOCAL* = 0)			Sum of estimates: (*DLOCAL* = 1)			Difference btw. local and Non-local		
	Coefficient			Coefficient			Coefficient					
β_0	49.167	***										
β_1	− 49.740	***	*NonAF*	Base Group			β_1	− 49.740	***	β_1	− 49.740	***
β_2	− 17.776	***	*AF*	β_2	− 17.776	***	$\beta_1 + \beta_2 + \beta_3$	− 54.117	***	$\beta_1 + \beta_3$	− 36.341	***
β_3	13.399	***	*AF-NonAF*	β_2	− 17.776	***	$\beta_2 + \beta_3$	− 4.377	***	β_3	13.399	***
N	26,303											
F-Stat	74.22	***										

Panel B: non-accelerated files (*NonAF*), accelerated filers (*AF*) and large accelerated filers (*LargeAF*)

$$AUDITDELAY_{it} = \beta_0 + \beta_1 DLOCAL_{it} + \beta_2 AF_{it} + \beta_3 DLOCAL_{it} \times AF_{it} + \beta_4 LargeAF_{it} + \beta_5 DLOCAL_{it} \times LargeAF_{it} + \sum_{k=6}^{24} \beta_k CONTROL_{it} + industry + year + \varepsilon_{it} \quad (2b)$$

	Individual estimates			Sum of estimates: (*DLOCAL* = 0)			Sum of estimates: (*DLOCAL* = 1)			Difference btw. local and Non-local		
	Coefficient			Coefficient			Coefficient					
β_0	86.136	***										
β_1	− 45.856	***	*NonAF*	Base Group			β_1	− 45.856	***	β_1	− 45.856	***
β_2	− 26.104	***	*AF*	β_2	− 26.104	***	$\beta_1 + \beta_2 + \beta_3$	− 51.767	***	$\beta_1 + \beta_3$	− 25.663	***
β_3	20.193	***	*LargeAF*	β_4	− 30.365	***	$\beta_1 + \beta_4 + \beta_5$	− 61.105	***	$\beta_1 + \beta_5$	− 30.740	***
β_4	− 30.365	***	*AF-NonAF*	β_2	− 26.104	***	$\beta_2 + \beta_3$	− 5.911	***	β_3	20.193	***
β_5	15.116	***	*LargeAF-AF*	β_4 - β_2	− 4.261		$(\beta_4 + \beta_5) - (\beta_2 + \beta_3)$	− 9.338	***	$\beta_5 - \beta_3$	− 5.077	
N	17,417											
F-Stat	103.72	***										

Panel A includes clients with fiscal year end starting and after December 15, 2003. Panel B includes clients with fiscal year end starting and after December 15, 2006.
*, **, *** significant at 0.1, 0.05, and 0.01 levels, respectively.
The two-step instrumental variable approached suggested by Wooldridge (2002) is applied to generate the coefficient estimates and all significance tests reported in the study are based on robust standard errors, which are adjusted for firm-specific clustering in our panel data (Rogers 1993), and for heteroskedasticity (White 1980). Industry and year dummies are also included as additional controls. All the continuous variables are winsorized at top and bottom 1% to control for outliers.
All variables are as defined in Table 1.

6. Conclusion

The timeliness of accounting information has long been a concern to investors, companies, auditors, and regulators. Prolonged financial preparation and delays in the audit process caused by recent changes in the regulatory environment (e.g., the SOX, and recent PCAOB Auditing Standards) have increased the time pressure for companies and auditors to improve the efficiency of providing accounting information. Krishnan and Yang (2009) document an increase in audit delay after these legislative actions. We find strong evidence that audit delays are shorter for clients hiring local auditors relative to those hiring non-local auditors. We also find that the efficiency gain from using a local auditor applies to all clients regardless of their SEC filing status (i.e., *NonAF*s, *AF*s or *LargeAF*s). Furthermore, the most significant efficiency gain is among non-accelerated filers which are most resource constrained. Our results are robust to potential self-selection bias associated with clients' choice of local versus non-local auditors.

Our paper contributes to the literature examining the effect of auditor-client geographic proximity. Along with Choi et al. (2012) and Jensen et al. (2015) we show that auditor-client geographic proximity is associated with an improvement in clients' reporting environment. This study also contributes to the ongoing discussion on the effect of SEC's decision to shorten the periodic filing deadlines. To the extent that our attempts to control for potential endogeneity problems and for variables documented in prior studies which affect audit delays are not effective, we acknowledge that the documented association between auditor-client geographic proximity and audit delay could be attributed to correlated omitted variables. As such, our study is an association study, and does not assert causality. Finally, despite our best attempt to model clients' choice of local versus non-local auditors in this study, a comprehensive study on the factors that drive such clients' choice could be fruitful area for future research.

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Appendix A. Auditor choice model

$$DLOCAL_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 NAS_{it} + \beta_3 INFLUENCE_{it} + \beta_4 NUM_{it} + \beta_5 CAIN_{it} + \beta_6 LVG_{it} + \beta_7 LOSS_{it} + \beta_8 GCM_{it} + \beta_9 ISSUE_{it} + \beta_{10} FOL_{it} + \beta_{11} BIGN_{it} + \beta_{12} BIGRATIO_{it} + \sum_{k=13}^{24} \beta_k \text{CONTROLS}_{it} + industry + year + \varepsilon_{it} \quad (3)$$

where CONTROL denotes those control variables used in Model (1). We exclude variables from Model (1) if they are redundant to the first twelve variables in Model (3) in predicting clients' choice of local versus non-local auditors. All variables except *INFLUENCE* and *BIGRATIO* are from the selection model of Choi et al. (2012). We expect *INFLUENCE* and *BIGRATIO* to be positively associated with the choice of a local auditor because local auditors are less likely to turn away influential clients and the availability of high-quality audits in a client's geographic region likely enables the hiring of a local auditor. Variable definitions are reported in Table 1. The results of Model (3) using the sample for Model (1) are as follows.

Independent variables	Predicted sign	Estimate	
Constant	?	− 2.388	***
SIZE	+	0.008	
NAS	+	0.145	***
INFLUENCE	+	0.290	***
NUM	−	− 0.097	***
CAIN	−	0.040	**
LVG	?	0.022	**
LOSS	−	− 0.059	***
GCM	−	− 0.282	***
ISSUE	−	0.007	
FOL	+	0.002	***
BIGN	+	0.284	***
BIGRATIO	+	0.030	*
Observations		38,131	
Likelihood ratio chi-square		3732.54	***
Pseudo R^2		9.83%	

*, **, ***Significantly different from zero at 0.1, 0.05, and the 0.01 level respectively, based on a two-tailed test.

References

Agarwal, S., & Hauswald, R. (2010). Distance and private information in lending. *Review of Financial Studies, 23*, 2757–2788.

Alford, A. W., Jones, J. J., & Zmijewski, M. E. (1994). Extensions and vilolations of the statutory 10-K filing requirements. *Journal of Accounting and Economics, 17*, 229–254.

Ashton, R. H., Willingham, J. J., & Elliott, R. K. (1987). An empirical analysis of audit delay. *Journal of Accounting Research, 25*(2), 275–292.

Baik, B., Kang, J. K., & Kim, J. M. (2010). Local institutional investors, information asymmetries, and equity returns. *Journal of Financial Economics, 97*, 81–106.

Bartov, E., & Konchitchki, Y. (2017). SEC filings, regulatory deadlines, and capital market consequences. *Accounting Horizons, 31*(4), 109–131.

Blankley, A., Hurtt, D., & MacGregor, J. (2014). The relationship between audit report lags and future restatements. *Auditing: A Journal of Practice & Theory, 33*(2), 27–57.

Bodnaruk, A. (2009). Proximity always matters: Local bias when the set of local companies changes. *Review of Finance, 13*(4), 629–656.

Boland, C. M., Bronson, S. N., & Hogan, C. E. (2015). Accelerated filing deadlines, internal controls, and financial statement quality: The case of originating misstatements. *Accounting Horizons, 29*(3), 551–575.

Bronson, S., Hogan, C., Johnson, M., & Ramesh, K. (2011). The unintended consequences of PCAOB auditing standard Nos. 2 and 3 on the reliability of preliminary earnings releases. *Journal of Accounting and Economics, 51*, 95–114.

Bryant-Kutcher, L., Peng, E., & Weber, D. (2013). Regulating the timing of disclosure: Insights from the acceleration of 10-K filing deadlines. *Journal of Accounting and Public Policy, 32*, 475–494.

Chambers, A., & Penman, S. (1984). Timeliness of reporting and the stock price reaction to earnings announcements. *Journal of Accounting Research, 22*(1), 21–47.

Choi, J. H., Kim, J. B., Qiu, A. A., & Zang, Y. (2012). Geographic proximity between auditor and client: How does it impact audit quality? *Auditing: A Journal of Practice & Theory, 31*(2), 43–72.

DeFond, M., Francis, J. R., & Hu, X. (2011). *The geography of SEC enforcement and auditor reporting for financially distressed clients.* Working paperUniversity of Southern California.

Doyle, J., & Magilke, M. (2013). Decision usefulness and accelerated filing deadlines. *Journal of Accounting Research, 51*(3), 549–581.

Ettredge, M. L., Li, C., & Sun, L. (2006). The impact of SOX section 404 internal control quality assessment on audit delay in the SOX Era. *Auditing: A Journal of Practice & Theory, 25*(2), 1–23.

Francis, J. R., & Yu, M. D. (2009). Big 4 office size and audit quality. *The Accounting Review, 84*(5), 1521–1552.

Griffin, P. A. (2003). Got information? Investor response to form 10-K and form 10-Q EDGAR filings. *Review of Accounting Studies, 8*, 433–460.

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica, 47*(1), 153–161.

Heckman, J. J., & Robb, R. (1985). *Drawing inferences from self-selected sample.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Jensen, K., Kim, J. M., & Yi, H. (2015). The geography of US auditors: Information quality and monitoring costs by local versus non-local auditors. *Review of Quantitative Finance and Accounting, 44*, 513–549.

Kang, J. K., & Kim, J. M. (2008). The geography of block acquisitions. *The Journal of Finance. 63*(6), 2817–2858.

Kedia, S., & Rajgopal, S. (2011). Do the SEC's enforcement preferences affect corporate misconduct? *Journal of Accounting and Economics, 51*(3), 259–278.

Kinney, W., Jr., & McDaniel, L. (1993). Audit delay for firms correcting quarterly earnings. *Auditing: A Journal of Practice & Theory, 12*(2), 135–142.

Krishnan, G. V., & Yu, W. (2012). Do small firms benefit from auditor attestation of internal control effectiveness? *Auditing: A Journal of Practice & Theory, 31*(4), 115–137.

Krishnan, J., & Yang, J. S. (2009). Recent trends in audit report and earnings announcement lag. *Accounting Horizons, 23*, 265–288.

Lambert, T. A., Jones, K. L., Brazel, J. F., & Showalter, D. S. (2017). Audit time pressure and earnings quality: An examination of accelerated filings. *Accounting, Organizations and Society, 58*, 50–66.

Lopez, D. M., & Rich, K. T. (2017). Geographic distance and municipal internal control reporting. *Advances in Accounting, 36*(March), 40–49.

Malloy, C. (2005). The geography of equity analysis. *Journal of Finance, 60*(2), 719–755.

Petersen, M. A., & Rajan, R. G. (2002). Does distance still matter? The information revolution in small business lending. *The Journal of Finance, 57*(6), 2533–2570.

Public Company Accounting Oversight Board (PCAOB) (2004a). *An audit of internal control over financial reporting performed in conjunction with an audit of financial statements. Auditing standard no. 2.* Washington, DC: PCAOB.

Public Company Accounting Oversight Board (PCAOB) (2004b). *Audit documentation. Auditing standard no. 3.* Washington, DC: PCAOB.

Public Company Accounting Oversight Board (PCAOB) (2007). *An audit of internal control over financial reporting that is integrated with an audit of financial statements. Auditing standard no. 5.* Washington, DC: PCAOB.

Sarbanes and Oxley Act (SOX) (2002). An act to protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws,

and for other purposes. Available at: https://www.gpo.gov/fdsys/pkg/PLAW-107publ204/content-detail.html.
Securities and Exchange Commission (SEC) Acceleration of Periodic Report Filing Dates and Disclosure Concerning Website Access to Reports (Release No. 33-8128) Available at https://www.sec.gov/rules/final/33-8128.htm#IC1.
Securities and Exchange Commission (SEC) (2005). Final rule: Revisions to accelerated filer definition and accelerated deadlines for filing periodic reports. Release No. 33-8644. Available at: https://www.sec.gov/rules/final/33-8644.pdf.
Son, M., & Crabtree, A. D. (2011). Earnings announcement timing and analyst following. *Journal of Accounting, Auditing, & Finance, 26*(2), 443–467.
Whitworth, J., & Lambert, T. (2014). Office-level characteristics of the Big 4 and audit report timeliness. *Auditing: A Journal of Practice & Theory, 33*(3), 129–152.
Wooldridge, J. M. (2002). *Econometric analysis of cross section and panel data.* Cambridge, MA: MIT Press.
Zmijewski, M. (1984). Methodological issues related to the estimation of financial distress prediction models. *Journal of Accounting Research, 22*, 59–82.