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Jaelyn Prentice

University of Arkansas, Fayetteville

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Audit-Related Services and Audit Quality: Evidence from Benefit Plan Audits

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in Business Administration

by

Jaclyn Prentice
Southeastern Oklahoma State University
Bachelor of Business Administration in Accounting, 2004
Southeastern Oklahoma State University
Bachelor of Science in Mathematics, 2004
University of Texas at Dallas
Master of Science in Accounting Information Management, 2012

August 2016
University of Arkansas

This dissertation is approved for recommendation to the Graduate Council.

Dr. Gary F. Peters
Dissertation Director

Dr. Ken Bills
Committee Member

Dr. Jonathan Shipman
Committee Member

ABSTRACT

The following study examines a material but less understood component of the public audit marketplace, namely the provision of “audit-related” services to financial statement audit clients. I use the benefit plan audit service setting to examine the company and benefit plan characteristics associated with auditor selection and the impact of audit-related services on financial statement audit quality. I provide market evidence of distinct shifts in the use of the *same* audit firm for the financial statement audit and other audit-related services over time as well as characteristics of the choice of auditors. I then test whether having the same audit firm for both types of audit services is associated with financial statement audit quality as measured by missed misstatements (revealed through future restatements). I find that companies that engage the same audit firm for their financial statement audit and benefit plan audit are less likely to have subsequent restatements. I also test whether having the same audit firm for both types of audit services is associated with switching the financial statement audit firm. I find that companies that engage the same audit firm for their financial statement audit and benefit plan audit are associated with a lower likelihood of switching their financial statement audit firm.

Overall, my results suggest that choosing the same auditor for both the financial statement audit and audit-related services is associated with a higher level of financial statement audit quality consistent with knowledge spillover between the financial statement and benefit plan audits. My findings also suggests that who provides audit-related services, and whether or not that provider has changed, affects the perception of switching costs for the financial statement audit.

Acknowledgments

I am grateful for the support and guidance of my dissertation committee: Gary Peters (chair), Ken Bills, and Jonathan Shipman. I would also thank workshop participants at the University of Arkansas, the University of North Dakota, and Oklahoma State University for helpful suggestions and comments. I thank Burch Kealey at the University of Nebraska for his assistance with Direct Edgar, a helpful tool in hand collecting information. I thank my family for their encouragement. I thank my husband, David, for his support in accomplishing my goals and dreams.

Dedication

I dedicate this dissertation to my wonderful husband, David Prentice. He has encouraged and supported me. I love him always and forever.

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I. INTRODUCTION

The Sarbanes-Oxley Act of 2002 (SOX) established greater restrictions on the services that financial statement auditors can provide to their clients due to concerns over the potentially detrimental effects of impaired auditor independence (SEC 2007; U.S. House of Representatives 2002). As a result, many audit committees have questioned their company's use of auxiliary audit services even when allowed by law (Abbott, Parker, and Peters 2011; Gaynor McDaniel, and Neal 2006; Abbott, Parker, Peters, and Raghunandan 2003a). In contrast, many market proponents argue that the provision of services outside the financial statement audit may improve the quality of audits as a result of knowledge spillover (SEC 2001). While the restrictions and debate have focused primarily on “nonaudit” services, financial statement auditors are often used to provide “audit-related” services outside of the financial statement audit.¹ Audit-related services provide a setting to examine the characteristics of auditor choice and the potential benefits of auxiliary services provided by the financial statement auditor.

In this study, I examine how the provision of benefit plan audit services has changed over time and I examine the characteristics of engaging the financial statement auditor for benefit plan

¹ SOX (2002) defines audit as “an examination of the financial statements of any issuer by an independent public accounting firm in accordance with the rules of the Board or the Commission, for the purpose of expressing an opinion on such statements.” The Securities and Exchange Commission (SEC) (2003) defines audit-related services as “assurance and related services that traditionally are performed by the independent accountant.” SOX (2002) defines nonaudit services as “any professional service provided to an issuer by a registered public accounting firm, other than those provided to an issuer in connection with an audit or a review of the financial statements of an issuer.” When examining the potential impact of auxiliary services provided by the financial statement auditor, prior literature often considers audit-related services to be a category of nonaudit services (Paterson and Valencia 2011; Kinney, Palmrose, and Scholz 2004). Regulators consider audit-related services to be a subset of nonaudit services in that audit-related fees are not categorized as audit fees within the company's required auditor fee disclosures (SEC 2015). The SEC also lists employee benefit plan audits as a type of service that would be included under the category “audit-related fees” (SEC 2014).

audits. I also test whether having the same audit firm for both the financial statement audit and the benefit plan audit affects financial statement audit quality and benefit plan audit quality. I test the characteristics of benefit plan quality. I also test benefit plan audit firm switches and financial statement audit firm switches.

Although there exists a strong concern among regulators, market participants, and service providers that nonaudit services may impair auditor independence, prior research generally finds no association between aggregated nonaudit services and audit quality (Ashbaugh, LaFond, and Mayhew 2003; Chung and Kallapur 2003; DeFond, Raghunandan, and Subramanyam 2002; Simunic 1984). However, these studies are limited in their ability to identify the nature of these services when the services are not provided by the financial statement auditor (e.g., Gleason and Mills 2011; Paterson and Valencia 2011; DeFond et al. 2002; Simunic 1984).² Moreover, market participants have expressed concerns about the unintended consequences of overly restricting the services provided by the financial statement auditor (e.g., Copeland 2002; Goldwasser 2002; Shedlarz 2002; SEC 2001).

Using the benefit plan audit setting, I am able to examine a distinct audit-related service that is purchased by companies across multiple industries and requires public disclosure of the accounting firm service provider. This setting creates a unique opportunity to identify the potential demand for auxiliary services provided by accounting firms and whether or not the financial statement auditor is utilized for these services. It also allows me to examine the potential unintended consequences of the Sarbanes-Oxley Act on the market for accounting firm services. The audit-related service setting provides a theoretically consistent setting to examine

² See Gaver and Paterson (2013) for an example in the literature that identifies the auditor of the actuarial services (a nonaudit service) in the insurance industry.

the potential knowledge spillover effects of auxiliary services provided by the financial statement auditor.

Benefit plan audits represent an economically significant service provided by the accounting firm industry. Benefit plans audited in 2010 included \$5.7 trillion in benefit plan assets and represented approximately 93 million participants (DOL 2012). Providers of these audit-related services are subject to explicit professional standards and regulations (DOL 2015a). Benefit plan audits mirror the process of traditional financial statement audits. While such accounting firm services have historically been seen as off-season auxiliary services, benefit plan audits often occur concurrent with the traditional financial statement audit. This timing is particularly true during the post-SOX regulatory regime in which increasing internal control and substantive audit procedure occur during interim periods.

My sample includes filers of 11-K reports (the benefit plan's financial statements and related auditor's opinion) from 2004 through 2012. Specifically, I examine the trend in the provision of these benefit plan audits and the company specific characteristics. I then test whether having the same audit firm for both types of audit services is associated with financial statement audit quality as measured by missed misstatements (as revealed through future restatements). I also test the association between having the same audit firm and types of misstatements, specifically payroll-related and debt-related misstatements, in order to have more evidence of knowledge spillover between the benefit plan audit and the financial statement audit. I test whether having the same audit firm for both types of audit services is associated with benefit plan audit quality as measured by benefit plan restatements and late benefit plan filings and whether it is associated with benefit plan quality as measured by the disclosure of excise taxes or late contributions and the reporting of Employee Benefits Security Administration

(EBSA) fines. I also test the characteristics of switching benefit plan auditors and the characteristics of switching financial statement auditors.

Overall, I document a distinct shift in these services in the audit market. The provision of benefit plan audits by financial statement auditors has decreased from 72.2 percent in 2004 to 50.9 percent in 2012. I find that larger companies are more likely to engage the same audit firm for both the financial statement audit and the benefit plan audit. I find evidence that engaging the same audit firm for the financial statement audit and the benefit plan audit is associated with a lower likelihood of a misstatement. I also find that engaging the same audit firm for the financial statement audit and the benefit plan audit is associated with a lower likelihood of payroll-related and a lower likelihood of debt-related misstatements. These findings suggests that companies benefit from the knowledge spillover between the two engagements.

I find limited evidence of an association between having the same audit firm provide both the financial statement audit and the benefit plan audit and benefit plan audit quality as measured by benefit plan restatements and benefit plan late filings. I find no association using benefit plan restatements and a positive association using benefit plan late filings. I also find no association between having the same audit firm provide both the financial statement audit and the benefit plan audit and benefit plan quality as measured by the disclosure of excise taxes or late contributions and the reporting of EBSA fines. Collectively, my findings suggests that the company's financial statement audit benefits from having the same audit firm perform its benefit plan audit; however, this benefit is not necessarily reciprocated with the financial statement audit providing incremental benefit to the benefit plan audit.

I find that companies with a Big N benefit plan auditor in the prior period are more likely to switch their benefit plan auditor whether or not the company had the same auditor providing

the financial statement audit and the benefit plan audit in the prior period. This finding suggests that companies may be more concerned with a potential price premium that is associated with the Big N. Combined with my previous findings regarding the characteristics of benefit plan quality, it seems that the Big N do not seem to be associated with a higher level of benefit plan quality.

I find that companies with the same audit firm providing the financial statement audit and the benefit plan audit are associated with a lower likelihood of switching their financial statement audit firm. While companies that have switched benefit plan audit firm are associated with a higher likelihood of switching their financial statement audit firm. These findings suggests that the provider of audit-related services may affect financial statement audit firm switching.

My paper contributes to the academic literature in several ways. I contribute by adding evidence on the relation between audit-related services and audit quality. Prior research has focused primarily on nonaudit service fees without having a clear control sample of companies receiving the same nonaudit services from another audit firm (Paterson and Valencia 2011; Kinney et al. 2004; DeFond et al. 2002; Simunic 1984). I extend this literature by considering a setting where (1) I know the identity of the audit firm providing the nonaudit service and (2) the type of service is audit-related and seemingly homogenous across industries. However, it is the variation in complexity among benefit plans that adds additional depth to the benefit plan setting. This unique setting allows me to study the potential for knowledge spillover between an audit-related service and the financial statement audit and to explore whether the financial statement audit also aids in an audit-related service. I further contribute to the academic literature by offering a descriptive analysis of benefit plan audits. I also contribute to the academic literature by offering evidence of an affect between audit related services and financial statement auditor switching. I expect the results of this study to be of interest to the Securities and Exchange

Commission (SEC), Public Company Accounting Oversight Board (PCAOB), and other regulators concerned with the effect of nonaudit services on audit quality. My results should also be of interest to practitioners as they determine whether to specialize in benefit plan audits and to audit committees in the selection of nonaudit service providers.

The remainder of this paper is organized as follows. I discuss prior literature and develop my hypothesis in section II. I present my sample characteristics and data collection in Section III. I present my research design in section IV, and report empirical results in section V. I conclude in section VI.

II. BACKGROUND, PRIOR LITERATURE, AND HYPOTHESES DEVELOPMENT

Benefit Plan Audits

The Employee Retirement Income Security Act of 1974 (ERISA) set standards for companies offering benefit plans in order to protect benefit plan participants.³ ERISA is administered by three governmental agencies: the Department of Labor (DOL), the Internal Revenue Service (IRS), and the Pension Benefit Guaranty Corporation (DOL 2015a). The DOL sets the regulatory standards for the operation of benefit plans, and when audits are required, the DOL oversees the quality of benefit plan audits (DOL 2015a). The types of benefit plans covered by ERISA include defined contribution plans, defined benefit pensions, and welfare plans.

My study focuses on the audits of defined contribution plans. Prior research has documented the increase in the number of defined contribution plans offered relative to defined benefit plans (Gustman and Steinmeier 1992). Unlike a defined benefit plan that promises participants a specific monthly benefit at retirement, a defined contribution plan allows

³ For example ERISA requires companies to provide participants with plan information, file a Form 5500 (an informational return administered by the IRS), and carry out certain fiduciary responsibilities.

participants and/or their employer to contribute money to an individual account in the plan (DOL 2015b). At retirement, the participant receives the balance of the account (DOL 2015b). Since defined contribution plans allow for individual participant accounts, companies generally offer various investment options for participants to select. When a company offers its own securities as an investment option, then the company must file an 11-K in addition to preparing the Form 5500 for the DOL (AICPA 2015).⁴ The 11-K requirement makes defined contribution plan audits a unique setting in which to consider audit-related services. Generally, benefit plans with more than 100 participants are required to obtain an audit of the benefit plan (AICPA EBPAQC 2013). The 11-K includes the benefit plan's audited financial statements and auditor's opinion.

The DOL and the PCAOB oversee the quality of benefit plan audits used with the 11-K filing. Within the DOL, the Employee Benefits Security Administration (EBSA) oversees benefit plans' compliance with ERISA. EBSA assesses the quality of the audit work by statistically sampling from the Form 5500 filings that had an audit opinion attached and then inspecting the audit work papers of the audits selected (DOL 2015a). Additionally, the PCAOB inspects audit firms of public companies that file 11-Ks as evidenced in their 2013 report (PCAOB 2013).⁵

The SEC requires companies to file 11-Ks within 180 days from the plan's year-end (AICPA 2015). The filing deadline for 10-Ks is much earlier with the latest for nonaccelerated

⁴ The Form 5500 is an informational tax return filed by benefit plans each year and submitted to the Internal Revenue Service.

⁵ In their report on the 2007 to 2010 inspection of domestic firms that audit 100 or fewer public companies, the PCAOB offers the following example as an example of a substantive analytical procedure failure: "A firm failed to develop expectations for its substantive analytical procedure by identifying plausible relationships that were reasonably expected to exist. In this instance, the issuer was an employee benefit plan. The firm's primary procedure to test the rollover contributions was a substantive analytical procedure in the form of a comparison of the account balances for the year under audit with the previous three years, and the firm obtained explanations for variances from the issuer." (PCAOB 2013, 32-33)

filers being 90 days after the company's year-end. Therefore, fieldwork for a benefit plan audit generally occurs after the issuance of the company's 10-K with most 11-Ks being filed during June (for companies and plans with a December 31 year-end).⁶ Although the timing of fieldwork for benefit plan audits is typically seen as off-season work for the financial statement audit, benefit plan audits are increasingly overlapping with the interim planning, internal control, and substantive tests of financial statements. Particularly, with the expanded requirements under the post-SOX regime.

Benefit Plan Audit Complexity

Benefit plan audits vary depending on the complexity of the accounting choices made by the company. Areas of complexity include whether the benefit plan is also an employee stock ownership plan (ESOP), whether the benefit plan invests in various types of investments, and whether the benefit plan is subject to a collective bargaining agreement. According to the American Institute of Certified Public Accountants (AICPA) Audit and Accounting Guide for employee benefit plans (2013), "an ESOP is a unique form of defined contribution plan. Under the prohibited transaction statutory exemptions, an ESOP has the ability to borrow money and to concentrate plan investments in qualifying employer securities" (AAG-EBP 5.90). For ESOPs, the additional complexity for the benefit plan audit is the possibility of debt instruments. Cullinan (1997, 1998) includes plan assets in joint ventures and real estate as a proxy for benefit plan audit complexity. I use an indicator variable indicating whether the company has disclosed a joint venture or a real estate holding since these types of investments are hard to value.⁷ Cullinan

⁶ See Panel D of Table 1.

⁷ Under FASB Statement 157 or Accounting Standards Codification (ASC) 820, these types of investments are classified as level 3 investments if they have "significant unobservable inputs" without "significant other observable inputs" (level 2) or "quoted prices in active markets for identical assets" (level 1).

(1997, 1998) also uses an indicator variable for whether the benefit plan is unionized as a proxy for audit complexity.⁸ Unionized plans are subject to collective bargaining agreements that oversee plan activities such as employee eligibility, employer and employee contributions, participant loans, distributions, and termination.

In addition to audit complexity, ESOPs and unionized plans may indicate that the company has additional monitoring or governance. Prior research finds that ESOPs and unions can improve a company's corporate governance (Bova, Dou, and Hope 2015a; Chyz, Leung, Li, and Rui 2013). Specifically, ESOPs have a higher percentage of asset invested in employer securities giving participants (or employees) a more vested interest in the company. Using a sample of 22,452 company-year observations from 1999 through 2007, Bova et al. (2015a) find that employee ownership leads to more disclosure by mitigating the relation between employee bargaining power and company disclosure. Bova et al. (2015a) suggest that employee ownership (measured using ESOPs) plays a role in improving a company's corporate governance through improved transparency with investors. In a similar manner, unionized plans are subject to a collective bargaining agreement and more importantly indicate the presence of a unionized workforce. While Bova et al. (2015a) find that employee bargaining power reduces company disclosure and thus increases information asymmetry between management and investors, employee bargaining power or unions offer other types of monitoring of management. Using a sample of 1,380 industry-year observations from 1983 through 2002, Chyz et al. (2013) find a

⁸ Cullinan (1997, 1998) also uses legal fees to proxy for audit complexity; however, companies are not required to disclose legal fees in their 11-K filing. Additionally, Cullinan (1997, 1998) uses plan amendments as a measure of audit complexity. I do not use plan amendments in my models since plan amendments have become more common in the 2000s with additional IRS and DOL rule changes related to hardship withdrawals and other technical benefit plan administrative changes.

negative association between a company's tax aggressiveness and unions. Chyz et al. (2013) suggest that unions may decrease a company's tax aggressiveness through increased monitoring. Overall, ESOPs and unionized plans provide complexity to the benefit plan audit and additional monitoring.

Increased Services and Monitoring

In addition to ESOPs and unionized plans facilitating additional monitoring of the company, the increased time spent by the same audit firm may also be associated with a higher level of financial statement audit quality. Prior research has identified frequent visits to an audit site by the audit engagement partner and senior management as one of the highest rated attributes of audit quality (Carcello, Hermanson, and McGrath 1992).⁹ Prior research also finds that audit firms that gain more client-specific knowledge through extended tenure with a specific client place "greater constraints on extreme management decisions in reporting of financial performance" (Myers, Myers, and Omer 2003, 779). The increase in client-specific knowledge resulting from additional time spent in audit-related fieldwork, whether that is the audit of the financial statements or the audit of the benefit plan, may provide additional monitoring of the company's financial reporting process as it might constrain management from aggressive financial reporting decisions.

Prior research also finds that auditors geographically further from their clients are associated with a lower audit quality (Jensen, Kim, and Yi 2015). Using a sample of 18,762

⁹ Other attributes noted by Carcello et al. (1992) include: having a knowledgeable audit team, having an audit team with high ethical standards, performing a thorough study of internal control, having an active engagement partner, having a partner and manager knowledgeable about the client's industry, having frequent communication between the audit firm and management, having strict audit firm guidelines against signing off on uncompleted audit procedures, and keeping the client informed about financial reporting developments.

company-year observation from 2000 through 2006, Jensen et al. (2015) find that distance greater than 100 miles between the audit firm and the client is associated with a high level of audit quality as measured by the absolute value of performance matched discretionary accrual. Similarly, Choi, Kim, Qui, and Zang (2012) find that geographic proximity between auditors and clients affects audit quality measured as accrual-based audit quality. Choi et al. (2012) defines geographic proximity based on whether the audit office is in the same metropolitan statistical area (MSA) as the client's headquarters or if the geographic distance between audit firm's city and the client's city is within 100 kilometers. Choi et al. (2012) use a sample of 12,439 observations from 2002 through 2005. They argue that "local auditors can more frequently visit client firms and observe what goes on there directly" (Choi et al. 2012, 46). This contact provides a "mechanism for information exchange" between auditors and their clients (Choi et al. 2012, 46). While it is difficult to distinguish whether results from Jensen et al. (2015) or Choi et al. (2012) are from on-site visits, face-to face meetings, or a better understanding of the local economy, combined with other prior literature it seems likely that increase time spent at a client's office might lead to better monitoring (Jensen et al. 2015; Myers et al. 2003; Carcello et al. 1992). For my setting, providing audit-related services to the existing audit clients increases the likelihood of the auditor spending additional time at the client's office which may improve audit quality.

Benefit Plan Industry Specialist

Prior research argues that industry specialist auditors have greater knowledge of the industry and accounting practices when compared to non-industry specialists resulting in higher audit quality (Dopuch and Simunic 1982). Knechel, Naiker, and Pacheco (2007) finds a positive market reaction to companies switching to a specialist auditor. In my setting, there is only one

“industry” – the benefit plan – since the accounting practices and audit procedures for a benefit plan do not vary based on the company’s industry. Similar to industry specialists being positively associated with audit quality, the DOL suggests that experienced benefit plan auditors reduce the likelihood of deficient accountants’ reports (DOL 2011). The DOL argues, in their most recent annual report on benefit plan audit quality, that the size of an audit firm’s benefit plan practice is positively correlated with audit quality (DOL 2015a).

Audit Quality and Audit-Related Services

Prior research offers two theories to explain the consequences of offering both nonaudit services and financial statement audit services to a specific client: auditor independence and knowledge spillover (Simunic 1984). In light of the large amount of nonaudit services provided by audit firms prior to SOX, regulators questioned the potential detrimental impact on auditor independence. Auditors must be independent in both appearance and in fact (AICPA 1972). Prior research reasons that the increased economic bonding between an audit firm and its client could impair auditor independence and in turn, audit quality (DeAngelo 1981a). Simunic (1984) extends this understanding by adding nonaudit service fees into the equation of potential economic bonding between the audit firm and its client. SOX restricted the offering of a large number of nonaudit services in an attempt to limit potential damage to auditor independence caused by economic bonding between auditor and client. However, many services still remain allowable, including “audit-related” services. Given the size of these services and their relation to other audit services, it was expected that the negative economic bonding effects would be non-significant.¹⁰

¹⁰ In my sample, for companies that disclose benefit plan fees as part of audit-related fees, benefit plan fees are 7.5 percent of audit fees on average.

The joint provision of nonaudit services could also yield knowledge spillover (Paterson and Valencia 2011; Simunic 1984). Knowledge spillovers can include audit efficiencies, economies of scale, and a better understanding of the client's systems (Paterson and Valencia 2011). Simunic (1984, 680) notes that knowledge spillover can occur during the joint provision of nonaudit services since each service "requires knowledge about a company's operations, its industry, etc." For my setting, both the financial statement audit and the benefit plan audit require knowledge about the company and payroll internal controls. Sharing knowledge between engagements adds to the audit's efficiency and the auditor's understanding of the client's system.

Prior research tests the relation between nonaudit services and audit quality (Paterson and Valencia 2011; Kinney et al. 2004; Ashbaugh et al. 2003; Chung and Kallapur 2003; DeFond et al. 2002; Frankel et al. 2002; Simunic 1984). Prior research generally finds no association between nonaudit services and audit quality when nonaudit services are aggregated (Ashbaugh et al. 2003; Chung and Kallapur 2003; DeFond et al. 2002; Simunic 1984).¹¹ However, when the type of nonaudit service is specified, prior research finds that there is a significant negative association between tax services fees and restatements and a positive association between unspecified nonaudit services and restatements (Kinney et al. 2004).

Using a sample of 18,319 companies from 2003 through 2006, Paterson and Valencia (2011) find that recurring auditor-provided tax services have a significant negative association with restatements while audit-related nonaudit services and other nonaudit services have a positive association with restatements. Paterson and Valencia (2011) suggest that knowledge

¹¹ One exception includes Frankel et al. 2002 who document limited evidence on a negative association between nonaudit services and audit quality. Other studies have noted that Frankel et al.'s (2002) findings may have been sensitive to design choice (e.g., Ashbaugh et al. 2003; Chung and Kallapur 2003).

spillover between the audit and tax engagement improves the quality of the audit when the service is recurring. Paterson and Valencia (2011) argue that knowledge spillover is most likely to occur when the nonaudit service is recurring and note that benefit plan audits are a type of audit-related service that is recurring. In contrast, they find that the positive association between audit-related services and restatements is significantly higher for nonrecurring engagements than for recurring ones, but they also find a positive association between recurring audit-related services and restatements.¹² Paterson and Valencia (2011) measure audit-related services using audit-related fees. A limitation with audit-related fees includes the inability to identify the specific audit-related service provided. Audit-related services include many different types of services that might not be recurring but those fees would be classified as recurring if the company has a benefit plan audit provided by its financial statement audit firm.¹³

Benefit plan audits are not likely to be terminated when the principal auditor no longer audits the benefit plan while some of the other types of audit-related services may be less recurrent.¹⁴ The reason that benefit plans may be less likely to be terminated is because the benefit plan represents employees' retirements. Other types of audit-related services (e.g., due

¹² I recalculate Paterson and Valencia's (2011) measure of recurring audit-related fees ("AR_RECUR") and find that my measure of having the same auditor for both the benefit plan audit and the financial statement audit (*SameAU*) has a correlation of 0.41 (p-value of 0.000) with AR_RECUR. Additionally, I find that *SameAU* is negatively correlated with misstatements for my sample period (and for Paterson and Valencia's sample period) while AR_RECUR is not significantly correlated with misstatements for either sample period.

¹³ Paterson and Valencia (2011, 1516) note that audit-related services have many different types of services such as "employee benefit plan audits, accounting consultations and audits in connections with acquisitions, due diligence related to mergers and acquisitions, internal control reviews, attest services that are not required by statute or regulation, and consultations concerning financial accounting and reporting standards."

¹⁴ In a reduced sample of companies for which I can match the companies' 11-K to the Form 5500, only four of the companies indicated on the Form 5500 that they were terminating the plan.

diligence and consultations in connection with mergers and acquisitions) may be more likely to be nonrecurring due to the nature of the service. In my sample, all companies are receiving a recurring audit-related service with the primary distinction being whether the same audit firm is providing both assurance services or if a different audit firm is providing the auxiliary service. In both Kinney et al. (2004) and Patterson and Valencia (2011) the research question centers on whether having a specific type of nonaudit service provided by the principle audit firm is associated with audit quality. I extend this literature by testing whether having the same audit firm for both assurance services affect audit quality, given that companies have a recurring auxiliary service.

Investors view audit-related services more favorably than other types of nonaudit services (Mishra, Raghunandan, and Rama 2005). Mishra et al. (2005) use auditor ratification to test whether investors perceived audit-related, tax, and other fees differently. Using a sample of 248 companies, they find a negative association between audit-related fees and the proportion of votes against auditor ratification. They find a positive association between tax and other fees and the proportion of votes against auditor ratification. Thus, there seems to be a disconnect between investors' perception of audit-related services and prior evidence concerning the link between these services and audit quality, in aggregate. My study attempts to provide evidence that could help to reconcile these divergent views and address the potentially unintended consequences of the SOX restrictions on nonaudit services.

The Changing Provision of Audit-Related Services

As previously discussed, SOX created numerous restrictions on the types of services that can be offered to a financial statement audit client in an effort to constrain the supply of nonaudit services that auditors could provide their audit clients. These restrictions prohibited auditors

from providing services such as bookkeeping, financial information systems design and implementation, and internal audit outsourcing services (SEC 2007). SOX also requires the audit committee to explicitly approve all services provided by the financial statement auditor (SEC 2007). These changes drastically limited the extent of nonaudit services provided to audit clients (Abbott et al. 2011). It also increased the audit committees' sensitivity to the provision of auxiliary services provided by the external auditor (Abbott et al. 2011; Gaynor et al. 2006; Abbott et al. 2003a, 2003b). Some studies suggest that SOX may motivate audit committees to reduce or eliminate nonaudit service fees even if the services are allowed under the SOX guidelines (Abbott et al. 2011; Cook, Huston, and Omer 2008; Omer, Bedard, and Falsetta 2007). Many audit firms did voluntarily begin to shed their offerings of auxiliary services. Combined, these suggest that SOX restrictions may have had unintended consequences on certain segments of the public accounting market place. My study begins by examining the economic characteristics of the benefit plan audit marketplace. I address the following general research question:

RQ 1 How has the provision of benefit plan audit services changed over time?

Company, Audit, and Benefit Plan Characteristics

While prior research has examined the determinants of aggregated nonaudit services, there exists a gap in our understanding of the characteristics of companies that purchase specific types of audit related services. Prior research has examined whether fee differences drive the purchase of benefit plan audits and finds no difference in the benefit plan audit fee structures between Big N and non-Big N audit firms (Cullinan 1997). Using Form 5500 data, Cullinan (1997) tests the determinants of pension plan audit fees and focuses on defined benefit plans rather than defined contribution plans. Cullinan (1998) finds that Big N audit firms do not obtain

fee premiums over non-Big N audit firms for assurance services in the defined benefit plan market.¹⁵ Although Cullinan (1997) does not test whether or not the company engages the same audit firm for the financial statement audit and the benefit plan audit, Cullinan (1997) has a footnote that explains that of the 50 single employer pension plans he selected, 46 (or 92 percent) of the plans had the same auditor for the benefit plan as the financial statement audit.

Additionally, prior research has examined the relation between non-executive employee ownership as measured with ESOPs and corporate risk (Bova, Kolev, Thomas, and Zhang 2015b). Bova et al. (2015b) also use Form 5500 data to create a measure of non-executive employee ownership. Using a sample of 60,235 observations for 9,677 companies for the period 1999 through 2009, Bova et al. (2015b) find a negative association between non-executive holding of stock and corporate risk where corporate risk is measured as the volatility of stock returns. Bova et al. (2015a) also uses Form 5500 data to inform the debate on a union workforce and corporate disclosure and finds that ESOPs mitigate the negative relation between unions and corporate disclosure.

All of these studies consider the benefit plan setting, but none of them tests the benefit plan audit setting in terms of choosing the same audit firm for both the financial statement audit and the benefit plan audit. I extend these studies by testing the characteristics of companies and their benefit plans that choose to engage the same audit firm compared to those that do not.¹⁶ My

¹⁵ Cullinan (1997, 1998) uses fee data for defined benefit plans from the Form 5500. Form 5500 Schedule C requires companies to disclose all fees paid to service providers and does not specify whether the fee is audit-related. Benefit Fees found in Audit Analytics are only available for companies who disaggregate audit-related fees in 10-K fee disclosures and whose benefit plan auditors are primary financial statement auditors. It is interesting that Audit Analytics' definition of Benefit Fees indicates that when benefit plan fees are disclosed, the amount is subtracted from audit-related fees.

¹⁶ Companies choosing financial statement auditors for auxiliary services are most often using Big N auditors for both assurance services; while companies choosing different providers for

next general research question is:

RQ2: What are the company, audit firm, and benefit plan characteristics of companies that engage the *same* financial statement audit firm and benefit plan audit firm?

The Benefit of Benefit Plans?

Prior research tests whether nonaudit services impair auditor independence or provide an environment of knowledge spillover (Paterson and Valencia 2011; Simunic 1984). The nature of the benefit plan audit process is theoretically consistent with the information needs and audit procedures conducted on the company's financial statement audits. This attribute creates a setting where the potential benefit of knowledge spillover could be manifest. As noted previously, benefit plan audits may allow for knowledge spillover given the multiple areas of overlap between employee benefit audit and the company's financial statement audit.

An audit of an employee benefit plan is very similar to an audit of a company's financial statements in that an audit of an employee benefit plan involves planning and supervision, risk assessment and materiality, testing of internal controls, audit testing, evaluation, and reporting (AICPA EBPAQC 2013). Areas of potential overlap between the two audits are found in the planning, risk assessment, testing of internal controls, and some substantive testing. During the planning of an employee benefit audit, an audit firm must gain an understanding of the entity and its environment and obtain an understanding of the plan's internal control (AICPA EBPAQC 2013). For a benefit plan audit, information from the financial statement audit with regards to understanding the entity and understanding the internal control of the payroll transaction cycle can be used. During the risk assessment, one area that presents a risk of material misstatement is

auxiliary service use non-Big N audit firms for benefit plan audits and continue using Big N audit firms for financial statement audits (see Table 2, Panel E).

whether contributions are accurately calculated (AICPA EBPACQ 2013). This risk of material misstatement relates to the payroll transaction cycle. Likewise the testing of the payroll cycle can be used in the testing of internal controls for the benefit plan. The benefit plan audit considers other areas (i.e., investments, benefit payments, compliance, etc.), but the payroll transaction cycle is an important area of overlap between a company's financial statement audit and its benefit plan audit.

The AICPA Audit and Accounting Guide for employee benefit plans (2013) describes some substantive audit procedures that the benefit plan auditor may perform such as:

- (a) determining that the compensation and hours per the payroll records represent actual compensation paid and hours worked based on appropriate supporting evidence.
- (b) reconciling compensation from the payroll records to the [company's] general ledger.
- (c) if participant files are maintained on a decentralized basis or in the custody of the plan administrator, testing whether the data maintained in those files corresponds to the data maintained in employer payroll and personnel files. (AICPA 2013, AAG-EBP 5.155)

These types of substantive audit procedures aid the auditor in gaining a better understanding of the payroll-transaction cycle for future periods. Additionally, if the payroll reconciliation is completed as part of the financial statement audit's substantive audit procedure, then the financial statement audit can share their reconciliation with the benefit plan audit. This knowledge transfer is better facilitated when both the financial statement audit and the benefit plan audit are performed by the same audit firm.

For ESOPs, the debt transaction cycle also becomes an important area of potential overlap between the financial statement audit and the benefit plan audit since ESOPs have the ability to borrow money. The ability to borrow money is a prohibited transaction for other types of defined contribution benefit plans. The AICPA Audit and Accounting Guide for employee benefit plans (2013) offers these additional assertions for auditors to consider when testing ESOP notes payable:

(a) Notes payable exist and are valid obligations of the plan. (b) The notes payable are in accordance with the debt agreements and properly classified and disclosed in accordance with the applicable financial reporting framework. (c) Interest expense is recorded in appropriate amounts and in the proper period. (d) Unallocated shares are properly released to eligible participants. (AICPA 2013, AAG-EBP 5.191)

These additional assertions are followed by examples of identified risks of what can go wrong such as:

(a) Debt is not paid in accordance with the debt agreements. (b) Unallocated shares are not properly released when debt service is paid. (c) When the debt is between the plan and the plan sponsor, contribution and debt repayment transactions may only be “memo” entries, with no actual flow of funds causing inaccurate recordkeeping. (d) Dividends and interest may not be properly allocated depending on the terms of the loan agreement. (e) Shares purchased by the plan may not be at the appropriate value used to secure the debt. (AICPA 2013, AAG-EBP 5.192)

The benefit plan auditor addresses these risks by performing procedures that can be used in the financial statement audit. For example, the benefit plan auditor may summarize the activity of the note payable for the year, gain an understanding of the debt agreement and the underlying documents, confirm the balances and terms with the creditor, recomputed interest, review covenants, and obtain a five-year schedule of maturities (AICPA 2013, AAG-EBP 5.193). The potential overlap between the benefit plan and the company exists in how the debt instrument is structured. The AICPA Audit and Accounting Guide for employee benefit plans (2013) offers the following debt arrangement for a public company with an ESOP, “The employer arranges directly for any financing from a commercial lender. A second loan is made between the employer and the ESOP. This enables the employer to control the tax consequences and employee benefit attributes rather than having the lender dictate such attributes” (AICPA 2013, AAG-EBP 5.93). Given that a debt instrument in an ESOP may also affect the company’s financial statements, there may be knowledge spillover between the two engagements.

Overall, it is possible that the benefit plan audit shares knowledge of payroll-related or

debt-related activities with the financial statement audit. I present a timeline in Figure 1 to illustrate the timing of how the benefit plan audit would influence the financial statement audit given that both the benefit plan and the company have calendar year ends. But just as it is possible that the benefit plan audit helps facilitate the financial statement audit, it is also possible that procedures performed during the financial statement audit (such as a note payable confirmation) might also provide knowledge spillover to the benefit plan audit. I present a timeline in Figure 2 to illustrate the timing of how the financial statement audit would influence the benefit plan audit given that both the benefit plan and the company have calendar year ends. Given the audit knowledge overlap between benefit plan audits and the financial statement audit, I test the following hypotheses:

H1a: Audit quality is positively associated with engaging the *same* financial statement audit firm and benefit plan audit firm.

H1b: Benefit plan audit quality is positively associated with engaging the *same* financial statement audit firm and benefit plan audit firm.

[Insert Figure 1 here]

[Insert Figure 2 here]

Auditor Switching

Prior research documents the switching audit firms can be costly (DeAngelo 1981a; Blouin, Grein, and Rountree 2007; López and Peters 2009). Using a sample of 407 companies, Blouin et al. (2007) find that companies with greater switching costs are more likely to follow their former Arthur Andersen audit team to the new audit firm. Their findings suggest that switching cost are a major consideration when a company changes its audit firm. Blouin et al. (2007, 624) defines switching costs as

the start-up costs incurred by the client for a new audit engagement. These include (1) costs incurred by the client in educating the auditor about the company's operations, systems, financial reporting practices, and accounting issues, (2) costs incurred by the client in selecting a new auditor (e.g., time spent listening to and reviewing proposals), and (3) an increased risk of audit failure.

Blouin et al. (2007)'s definition can be applied to both the financial statement audit and the benefit plan audit. Both types of audits have substantial switching cost associated with them although the increased risk of audit failure may be higher for the financial statement audit rather than the benefit plan audit. Using a sample of 10,238 company-year observations, López and Peters (2009) find that companies with December year-ends have a lower likelihood of switching their financial statement auditor than non-December year-end companies. They suggest that this result is consistent with there being higher switching transaction costs for auditors and their busy season companies. As with any decision, companies are likely to consider the cost and benefits of change before making the final decision. And this is not to say that the decision is one-sided with the client always making the decision to end a relationship with their auditor. In my study, I do not distinguish between client dismissals and auditor resignations. However, based on prior literature (Blouin et al. 2007; López and Peters 2012), there are switching costs and these are costs that companies are likely to consider when determining whether they want to change their audit firm or not. Two of the costs listed by Blouin et al. (2007) are costs that will be known within a year of choosing a new auditor and these costs vary by client. They are the cost of educating the new auditor about the company and the cost of selecting a new auditor. It is plausible that the perceived cost are higher than the actual cost and that once a company knows that the actual cost are lower, a company may be more willing to switch their auditor in the future. On the other hand, it is plausible that the perceived cost are lower than the actual cost and once a company knows that the actual cost are higher, the company may be less willing to switch

their auditor in the future. The benefit plan setting provides a way to determine if switching the benefit plan auditor (an audit-related service) is associated with future changes of the financial statement auditor. Given that perceived switching cost may be higher than actual switching cost or actual switching cost are higher than perceived switching cost, I test the following hypotheses (in the null):

H2: Financial statement auditor switching is not associated with switching the benefit plan auditor in the prior period.

III. SAMPLE SELECTION, DATA COLLECTION, AND DESCRIPTIVES

Sample Selection and Data Collection

I test whether having the financial statement auditor provide an audit-related service affects audit quality as measured by missed misstatements (as revealed through future restatements), given that all of the companies in my sample have a benefit plan. My sample period is 2004 through 2012. I use the Audit Analytics database to identify the service provider of the benefit plan audit (as evidenced by the audit opinion signature). I make a number of adjustments to the benefit plan database to ensure that I have the correct audit firm for the calculation of my variable of interest, *SameAU*. I begin by verifying all audit firm changes within the benefit plan database and removing observations when the audit firm is not identifiable.¹⁷ I also use the PCAOB's website to identify audit firm mergers and name changes that occur

¹⁷ Twenty-four company-year observations recorded the financial statement audit firm rather than the benefit plan audit firm, 47 company-year observations recorded the benefit plan audit firm as unknown when the audit firm was identified in the filing; 16 company-year observations recorded a benefit plan audit firm with a name similar to the actual benefit plan audit firm; 24 company-year observations recorded an audit firm as unknown but the prior period and the next known period have the same auditor and the intermediate years do not indicate an auditor change; 2 company-year observations recorded an audit firm as unknown but the next period had a change in audit firm with the prior audit firm signing the prior audit opinion; and 17 company-year observations are removed because the audit firm is unknown.

during my sample period to ensure that I have properly identified the audit firm. Companies are not required to issue an 8-K when changing benefit plan audit firms (although some do issue an 8-K for such changes).

I use the Audit Analytics database to identify companies that restated financial reports originally filed for fiscal years 2004 through 2012.¹⁸ I include restatements occurring for accounting rule application. I use the Audit Analytics database for auditor-related controls, Compustat for company-related controls, and CRSP for returns data.

I summarize the sample selection process in Table 1, Panel A. I begin with 11,641 company-year observations from the Audit Analytics' Benefit Plan Opinions Database. I exclude observations with data missing in Compustat and observations missing control variables. I also exclude observations where the benefit plan opinion was signed on the same day as the financial statement opinion and where the benefit plan opinion was signed prior to the financial statement opinion. These observations represent opportunities for the benefit plan audit to provide knowledge spillover for the current financial statement audit rather than the future financial statement audit which represents the majority of the observations. The most common timing of the financial statement audit and the benefit plan audit is for both the company and the benefit plan to have a December 31 year-end with the company's financial statements filed no later than 90 days after fiscal year-end and the benefit plan's financial statements filed no later than 180 days after fiscal year-end.¹⁹ The remaining loss of observations is due to a lack of data for the construction of control variables.

¹⁸ My window for announcements of such restatements extends through April 15, 2015, allowing slightly over 2 years after the last 2012 fiscal year-end for a restatement to be announced.

¹⁹ Panel C of Table 2 provides the frequency of benefit plan signatures during my sample period. In untabulated results, 76 percent of my sample have December year ends for both the company and the benefit plan.

I hand collect data for some of the benefit plan control variables. With the help of Direct Edgar, I search all 11-K filings associated with my sample. I search for key words and for more ambiguous terms (i.e. collective bargaining agreement or union), I look at each 11-K to determine whether the company's plan was subject to a collective bargaining agreement or if the document indicated that those under a collective bargaining agreement were excluded. I also found that not every result with the term "union" had a union or collective bargaining agreements. Several benefit plans invested in "Union Pacific" and noted each investment in the filing. For the 11-K filings in which the employees subject to a collective bargaining agreement were excluded from participation in the benefit plan or the term "Union" was a proper name (i.e. name of company, address, etc.), I code those observations as not having a collective bargaining agreement or union. I also searched for benefit plan restatements, joint venture investments, real estate investments, and ESOPs (or employee stock ownership plans).

Since the Direct Edgar data is dependent on the benefit plan disclosing information in the 11-K filing, one of the limitations in using that data is that observations that I code as not having an attribute may have the attribute (i.e. joint venture, real estate, ESOP) and just not disclosed that they have the attribute. To address this limitation, I use data from the Form 5500 from the DOL's website. Since the Form 5500 is an informational return filed by benefit plans to the IRS, I feel more confident in the identification of benefit plans that have collective bargaining agreements, joint ventures, and real estate investments. However, the downside of using the Form 5500 data is that it further reduces my sample and my sample period. To obtain these controls I use data for the years 2009 through 2012. I begin with 2009 since the Form 5500 changed and the variable names given by the DOL for elements in the Form 5500 changed from 2008 to 2009. The Form 5500 data includes a company identification number (EIN) for each

observation. I match the company's Form 5500 EIN with the company's EIN in Compustat. This procedure results in a match for 2,489 observations for the period 2009 through 2012 out of 3,640 observations in the larger sample from the same time period.²⁰

[Insert Table 1 here.]

Descriptive Statistics

Panel B of Table 1 shows a distribution of observations by year and Panel C provides a distribution of observations by industry. I classify observations into 12 industry classifications following Fama and French (2015). My observations appear to be slightly declining during my sample period, but all years have at least 9.8 percent of the total number of observations. My sample covers a range of industries with the largest concentration in the financial industry (27.79 percent) and the smallest concentration in consumer durables (2.75 percent). Panel D of Table 1 shows a distribution of observations by the year and month of the benefit plan opinion signature. For every year of my sample, the most common month for benefit plan opinions to be signed is June, which is consistent with most benefit plans having a year-end of December 31 and a due date for the 11-K filing 180 days later on June 30.²¹

Panel A of Table 2 presents my descriptive statistics. Fifty-nine percent of the observations in the sample use the same audit firm for both the financial statement audit and the benefit plan audit. Three percent of the observations have a change in financial statement auditor. Seven percent of the observations have a change in benefit plan auditor. Thirty-five percent of my sample are benefit plan city experts. Eighty-five percent of my sample use a Big N audit firm

²⁰ In untabulated analyses, I test the correlation between each of the Form 5500 variables and the Direct Edgar variables and find a positive and significant correlation for all of them during the timer period 2009 through 2013.

²¹ In untabulated analyses, 8,377 company-year observations have a benefit plan year-end of December 31.

for the financial statement audit while only 50 percent of my sample use a Big N auditor for the benefit plan audit. Only four percent of the benefit plans are signed during the first three months of the year. On average there are approximately 122 days between the signature date of the financial statement opinion and the signature date of the benefit plan opinion. Twenty percent of the reduced Form 5500 sample have assets invested in joint ventures while thirteen percent of my total sample disclose having assets invested in joint ventures. Five percent of the reduced Form 5500 sample have assets invested in real estate while fifteen percent of my total sample disclose having assets invested in real estate. Thirty-one percent of the reduced sample have collective bargaining agreements associated with the benefit plan (*Union*) while twenty-one percent of my total sample disclose having a collective bargaining agreement.

Panel B of Table 2 presents a difference in means between companies engaging a different audit firm and companies engaging the same audit firm. Companies with the same audit firm have a lower percentage of Big N audit firms auditing their financial statements (p-value < 0.01). Companies with the same audit firm are larger, have fewer losses, have greater influence with the audit firm, have larger audit fees, and have larger tax fees (p-values < 0.01). Companies with the same audit firm also have fewer days between the financial statement opinion and the benefit plan opinion (p-value < 0.01). I present Pearson correlations in Panel C of Table 2.

SameAU and the lag of *SameAU* are negatively associated with the likelihood of *Misstatement*.

[Insert Table 2 here.]

To address my first research question of how the provision of benefit plan audit services has changed over time, I present univariate results that suggest an overall trend in the provision of benefit plan audit services. I present the distribution of observations of companies engaging the same audit firm versus companies choosing a different auditor in Panel D of Table 2. The

percentage of companies using the same audit firm for the benefit plan audit decreases each year from around 72 percent in 2004 to 51 percent in 2012. I then disaggregate the data from Panel D based on whether the financial statement audit firm is a Big N audit firm or not and whether the benefit plan audit firm is a Big N audit firm or not. Most companies that engage the same audit firm for both assurance services use a Big N audit firm. Most companies that engage a different audit firm for the benefit plan audit use a Big N audit firm for the financial statement audit and a non-Big N audit firm for the benefit plan audit.

I present Figure 3 to illustrate the percentage of companies with the same Big N audit firm for both their financial statement audit and their benefit plan audit. There appears to be a steady decline since 2004 as either more companies choose to have a non-Big N audit firm perform their benefit plan audit or Big N audit firms are choosing to diversify their practices away from benefit plan audits.

[Insert Figure 3 here.]

I present Figure 4 to illustrate the provision of benefit plan audits. It appears that while each of the Big N's market share of benefit plan audits has decreased slightly during my sample period, collectively the decline has allowed for the non-Big N accounting firms to increase their collective market share from eight percent in 2004 to sixteen percent in 2012.

[Insert Figure 4 here.]

IV. RESEARCH DESIGNS

Characteristics of Having the Same Auditor

My second research question focuses on the characteristics of the company, audit firm, and benefit plan. To test my second research question, I estimate the following model using a logistic regression where my dependent variable is *SameAU_{it}*:

$$\begin{aligned}
\text{SameAU}_{it} = & \alpha_0 + \alpha_1 \text{Size}_{it} + \alpha_2 \text{Growth}_{it} + \alpha_3 \text{ChangeEMP}_{it} + \alpha_4 \text{Loss}_{it} + \alpha_5 \text{BigN}_{it} + \alpha_6 \text{Influence}_{it} \\
& + \alpha_7 \text{Audit Tenure}_{it} + \alpha_8 \text{Audit Fees}_{it} + \alpha_9 \text{Tax Fees}_{it} + \alpha_{10} \text{Other Fees}_{it} + \alpha_j \text{IndustryFE} + \\
& \alpha_k \text{YearFE} + \varepsilon_{it}
\end{aligned} \tag{1}$$

where:

- SameAU_{it}* = an indicator variable set equal to one if a company engages the same audit firm for its benefit plan audit and financial statement audit, and zero otherwise;
- Size_{it}* = the natural log of total assets;
- Growth_{it}* = the percentage change in total assets;
- ChangeEMP_{it}* = the abnormal change in employees, defined as the percentage change in the number of employees less the percentage change in total assets [(EMP_t – EMP_{t-1})/EMP_{t-1}] – [(AT_t – AT_{t-1})/AT_{t-1}];
- Loss_{it}* = an indicator variable set equal to one if the company reports net income less than zero, and zero otherwise;
- BigN_{it}* = an indicator variable set equal to one if a company engages a Big N audit firm for its financial statement audit, and zero otherwise²²;
- Influence_{it}* = the sum of a company’s audit and audit-related fees divided by the total audit and audit-related fees received by the local audit office;
- Audit Tenure_{it}* = an indicator variable set equal to one if a company has engaged its financial statement auditor for three years or less;
- Audit Fees_{it}* = the natural log of audit fees;
- Tax Fees_{it}* = the natural logarithm of Tax-related Fees; and
- Other Fees_{it}* = the natural logarithm of Other Fees.

I include year and industry fixed effects and use robust standard errors clustered by company (Petersen 2009). I winsorize all continuous variables at plus and minus one percent. To answer my second research question, I test whether different types of characteristics are associated with

²² Big N refers to Deloitte & Touche, Ernst & Young, KPMG and PricewaterhouseCoopers.

having the same audit firm for the financial statement audit and the benefit plan audit. I first test company and audit firm characteristics listed in Equation (1). Then I test benefit plan characteristics (see Equation (2)).

Company Characteristics

Company characteristics that might affect whether or not a company chooses to have their financial statement audit firm perform the benefit plan audit include company size, growth, change of employees, and loss. Larger companies are less likely to be swayed in choosing a low cost provider of benefit plan audits and so may choose to avoid auditor switching cost (in relation to the benefit plan audit) and retain their financial statement auditor. On the other hand, larger companies may also be more likely to choose a different benefit plan audit firm if the company is concerned with the perception of auditor independence that might be tarnished by increased “audit-related” fees. Growth companies and companies reporting a loss are more likely to want to use a lower cost provider of benefit plan audits. On the other hand, growth and loss companies may be more likely to use the same audit firm if the company is able to negotiate a price based on the assumed synergies that the audit firm would have by performing both engagements. The percentage change of employees may represent either a growth or loss situation, but more importantly it might also affect the complexity of the benefit plan depending on the magnitude of the change of employees.

Audit Characteristics

Audit characteristics that might affect whether or not a company chooses to have their financial statement audit firm perform the benefit plan audit include whether the audit firm is a Big N audit firm, the influence the company has on the audit firm office, the audit firm’s tenure (length of time performing the financial statement audit), and fees.

DeAngelo (1981b) argues that audit quality is not independent of firm size. Larger auditors are assumed to have more valuable reputations that incentivize them to perform high-quality audits (DeAngelo 1981b). Prior research finds that Big N auditors are associated with higher audit quality (DeFond and Zhang 2014; Lennox and Pittman 2010; Pittman and Fortin 2004) and are perceived to have higher audit quality (Teoh and Wong 1993). It is conceivable that companies selecting a Big N audit firm for their financial statement audit might also select the same audit firm for their benefit plan audit in expectation of higher audit quality. However, prior research finds that audit committees concerned with the perception of auditor independence may limit the amount of nonaudit services provided by their financial statement auditor (Abbott et al. 2011).²³

From the auditor's perspective (rather than the audit committee's perspective), the more influence the company has on the audit firm office, the more likely the audit firm will want to keep other audit providers away when the "audit-related" service is allowable if approved by the audit committee. And so the expectation of the audit characteristics is unknown as it depends on the outlook of the audit committee and the audit firm.

Benefit Plan Characteristics

Benefit plan characteristics that might affect whether or not a company chooses to have their financial statement audit firm perform the benefit plan audit include the busyness of the benefit plan audit firm and the complexity of the benefit plan. To test these additional characteristics, I estimate the following model using a logistic regression.

²³ For example, Baxter International switched benefit plan audit firms from PricewaterhouseCoopers to Crowe Horwath LLP and disclosed on its 2009 Form 5500 Schedule C that it "made decision to separate the benefit plan audit process from the corporate audit process; as we understand it, having separate auditors is [the] market[s] best practice."

$$\begin{aligned}
\text{SameAU}_{it} = & \beta_0 + \beta_1 \text{Size}_{it} + \beta_2 \text{Growth}_{it} + \beta_3 \text{ChangeEMP}_{it} + \beta_4 \text{Loss}_{it} + \beta_5 \text{BigN}_{it} + \beta_6 \text{Influence}_{it} \\
& + \beta_7 \text{Audit Tenure}_{it} + \beta_8 \text{Audit Fees}_{it} + \beta_9 \text{Tax Fees}_{it} + \beta_{10} \text{Other Fees}_{it} + \beta_{11} \text{Busy_bp}_{it} \\
& + \beta_{12} \text{Number_of_Plans}_{it} + \beta_{13} \text{Days_bw_opinions}_{it} + \beta_{14} \text{Union}_{it} + \beta_{15} \text{Real Estate}_{it} \\
& + \beta_{16} \text{Joint Ventures}_{it} + \beta_{17} \text{ESOP}_{it} + \beta_j \text{IndustryFE} + \beta_k \text{YearFE} + \varepsilon_{it} \tag{2}
\end{aligned}$$

where:

- Busy_bp_{it}* = an indicator variable set equal to one if the company's benefit plan audit opinion is signed during the months of January through March, and zero otherwise;
- Number_of_Plans_{it}* = the natural log of the number of benefit plans of a company;
- Days_bw_opinions_{it}* = the natural log of the number of days between the signature date of the company's financial statement audit opinion and the signature date of the company's benefit plan audit opinion;
- Union_{it}* = an indicator variable set equal to one if the company's benefit plan discloses in its 11-K filing that it is subject to a collective bargaining agreement;
- Union_5500_{it}* = an indicator variable set equal to one if the company's benefit plan has unionized participants, and zero otherwise (Form 5500);
- Real Estate_{it}* = an indicator variable set equal to one if the company's benefit plan discloses in its 11-K filing that it has real estate investments;
- Real Estate_5500_{it}* = an indicator variable set equal to one if the company reports an ending asset balance associated with real estate, and zero otherwise (Form 5500);
- Joint Venture_{it}* = an indicator variable set equal to one if the company's benefit plan discloses in its 11-K filing that it has joint venture investments;
- Joint Venture_5500_{it}* = an indicator variable set equal to one if the company reports an ending asset balance associated with a joint venture, and zero otherwise (Form 5500);
- ESOP_{it}* = an indicator variable set equal to one if the company's benefit plan discloses in its 11-K filing that it has an employee stock ownership plan or an ESOP; and

all other variables have been previously defined and are included in Appendix A. I include year

and industry fixed effects and use robust standard errors clustered by company (Petersen 2009). I winsorize all continuous variables at plus and minus one percent. I proxy for busyness of the audit firm with *Busy_bp*, *Number_of_Plans*, *Days_bw_opinions*. I proxy for benefit plan complexity with *Union*, *Real Estate*, *Joint Venture*, and *ESOP* (see Section II for a detailed discussion on how these proxy for benefit plan complexity).

I control for the busyness of the auditor during the benefit plan engagement by including an indicator variable that captures whether the benefit plan audit opinion was signed during the traditional “busy season” or the first three months of the calendar year. The number of benefit plans of the company and the number of days between the signature date of the financial statement audit opinion and the date of the benefit plan audit opinion also proxy for different aspects of the auditor’s busyness. It is possible that if the audit firm has other more lucrative engagements during the first three months of the year that the audit firm might decline to audit a benefit plan.²⁴ However, the audit firm might be persuaded to perform the audit at a premium or if their financial statement audit client cannot find another audit firm to engage for its benefit plan audit. Likewise, a large number of benefit plan audits or a short period between the financial statement audit and the benefit plan audit might constrain audit firm resources. However, I have no expectation of how benefit plan auditor busyness is associated with having the same auditor perform both the financial statement audit and the benefit plan audit.

Audit Quality

In my first hypothesis (H1a), I hypothesize that engaging the same audit firm for the

²⁴ I present the frequency of the signature date of the benefit plan opinion in Table 1, Panel D. It is interesting to note in this table that there is an uptick in the number of benefit plan opinions signed in December prior to busy season and a reduced number signed during January and February. This phenomenon suggests that audit firms would prefer to move benefit plan engagements out of their traditional “busy season”.

financial statement audit and the benefit plan audit is positively associated with audit quality. To test this hypothesis, I follow Paterson and Valencia (2011) estimating the following logistic regression where my dependent variable is *Misstatement_{it}*:

$$\begin{aligned}
 Misstatement_{it} = & \gamma_0 + \gamma_1 SameAU_{it-1} + \gamma_2 Size_{it} + \gamma_3 MA_{it} + \gamma_4 BTM_{it} + \gamma_5 Leverage_{it} + \gamma_6 FIN_{it} \\
 & + \gamma_7 Loss_{it} + \gamma_8 BigN_{it} + \gamma_9 Audit\ Fees_{it} + \gamma_{10} Tax\ Fees_{it} + \gamma_{11} Other\ Fees_{it} \\
 & + \gamma_j IndustryFE + \gamma_k YearFE + \varepsilon_{it}
 \end{aligned} \tag{3}$$

where:

- Misstatement_{it}* = an indicator variable set equal to one if a company's financial statements for the year are subsequently restated, and zero otherwise;
- MA_{it}* = an indicator variable set equal to one if a company had an acquisition or a merger, and zero otherwise;
- BTM_{it}* = the book value of equity (CEQ) divided by the market value of equity (CSHO x PRCC_F);
- Leverage_{it}* = total liabilities scaled by total assets;
- FIN_{it}* = an indicator variable set equal to one if the company issued more than \$10 million of debt or equity during the year, and zero otherwise; and

all other variables have been previously defined and are also defined in Appendix A. I include year and industry fixed effects and use robust standard errors clustered by company (Petersen 2009). I winsorize all continuous variables at plus and minus one percent. Given that knowledge spillover may exist between the financial statement audit and the benefit plan audit, I expect the coefficient for *SameAU* to be negative. I include all company and financial statement audit-related variables at time t and all benefit plan related variables at time t-1 given that the benefit plan audit typically occurs after the financial statement audit and so any potential knowledge spillover from the benefit plan audit to the financial statement audit would likely follow the example in Figure 1.

Using Paterson and Valencia's (2011) misstatement model, I control for various company

and auditor characteristics that are likely to affect the occurrence of a misstatement. Paterson and Valencia (2011) provide this model as an alternative to Kinney et al.'s (2004) misstatement model that only controlled for size. I do not control for audit-related fees or benefit fees since there is likely to be a mechanical relation between these types of fees and my variable of interest (*SameAU*).

I add control variables to model (3) in order to ensure that my results are robust. I include audit firm characteristics from Francis et al. (2013). I also add control variables from Lobo and Zhao's (2013) restatement risk model. Thus, I estimate the following logistic regression where my dependent variable is *Misstatement_{it}*:

$$\begin{aligned}
 Misstatement_{it} = & \delta_0 + \delta_1 SameAU_{it-1} + \delta_2 Size_{it} + \delta_3 MA_{it} + \delta_4 BTM_{it} + \delta_5 Leverage_{it} + \delta_6 FIN_{it} \\
 & + \delta_7 Loss_{it} + \delta_8 BigN_{it} + \delta_9 Audit\ Fees_{it} + \delta_{10} Tax\ Fees_{it} + \delta_{11} Other\ Fees_{it} \\
 & + \delta_{12} Switch_{it} + \delta_{13} Influence_{it} + \delta_{14} National_Leader_{it} + \delta_{15} City_Leader_{it} \\
 & + \delta_{16} Total_Accrual_{it} + \delta_{17} ChangeREC_{it} + \delta_{18} ChangeINV_{it} + \delta_{19} Soft_Assets_{it} \\
 & + \delta_{20} ChangeSALE_{it} + \delta_{21} ChangeROA_{it} + \delta_{22} ChangeEMP_{it} + \delta_{23} Lease_{it} \\
 & + \delta_{24} ABRET_{it} + \delta_{25} LagABRET_{it} + \delta_j IndustryFE + \delta_k YearFE + \epsilon_{it} \quad (4)
 \end{aligned}$$

where:

Switch_{it} = an indicator variable set equal to one if a company changes its financial statement auditor, and zero otherwise;

Influence_{it} = the sum of a company's audit and audit-related fees divided by the total audit and audit-related fees received by the local audit office;

National_Leader_{it} = an indicator variable set equal to one if an audit firm is the number one audit firm in an industry in terms of aggregated audit fees for a specific fiscal year, and zero otherwise;

City_Leader_{it} = an indicator variable set equal to one if an audit firm office is the number one audit firm in terms of aggregated client audit fees in an industry within that city for a specific fiscal year, and zero otherwise;

| | | |
|-----------------------------------|---|---|
| <i>Total_Accrual_{it}</i> | = | the change in noncash assets from year t-1 to year t divided by average total assets where noncash assets equal $(AT_t - CHE_t) - (LT_t + PSTK_t)$; |
| <i>ChangeREC_{it}</i> | = | the change in accounts receivable from year t-1 to year t; |
| <i>ChangeINV_{it}</i> | = | the change in inventory from year t-1 to year t; |
| <i>Soft_Assets_{it}</i> | = | the sum of soft assets $(AT_t - PPENT_t - CHE_t)$ scaled by total assets; |
| <i>ChangeSale_{it}</i> | = | the percentage change in cash sales where cash sales equal sales less the change in receivables from year t-1 to year t; |
| <i>ChangeROA_{it}</i> | = | the change in ROA from year t-1 to year t where ROA is measured as the return (IB) on lagged total assets (AT_{t-1}) ; |
| <i>ChangeEMP_{it}</i> | = | the abnormal change in employees, defined as the percentage change in the number of employees less the percentage change in total assets $[(EMP_t - EMP_{t-1})/EMP_{t-1}] - [(AT_t - AT_{t-1})/AT_{t-1}]$; |
| <i>Lease_{it}</i> | = | an indicator variable set equal to one if the company's future operating lease obligations are greater than zero, and zero otherwise; |
| <i>ABRET_{it}</i> | = | the annual buy-and-hold stock return less annual buy-and-hold value weighted NYSE-AMEX-NASD index return; |
| <i>LagABRET_{it}</i> | = | ABRET lagged by one year; and |

all other variables have been previously defined and are also defined in Appendix A. I include year and industry fixed effects and use robust standard errors clustered by company (Petersen 2009). I winsorize all continuous variables at plus and minus one percent. Given that knowledge spillover may exist between the financial statement audit and the benefit plan audit, I expect the coefficient for *SameAU* to be negative.

I also test whether benefit plan audit complexity moderates my variable of interest, *SameAU*. To test this I modify model (3) by controlling for a specific type of benefit plan audit complexity and the interaction between that type of complexity and my variable of interest. I estimate the following logistic regression where my dependent variable is *Misstatement_{it}*:

$$\begin{aligned}
Misstatement_{it} = & \lambda_0 + \lambda_1 SameAU_{it-1} + \lambda_2 Size_{it} + \lambda_3 MA_{it} + \lambda_4 BTM_{it} + \lambda_5 Leverage_{it} + \lambda_6 FIN_{it} \\
& + \lambda_7 Loss_{it} + \lambda_8 BigN_{it} + \lambda_9 Audit Fees_{it} + \lambda_{10} Tax Fees_{it} + \lambda_{11} Other Fees_{it} \\
& + \lambda_{12} Complexity_{it-1} + \lambda_{13} SameAU \times Complexity + \lambda_j IndustryFE \\
& + \lambda_k YearFE + \varepsilon_{it}
\end{aligned} \tag{5}$$

where:

$Complexity_{it-1}$ = either $ESOP_{it-1}$, $Union_{it-1}$, $Real Estate_{it-1}$, or $Joint Venture_{it-1}$;

$SameAU \times Complexity$ = interaction of $SameAU_{it-1}$ and $Complexity_{it-1}$; and

all other variables have been previously defined and are also defined in Appendix A. I include year and industry fixed effects and use robust standard errors clustered by company (Petersen 2009). I winsorize all continuous variables at plus and minus one percent. The coefficient λ_{13} represents the mitigating effect benefit plan audit complexity has on the relation between having the same auditor for both the financial statement audit and the benefit plan audit and audit quality. Given that knowledge spillover may exist between the financial statement audit and the benefit plan audit, I expect the coefficient for $SameAU$ to be negative, but I expect the interaction term to have a positive coefficient.

To better test the possibility of knowledge spillover, I test whether having the same audit firm for the financial statement audit and the benefit plan audit affects specific types of misstatements, particularly payroll-related misstatements and debt-related misstatements. I choose these two categories of misstatements since these are the audit areas that are most likely to benefit from additional audit procedures being performed during the year. I estimate the following logistic regression where my dependent variable is $Type\ of\ Misstatement_{it}$:

$$\begin{aligned}
\text{Type of Misstatement}_{it} = & \varphi_0 + \varphi_1 \text{SameAU}_{it-1} + \varphi_2 \text{Size}_{it} + \varphi_3 \text{MA}_{it} + \varphi_4 \text{BTM}_{it} + \varphi_5 \text{Leverage}_{it} \\
& + \varphi_6 \text{FIN}_{it} + \varphi_7 \text{Loss}_{it} + \varphi_8 \text{BigN}_{it} + \varphi_9 \text{Audit Fees}_{it} + \varphi_{10} \text{Tax Fees}_{it} \\
& + \varphi_{11} \text{Other Fees}_{it} + \varphi_j \text{IndustryFE} + \varphi_k \text{YearFE} + \varepsilon_{it}
\end{aligned} \tag{6}$$

where:

- Type of Misstatement_{it}* = either *Payroll_Misstatements_{it}* or *Debt_Misstatements_{it}*;
- Payroll_Misstatements_{it}* = an indicator variable set equal to one if a company's financial statements for the year are subsequently restated for a payroll-related misstatement,²⁵ and zero otherwise;
- Debt_Misstatements_{it}* = an indicator variable set equal to one if a company's financial statements for the year are subsequently restated for a debt-related misstatement,²⁶ and zero otherwise; and

all other variables have been previously defined and are also defined in Appendix A. I include year and industry fixed effects and use robust standard errors clustered by company (Petersen 2009). I winsorize all continuous variables at plus and minus one percent. Given that knowledge spillover may exist between the financial statement audit and the benefit plan audit, I expect the coefficient for *SameAU* to be negative.

Benefit Plan Audit Quality and Benefit Plan Quality

Benefit Plan Audit Quality

In the second part of my first hypothesis (H1b), I hypothesize that engaging the same

²⁵ Using the Non-Reliance Restatement database in Audit Analytics, I categorize expense restatements (7), liabilities restatements (12), stock based compensation restatements (17), deferred stock restatements (39 and 48), and pension restatements (11) as payroll-related restatements since the payroll transaction cycle general includes compensation expense, payroll accruals, and additional types of compensation (i.e. stock based or deferred stock). I include pension restatements since pensions are another type of benefit plan.

²⁶ Using the Non-Reliance Restatement database in Audit Analytics, I categorize debt, quasi-debt, warrants and equity security issues restatements (4), debt and/or equity classification issues restatements (26), loan covenant violations/issues restatements (27), and financial statement, footnote, and segment disclosure restatements (36) as debt-related restatements since these types of restatements are all closely related to the debt transaction cycle and the financial reporting of debt-related transactions.

audit firm for the financial statement audit and the benefit plan audit is positively associated with benefit plan audit quality, I estimate the following logistic regression:

$$\begin{aligned}
 \text{BenefitPlanAuditQuality}_{it} = & \theta_0 + \theta_1 \text{SameAU}_{it} + \theta_2 \text{Size}_{it} + \theta_3 \text{Growth}_{it} + \theta_4 \text{ChangeEMP}_{it} \\
 & + \theta_5 \text{Loss}_{it} + \theta_6 \text{BigN_bp}_{it} + \theta_7 \text{Influence}_{it} + \theta_8 \text{BenefitPlanCitySpecialist}_{it} \\
 & + \theta_9 \text{AuditTenure_bp}_{it} + \theta_{10} \text{Busy_bp}_{it} + \theta_{11} \text{Number_of_Plans}_{it} \\
 & + \theta_{12} \text{Days_bw_opinions}_{it} + \theta_{13} \text{Union}_{it} + \theta_{14} \text{Real Estate}_{it} + \theta_{15} \text{Joint Ventures}_{it} \\
 & + \theta_{16} \text{ESOP}_{it} + \theta_j \text{IndustryFE} + \theta_k \text{YearFE} + \varepsilon_{it}
 \end{aligned} \tag{7}$$

where:

$\text{BenefitPlanAuditQuality}_{it}$ = either $\text{BP_Restatements}_{it}$ or Late Filings_{it} ;

$\text{BP_Restatements}_{it}$ = an indicator variable set equal to one if a company discloses in its 11-K filing that its benefit plan's financial statements have been restated, and zero otherwise;

Late Filing_{it} = an indicator variable set equal to one if the company's benefit plan audit was filed more than 180 days after the benefit plan's year-end, and zero otherwise;

BigN_bp_{it} = an indicator variable set equal to one if a company engages a Big N audit firm for its benefit plan audit, and zero otherwise;

$\text{BenefitPlanCitySpecialist}_{it}$ = an indicator variable set equal to one if an audit firm audits at least 30 percent of the benefit plans (as evidenced by 11-K filings) for a given city and year provided that the audit firm audits more than one benefit plan for that same city and year, and zero otherwise;

$\text{AuditTenure_bp}_{it}$ = an indicator variable set equal to one if a company engages an audit firm for its benefit plan audit for three years or less, and zero otherwise; and

all other variables have been previously defined and are also defined in Appendix A. I include year fixed effects and use robust standard errors clustered by company (Petersen 2009). I do not include industry fixed effects since my dependent variable is benefit plan-related and benefit plans and their audits generally do not vary by industry. I winsorize all continuous variables at plus and minus one percent. Given that knowledge spillover may exist between the benefit plan

audit and the financial statement audit, I expect the coefficient for *SameAU* to be negative. I include all variables at time t given that the financial statement audit typically occurs prior to the benefit plan audit and so the knowledge spillover would likely follow the example in Figure 2.

I include variables that might affect the likelihood of a benefit plan restatement or a late filing. I include the company characteristics of size, growth, change in number of employees, and loss like I included in model (1). A larger company may have better benefit plan financial reporting qualities and thus less likely to have restatements or late filings. On the other hand a larger company may also have more overhead or a decentralized payroll process which might be associated with a high likelihood of restatements or late filings. A company with high growth, significant change in employees, or loss might be less likely to be associated with a high level of benefit plan financial reporting quality and so more likely to have restatements or late filings. However, given the lack of prior research on benefit plan audit quality or benefit plan financial reporting quality, it is unclear what the predication of the control variables should be in these models.

I include *BigN_bp* and *Influence* as potential audit-related characteristics that might affect the likelihood of benefit plan restatements or late filings. Given that the Big N are associated with higher audit quality, it seems reasonable to predict that the Big N would also have higher audit quality for benefit plan audits. On the other hand, if all audit firms have similar benefit plan audit characteristics, then it is not certain that having a Big N audit firm for the benefit plan will improve the audit quality of the benefit plan.

I measure benefit plan expertise based on the number of benefit plans for a particular city and year. I use the number of benefit plans rather than benefit plan fees since benefit plan fees

are unavailable.²⁷ Even though prior literature uses industry in their measure of audit firm expertise (Francis et al. 2013; Francis and Yu 2009), I do not use industry in the measure of benefit plan expertise since benefit plan audits are very similar across industries with no industry related differences. The DOL, in a brochure to benefit plan administrators, discusses whether a benefit plan auditor should have experience in auditing employee benefit plans (DOL 2011). The DOL (2011, 3) states that:

One of the most common reasons for deficient accountants' reports is the failure of the auditor to perform tests in areas unique to employee benefit plan audits. The more training and experience that an auditor has with employee benefit plan audits, the more familiar the auditor will be with benefit plan practices and operations, as well as the special auditing standards and rules that apply to such plans.

Given that the DOL considers experience with employee benefit plan audits important in mitigating audit deficiencies, I would expect benefit plan city specialist to be associated with a lower likelihood of restatements and late filings. Likewise, if longer tenure provides additional experience with a benefit plan, I expect short tenure of benefit plan auditors (*Audit Tenure_bp*) to be associated with a higher likelihood of benefit plan restatements and late filings. I also include proxies for benefit plan audit busyness and benefit plan audit complexity which might be negatively associated with benefit plan audit quality. I exclude one of my proxies for busyness, *Days_bw_opinions*, when I estimate model (6) with *Late Filings* as my dependent variable. I exclude this control variable because of the possibility of a mechanical relation between more days between the opinions and having a late filings. Even though there seems to be a logical expectation for the sign of some of the

²⁷ Benefit plan audit fees are not required to be disclosed separately from other “audit-related” services disclosed by the company when the company discloses audit fees paid to the principal auditor. Also fees are not required to be disclosed when they are paid to an accounting firm that is not their principal auditor. Benefit plan audit fees are not disclosed in the 11-K filing.

coefficients in this model, I use two-tailed tests since this model is more exploratory in nature.

Benefit Plan Quality

To further consider the possible outcomes of engaging the same audit firm for the financial statement audit and the benefit plan audit, I test its association with benefit plan quality. I estimate the following logistic regression:

$$\begin{aligned}
 \text{BenefitPlanQuality}_{it} = & \theta_0 + \theta_1 \text{SameAU}_{it} + \theta_2 \text{Size}_{it} + \theta_3 \text{Growth}_{it} + \theta_4 \text{ChangeEMP}_{it} \\
 & + \theta_5 \text{Loss}_{it} + \theta_6 \text{BigN_bp}_{it} + \theta_7 \text{Influence}_{it} + \theta_8 \text{BenefitPlanCitySpecialist}_{it} \\
 & + \theta_9 \text{AuditTenure_bp}_{it} + \theta_{10} \text{Busy_bp}_{it} + \theta_{11} \text{Number_of_Plans}_{it} \\
 & + \theta_{12} \text{Days_bw_opinions}_{it} + \theta_{13} \text{Union}_{it} + \theta_{14} \text{Real Estate}_{it} + \theta_{15} \text{Joint Ventures}_{it} \\
 & + \theta_{16} \text{ESOP}_{it} + \theta_j \text{IndustryFE} + \theta_k \text{YearFE} + \varepsilon_{it}
 \end{aligned} \tag{8}$$

where:

$\text{BenefitPlanQuality}_{it}$ = either ExciseTax_{it} or EBSA_{it} ;

ExciseTax_{it} = an indicator variable set equal to one if a company discloses in its 11-K filing that it has paid excise taxes or had a late submission of participant contribution,²⁸ and zero otherwise;

EBSA_{it} = an indicator variable set equal to one if the company's benefit plan has an EBSA fine, and zero otherwise; and

all other variables have been previously defined and are also defined in Appendix A. I include year fixed effects and use robust standard errors clustered by company (Petersen 2009). I do not include industry fixed effects since my dependent variable is benefit plan-related and benefit plans and their audits generally do not vary by industry. I winsorize all continuous variables at

²⁸ The DOL requires that all contributions be remitted to the third party trust as soon as administratively feasible. This time period varies by company but can be as short as one day or as long as two weeks. Failure to comply with this DOL standard is generally discovered during the compliance testing of the audit and requires disclosure by the benefit plan and payment of excise tax on Form 5330.

plus and minus one percent. I include all variables at time t given that the financial statement audit typically occurs prior to the benefit plan audit and so the knowledge spillover would likely follow the example in Figure 2. I identify characteristics associated with either late contributions or EBSA fines and make no predictions for any of my control variables for these models. Late contributions and EBSA fines may proxy for benefit plan quality since a late contribution signals a breakdown in payroll-related controls and an EBSA fine generally results from a break down in benefit plan compliance.

Characteristics of Switching Benefit Plan Auditors

My first research question related to how the provision of benefit plan audits has changed over time. In univariate analysis, it seems that there has been a trend by companies to choose a different audit firm to provide their benefit plan audit than their financial statement audit. In order to understand this trend better, I test the characteristics of switching benefit plan auditors. I estimate the following model using a logistic regression:

$$\begin{aligned}
 Switch_bp_{it} = & \psi_0 + \psi_1 Size_{it} + \psi_2 Growth_{it} + \psi_3 ChangeEMP_{it} + \psi_4 Loss_{it} + \psi_5 BigN_bp_{it-1} \\
 & + \psi_6 Influence_{it} + \psi_7 Benefit\ Plan\ City\ Specialist_{it-1} + \psi_8 Audit\ Tenure_bp_{it-1} \\
 & + \psi_9 Busy_bp_{it-1} + \psi_{10} Number_of_Plans_{it-1} + \psi_{11} Days_bw_opinions_{it-1} \\
 & + \psi_{12} Union_{it-1} + \psi_{13} Real\ Estate_{it-1} + \psi_{14} Joint\ Venture_{it-1} + \psi_{15} ESOP_{it-1} \\
 & + \psi_j IndustryFE + \psi_k YearFE + \varepsilon_{it}
 \end{aligned} \tag{9}$$

where:

$Switch_bp_{it}$ = an indicator variable set equal to one if the company changes its benefit plan auditor, and zero otherwise; and

all other variables have been previously defined and are also defined in Appendix A. I include year and industry fixed effects and use robust standard errors clustered by company (Petersen

2009). I winsorize all continuous variables at plus and minus one percent. Since the benefit plan audit fieldwork likely occurs after the financial statement audit fieldwork, I use lagged benefit plan related variables (*BigN_bp*, *Benefit Plan City Specialist*, *Audit Tenure_bp*, *Busy_bp*, *Number_of_Plans*, *Days_bw_opinions*, *Union*, *Real Estate*, *Joint Venture*, and *ESOP*). I use current period company related variables (*Size*, *Growth*, *ChangeEMP*, *Loss*, and *Influence*) since the financial statement audit is finished before the benefit plan audit. I have no expectations for these variables.

Switching the Financial Statement Auditor

The trend is for companies to switch away from having the same audit firm provide its financial statement audit and its benefit plan audit. I am interested in seeing whether having the same audit firm provide audit-related services is associated with switching the financial statement audit firm and whether switching the benefit plan audit firm is associated with switching the financial statement audit firm.

Following Landsman et al.'s (2009) switching model, I estimate the following logistic regression.

$$\begin{aligned}
 Switch_{it} = & Y_0 + Y_1 Growth_{it-1} + Y_2 ABSDACC_{it-1} + Y_3 INVREC_{it-1} + Y_4 GC_{it-1} + Y_5 MODOP_{it-1} \\
 & + Y_6 Audit Tenure_{it-1} + Y_7 ROA_{it-1} + Y_8 Loss_{it-1} + Y_9 Leverage_{it-1} + Y_{10} Cash_{it-1} \\
 & + Y_{11} Mismatch_{it-1} + Y_{12} National Leader_{it-1} + Y_{13} Size_{it-1} + Y_{14} MA_{it-1} \\
 & + Y_{14} SameAU_{it-1} + Y_j IndustryFE + Y_k YearFE + \varepsilon_{it}
 \end{aligned} \tag{10}$$

where:

- Switch_{it}* = an indicator variable set equal to one if the company changes its financial statement auditor, and zero otherwise;
- ABSDACC_{it-1}* = the absolute value of performance adjusted discretionary accruals;
- INVREC_{it-1}* = the sum of inventory and receivables divided by total assets;

- GC_{it-1} = an indicator variable set equal to one if the audit opinion is a going concern, and zero otherwise;
- $MODOP_{it-1}$ = an indicator variable set equal to one if the audit opinion is modified for anything other than a going concern, and zero otherwise;
- ROA_{it-1} = return on assets, measured as net income before extraordinary items scaled by average total assets;
- $Cash_{it-1}$ = cash scaled by total assets;
- $Mismatch_{it-1}$ = an indicator variable set equal to one if the company is mismatched with the incumbent auditor²⁹, and zero otherwise; and

all other variables have been previously defined and are also defined in Appendix A. I include year and industry fixed effects and use robust standard errors clustered by company (Petersen 2009). I winsorize all continuous variables at plus and minus one percent. In following Landsman et al. (2009), I lag all of my independent variables since I am modeling the characteristics leading to the company switching its financial statement audit firm. I have no expectations for these control variables. I also have no expectation for my variable of interest (*SameAU*) since having the same audit firm for the financial statement audit and the benefit plan audit could have no effect on whether the company switches the financial statement audit firm or have a positive effect on whether the company switches the financial statement audit firm if perceived switching cost are greater.

Once again, I follow Landsman et al.'s (2009) switching model. I modify Equation (10) so that my variable of interest changes from *SameAU* to whether the company has a new benefit plan audit firm (*Switch_bp*) indicating a prior audit firm switch. This model tests H2.

$$Switch_{it} = Y_0 + Y_1 Growth_{it-1} + Y_2 ABSDACC_{it-1} + Y_3 INVREC_{it-1} + Y_4 GC_{it-1} + Y_5 MODOP_{it-1} \\ + Y_6 Audit Tenure_{it-1} + Y_7 ROA_{it-1} + Y_8 Loss_{it-1} + Y_9 Leverage_{it-1} + Y_{10} Cash_{it-1}$$

²⁹ See Shu (2000) for how this variable is constructed.

$$\begin{aligned}
& + \gamma_{11} \text{Mismatch}_{it-1} + \gamma_{12} \text{National Leader}_{it-1} + \gamma_{13} \text{Size}_{it-1} + \gamma_{14} \text{MA}_{it-1} \\
& + \gamma_{14} \text{Switch_bp}_{it-1} + \gamma_j \text{IndustryFE} + \gamma_k \text{YearFE} + \varepsilon_{it}
\end{aligned} \tag{11}$$

where all variables have been previously defined and are also defined in Appendix A. I include year and industry fixed effects and use robust standard errors clustered by company (Petersen 2009). I winsorize all continuous variables at plus and minus one percent. In following Landsman et al. (2009), I lag all of my independent variables since I am modeling the characteristics leading to the company switching its financial statement audit firm. I have no expectations for the control variables. I also have no prediction for the coefficient on my variable of interest (*Switch_bp*) since switching the benefit plan audit firm could have no effect on whether the company switches the financial statement audit firm or have a positive (negative) effect on whether the company switches the financial statement audit firm if perceived switching cost are greater (less) than actual switching cost.

V. RESULTS

Characteristics of the Same Audit Firm Providing Audit and Audit-Related Services

In addressing my second research question, I test the characteristics of choosing the same audit firm for both the financial statement audit and the benefit plan audit.³⁰ Table 3 displays my results. Panel A shows the results using my full sample. I present the results of modeling Equation (1) in Column (1) of Panel A. I find that larger companies are more likely to have the same audit firm for both assurance services. I find that companies experiencing growth, engaging BigN audit firms for the financial statement audits, having shorter tenure with their financial statement auditor, and paying lower other fees are associated with a lower likelihood of having

³⁰ I address my first research question (How has the provision of benefit plan audit services changed over time?) in Section III and then further test this research question by exploring the characteristics of switching the benefit plan auditor found later in this section.

the same audit firm provide both assurance services. In column (2), I add benefit plan control variables in order to model Equation (2). I find that my results from the first column still hold with the additional variables. I find no associations with benefit plan characteristics and engaging the same audit firm for the financial statement audit and benefit plan audit.³¹ These findings suggest that company size, growth, type of auditor, audit tenure (or the lack thereof), and other fees are associated with the decision of companies to choose the financial statement auditor as the benefit plan auditor.

[Insert Table 3 here.]

Panel B of Table 3, presents the results of Equation (2) using Form 5500 data. I estimate the variables *Union*, *Real Estate*, and *Joint Venture* using two different methods, hand collecting the information from the 11-K filings and using the information from the Form 5500 available from the DOL. The benefit of using the 11-K filings is that I can determine whether an indicator variable should be coded as one or zero for each company-year observation in my entire sample period. The limitation of using the 11-K filings is that I am limited based on what the company chooses to disclose since this information is not mandated to be disclosed. The benefit of the Form 5500 information is that it is from an informational IRS tax form so that there is no ambiguity when a benefit plan selects that it has a collective bargaining agreement (*Union*) or chooses not to select a collective bargaining agreement. Unfortunately, there was a change in how data was recorded by the DOL from 2008 to 2009 and so the Form 5500 data is for a reduced sample period of 2009 through 2012. I find statistically similar results whether I estimate Equation (2) using the Form 5500 data (Column (1)) or the hand collected data from the

³¹ I considered adding plan size measured as the log of benefit plan assets; however, benefit plan assets are highly correlated with company size (using assets as a measure). In untabulated results, the correlation between these variables is 0.85 and significant (p-value < 0.01)

same time period (Column (2)). Overall, the results of Panel B support my findings in Panel A of Table 3. It appears that having the same audit firm provide the financial statement audit and the benefit plan audit is positively associated with larger companies and negatively associated with growth companies, companies reporting a loss, companies with a Big N financial statement auditor, and companies with a short tenure with their financial statement auditor.

Audit Knowledge Spillover – Benefit Plan Audit to the Financial Statement Audit

Misstatements

To test my Hypothesis 1a, I present the relation between engaging the same audit firm for both the financial statement audit and the benefit plan audit in the prior period and the likelihood of misstatements in Table 4. Column (1) presents the results of Equation (3) which follows Paterson and Valencia (2011). When either the company's financial statement audit firm or the company's benefit plan audit firm change, the potential benefit of having the same audit firm for the benefit plan may not be realized. To address this potential concern, I remove observations where the company changes its financial statement audit firm or its benefit plan audit firm during the year or during the previous year. In column (2), I condition the observation on not having a financial statement auditor switch or a benefit plan auditor switch in the current or preceding year. In both estimations, my variable of interest, *SameAU* is negative and significant (p-value < 0.05). This finding suggests that having the same auditor provide the financial statement audit and the benefit plan audit in the prior period is associated with a lower likelihood of misstating the financial statements.

I extend my misstatement model by adding additional auditor and audit-firm controls from Francis et al. (2013) and Lobo and Zhao (2013). Panel B of Table 4 presents the results of estimating Equation (4). In column (1), I use the available sample for the control variables

selected. In column (2), I restrict my sample observations without an auditor change or a benefit plan auditor change in the current or prior period. In both estimations, my variable of interest, *SameAU* is negative and significant (p-value < 0.05). I find that companies choosing the same audit firm for its financial statement audit and its benefit plan audit in the previous year are less likely to have misstatements in the current year.

I present my results of estimating Equation (5) in Panel C of Table 4. In this Panel, I add benefit plan complexity and the interaction term between benefit plan complexity and my variable of interest *SameAU* to investigate whether benefit plan complexity might affect the relation between my variable of interest and the likelihood of misstatements. I find no effect on the likelihood of misstatements in any estimation of benefit plan complexity. Adding the additional control and interaction does not change my overall finding that in all estimations, my variable of interest, *SameAU* is negative and significant (p-value < 0.05).

[Insert Table 4 here.]

Payroll-Related Misstatements

To further investigate the possibility of knowledge spillover, I test whether having the same audit firm provide the financial statement audit and the benefit plan audit in the prior period is associated with the likelihood of payroll-related misstatements. In Section II, I argued that the payroll transaction cycle was a specific area where knowledge spillover between the benefit plan audit and the financial statement audit might occur. I present my findings in Panel A of Table 5. In Column (1), I restrict my sample to not having any other type of misstatement so that the relation between *SameAU* and the likelihood of payroll-related misstatement is clear. I find that *SameAU* is negative and significant (p-value < 0.05). In Column (2), I further restrict my sample to remove observations where the financial statement auditor or the benefit plan

auditor changed during the current or previous year and find that *SameAU* is negative and significant (p-value < 0.01). This finding suggests that having the same audit firm perform the benefit plan audit and the financial statement audit in the prior period lowers the likelihood of payroll-related misstatements.

I add benefit plan complexity in Panel B of Table 5 to see if benefit plan complexity moderates my finding that *SameAU* is associated with a lower likelihood of payroll-related misstatements. I find no effect on the likelihood of payroll-related misstatements in any estimation of benefit plan complexity. Adding the additional control and interaction does not change my overall finding that in all estimations, my variable of interest, *SameAU* is negative and significant (p-value < 0.05).

[Insert Table 5 here.]

Debt-Related Misstatements

Additionally, I investigate the possibility of knowledge spillover in the debt-transaction cycle. In Section II, I argued that the debt transaction cycle was another specific area where knowledge spillover between the benefit plan audit and the financial statement audit might occur. I present my findings in Panel A of Table 6. In Column (1), I restrict my sample to not having any other type of misstatement so that the relation between *SameAU* and the likelihood of debt-related misstatement is clear. I find that *SameAU* is negative and significant (p-value < 0.05). In Column (2), I further restrict my sample to remove observations where the financial statement auditor or the benefit plan auditor changed during the current or previous year and find that *SameAU* is negative and significant (p-value < 0.05). This finding suggests that having the same audit firm perform the benefit plan audit and the financial statement audit in the prior period lowers the likelihood of debt-related misstatements.

I add benefit plan complexity in Panel B of Table 6 to see if benefit plan complexity moderates my finding that *SameAU* is associated with a lower likelihood of debt-related misstatements. In particular, I am interested in whether or not having an ESOP will be related to debt-related misstatements since one of the complexities of ESOPS is the ability of the benefit plan to have debt. I find no effect on the likelihood of debt-related misstatements in any estimation of benefit plan complexity. Adding the additional control and interaction does not change my overall finding that in all estimations, my variable of interest, *SameAU* is negative and significant (p-value < 0.05).

[Insert Table 6 here.]

Overall, these findings support H1a that audit quality is positively associated with engaging the *same* financial statement audit firm and benefit plan audit firm. These findings suggests that knowledge spillover exists for audit-related services rather than an impairment of auditor independence.

Audit Knowledge Spillover –Financial Statement Audit to the Benefit Plan Audit

Benefit Plan Audit Quality

In Table 7, I estimate Equation (7) and test H1b that benefit plan audit quality is positively associated with engaging the *same* financial statement audit firm and benefit plan audit firm. In Column (1), I find that *SameAU* is not associated with benefit plan restatements (although the coefficient is negative). In Column (2), I find that *SameAU* is associated with a higher likelihood of the benefit plan having a late filing. I find no evidence or support for H1b; however, these model estimations are exploratory and so it may be an area for future research.

[Insert Table 7 here.]

Benefit Plan Financial Reporting Quality

In Table 8, I estimate Equation (8) and test whether benefit plan financial reporting quality is positively associated with engaging the *same* financial statement audit firm and benefit plan audit firm. In Column (1), I find that *SameAU* is not associated with excise taxes or late contributions. In Column (2), I find that *SameAU* is not associated with a likelihood of the benefit plan having an EBSA fine. I develop a better understanding of the characteristics of the benefit plan, the audit firm, and the company that are associated with my measures of benefit plan financial reporting quality. In Column (1), I find that companies with a higher change in employees, more plans, and have a unionized workforce are more likely to have late contributions. This finding suggests certain types of administrative complexities (i.e. change in employees, greater number of plans, and a collective bargaining agreement) may increase the likelihood of a breakdown in the benefit plan financial reporting quality. In Column (2), my findings have significant limitations given the low number of EBSA fines in my sample. It seems that public companies that provide their own stock as an investment option for their benefit plan participants are overall not very likely to receive an EBSA fine.

[Insert Table 8 here.]

Benefit Plan Auditor Switching

To further test my first research question regarding how the provision for audit-related services has changed over time, I estimate Equation (9) to better understand the trend for companies to switch away from having the same audit firm provide both the financial statement audit and the benefit plan audit. I present my results in Table 9. Panel A and B present the descriptive statistics of my estimation. In Panel A, I condition my sample on having had the same audit firm for the financial statement audit and the benefit plan audit in the prior period. In Panel B, I condition my sample on having different audit firms opine on the financial statement

audit and the benefit plan audit in the prior period. I use these two different restrictions to better understand the characteristics of switching. I present the results of the regression in Panel C. In column (1) of Panel C, I find that companies who are smaller, report a loss, have previously had a Big N benefit plan auditor, and have more complex benefit plans are more likely to switch their benefit plan auditor provided that they had the same audit firm providing the financial statement audit and the benefit plan audit in the prior time period. In column (2) of Panel C, I find that companies who experience growth, have a change in employees, had previously had a Big N benefit plan auditor, do not have a benefit plan city specialist, and have had their benefit plan audit firm for greater than three years are more likely to switch their benefit plan auditor provided they had different audit firms provide the financial statement audit and the benefit plan audit in the prior time period. I think it is interesting that the characteristics of firms switching their benefit plan audit firm varies depending on whether the company had the same or different audit firms provide the financial statement audit and the benefit plan audit. One characteristic that remains significant in both specifications is the trend for companies to switch away from their Big N benefit plan audit firm. This finding suggests that companies are more likely to be cost conscious when it comes to their benefit plan provider.

[Insert Table 9 here.]

Financial Statement Auditor Switching

In Panel A of Table 10, I present the descriptive statistics of the observations remaining after I require data for the independent variables in the Landsman et al. (2009) switching model. I find similar results to the descriptive statistics in Table 2. Fifty-eight percent of my sample has the same auditor provide the financial statement audit and the benefit plan audit. Seven percent

of my sample switches their benefit plan auditor. Two percent of my sample switches its financial statement audit firm.

Having the Same Audit Firm for the Financial Statement Audit and the Benefit Plan Audit

In Table 10, Panel B, I present the results of estimating Equation (9). I find having the same auditor provide the financial statement audit and the benefit plan audit is associated with a lower likelihood of switching the financial statement auditor ($p\text{-value}<0.01$). In column (2), I restrict my sample to companies that have not switched their benefit plan audit firm in the current or prior year and find similar results. This finding suggests that perhaps the perceived switching cost are higher for firms that have the same auditor for their financial statement audit and their benefit plan audit.

Selecting a New Benefit Plan Audit Firm

In Table 10, Panel C, I present the results of estimating Equation (10). I find having that a new benefit plan audit firm in the prior period is associated with a higher likelihood of switching the financial statement auditor ($p\text{-value}<0.05$). This finding suggests that perhaps the perceived switching cost are lower for firms that have switched their benefit plan audit firm and they are more willing to also switch their financial statement audit firm. Thus, I reject my second hypothesis that there is not association between switching the financial statement auditor and switching the benefit plan auditor.

VI. CONCLUSION

In this study, I provide market evidence of the distinct shifts in the use of the same audit firm for both the financial statement audit and other audit-related services over time. I also investigate the characteristics of choosing the same audit firm for an auxiliary service. And then, I test whether having the same audit firm for both the financial statement audit and the benefit

plan audit in a prior period affects audit quality as measured using misstatements (an indication of knowledge spillover). Alternatively, I test whether the flow of knowledge spillover works in the other direction, from the financial statement audit to the benefit plan audit. I also test the trend for companies switching away from having the same audit firm provide their financial statement audit and benefit plan audit by testing the characteristics of benefit plan audit switches and financial statement audit switches.

I find that the percentage of companies engaging the same audit firm for both the financial statement audit and the benefit plan audit has declined from 2004 to 2012. I find that larger companies are more likely to engage the same audit firm for financial statement audits and benefit plan audits. I also find that engaging the same audit firm in the prior period is associated with a lower likelihood of misstatement, payroll-related misstatements, and debt-related misstatements. I find that benefit plan complexity does not affect the likelihood of financial statement misstatements. I find that the direction of knowledge spillover appears to be one direction, from the benefit plan audit to the financial statement audit. These findings suggest that using the same assurance provider for an auxiliary service improves audit quality or provides knowledge spillover rather than impairing auditor independence. My findings suggest that an unintended consequence of SOX may be that audit committees choose the perception of auditor independence over the potential knowledge spillover gained from audit-related services.

I also find that having the same audit firm for both the financial statement audit and the benefit plan audit is associated with a lower likelihood of switching the financial statement audit firm while switching the benefit plan audit firm is associated with a higher likelihood of switching the financial statement audit firm. These findings suggests that audit-related services may have more effect on the financial statement audit than just knowledge spillover and that who

is providing the audit-related services and whether or not that provider has changed affects the perception of switching costs for the financial statement audit.

I contribute to the research on nonaudit services by documenting the relation between the choice of service provider of a specific type of nonaudit service and audit quality. I also contribute to the literature by exploring a new data set. I expect that my findings will be of interest to other researchers and regulators concerned with nonaudit services.

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APPENDIX A

Variable Definitions

Dependent Variable

| | | |
|--|---|---|
| <i>SameAU_{it}</i> | = | an indicator variable set equal to one if a company engages the same audit firm for its benefit plan audit and financial statement audit, and zero otherwise |
| <i>BP_Restatements_{it}</i> | = | an indicator variable set equal to one if a company discloses in its 11-K filing that its benefit plan's financial statements have been restated, and zero otherwise |
| <i>Debt_Misstatements_{it}</i> | = | an indicator variable set equal to one if a company's financial statements for the year are subsequently restated for a debt-related misstatement, ³² and zero otherwise |
| <i>EBSA_{it}</i> | = | an indicator variable set equal to one if the company's benefit plan has an EBSA fine, and zero otherwise |
| <i>ExciseTax_{it}</i> | = | an indicator variable set equal to one if a company discloses in its 11-K filing that it has paid excise taxes or had a late submission of participant contribution, ³³ and zero otherwise |
| <i>Late Filing_{it}</i> | = | an indicator variable set equal to one if the company's benefit plan audit was filed more than 180 days after the benefit plan's year-end, and zero otherwise |
| <i>Misstatement_{it}</i> | = | an indicator variable set equal to one if a company's financial statements for the year are subsequently restated, zero otherwise |

³² Using the Non-Reliance Restatement database in Audit Analytics, I categorize debt, quasi-debt, warrants and equity security issues restatements (4), debt and/or equity classification issues restatements (26), loan covenant violations/issues restatements (27), and financial statement, footnote, and segment disclosure restatements (36) as debt-related restatements since these types of restatements are all closely related to the debt transaction cycle and the financial reporting of debt-related transactions.

³³ The DOL requires that all contributions be remitted to the third party trust as soon as administratively feasible. This time period varies by company but can be as short as one day or as long as two weeks. Failure to comply with this DOL standard is generally discovered during the compliance testing of the audit and requires disclosure by the benefit plan and payment of excise tax on Form 5330.

Payroll_Misstatements_{it} = an indicator variable set equal to one if a company's financial statements for the year are subsequently restated for a payroll-related misstatement,³⁴ and zero otherwise

Switch_{it} = an indicator variable set equal to one if a company changes its financial statement auditor, and zero otherwise

Switch_bp_{it} = an indicator variable set equal to one if a company changes its benefit plan auditor, and zero otherwise

Other Variables

DifferentAU_{it} = an indicator variable set equal to one if a company engages a different audit firm for its benefit plan audit than for its financial statement audit, and zero otherwise

Control Variables

ABRET_{it} = the annual buy-and-hold stock return less annual buy-and-hold value weighted NYSE-AMEX-NASD index return

ABSDACC_{it-1} = the absolute value of performance adjusted discretionary accruals

Audit Fees_{it} = the natural log of audit fees

Audit Tenure_{it} = an indicator variable set equal to one if a company has engaged its financial statement auditor for three years or less

AuditTenure_bp_{it} = an indicator variable set equal to one if a company engages an audit firm for its benefit plan audit for three years or less, and zero otherwise

BenefitPlanCitySpecialist_{it} = an indicator variable set equal to one if an audit firm audits at least 30 percent of the benefit plans (as evidenced by 11-K filings) for a given city and year provided that the audit firm audits more than one benefit plan for that same city and year, and zero otherwise

BigN_{it} = an indicator variable set equal to one if a company engages a Big N audit firm for its financial statement audit, and zero otherwise³⁵

³⁴ Using the Non-Reliance Restatement database in Audit Analytics, I categorize expense restatements (7), liabilities restatements (12), stock based compensation restatements (17), deferred stock restatements (39 and 48), and pension restatements (11) as payroll-related restatements since the payroll transaction cycle general includes compensation expense, payroll accruals, and additional types of compensation (i.e. stock based or deferred stock). I include pension restatements since pensions are another type of benefit plan.

³⁵ Big N refers to Deloitte & Touche, Ernst & Young, KPMG and PricewaterhouseCoopers.

| | |
|--------------------------------------|---|
| <i>BigN_bp_{it}</i> | = an indicator variable set equal to one if a company engages a Big N audit firm for its benefit plan audit, and zero otherwise |
| <i>BTM_{it}</i> | = the book value of equity (CEQ) divided by the market value of equity (CSHO x PRCC_F) |
| <i>Busy_bp_{it}</i> | = an indicator variable set equal to one if the company's benefit plan audit opinion is signed during the months of January through March, and zero otherwise |
| <i>Cash_{it-1}</i> | = cash scaled by total assets |
| <i>ChangeEMP_{it}</i> | = the abnormal change in employees, defined as the percentage change in the number of employees less the percentage change in total assets $[(EMP_t - EMP_{t-1})/EMP_{t-1}] - [(AT_t - AT_{t-1})/AT_{t-1}]$ |
| <i>ChangeINV_{it}</i> | = the change in inventory from year t-1 to year t |
| <i>ChangeREC_{it}</i> | = the change in accounts receivable from year t-1 to year t |
| <i>ChangeROA_{it}</i> | = the change in ROA from year t-1 to year t where ROA is measured as the return (IB) on lagged total assets (AT_{t-1}) |
| <i>ChangeSale_{it}</i> | = the percentage change in cash sales where cash sales equal sales less the change in receivables from year t-1 to year t |
| <i>City_Leader_{it}</i> | = an indicator variable set equal to one if an audit firm office is the number one audit firm in terms of aggregated client audit fees in an industry within that city for a specific fiscal year, and zero otherwise |
| <i>Days_bw_opinions_{it}</i> | = the natural log of the number of days between the signature date of the company's financial statement audit opinion and the signature date of the company's benefit plan audit opinion |
| <i>ESOP_{it}</i> | = an indicator variable set equal to one if the company's benefit plan discloses in its 11-K filing that it has an employee stock ownership plan or an ESOP |
| <i>FIN_{it}</i> | = an indicator variable set equal to one if the company issued more than \$10 million of debt or equity during the year, and zero otherwise |
| <i>GC_{it-1}</i> | = an indicator variable set equal to one if the audit opinion is a going concern, and zero otherwise; |
| <i>Growth_{it}</i> | = the percentage change in total assets |

| | | |
|--|---|--|
| <i>Influence_{it}</i> | = | the sum of a company's audit and audit-related fees divided by the total audit and audit-related fees received by the local audit office |
| <i>INVREC_{it-1}</i> | = | the sum of inventory and receivables divided by total assets |
| <i>Joint Venture_{it}</i> | = | an indicator variable set equal to one if the company's benefit plan discloses in its 11-K filing that it has joint venture investments |
| <i>Joint Venture_5500_{it}</i> | = | an indicator variable set equal to one if the company reports an ending asset balance associated with a joint venture, and zero otherwise (Form 5500) |
| <i>LagABRET_{it}</i> | = | ABRET lagged by one year |
| <i>Lease_{it}</i> | = | an indicator variable set equal to one if the company's future operating lease obligations are greater than zero, and zero otherwise |
| <i>Leverage_{it}</i> | = | total liabilities scaled by total assets |
| <i>Loss_{it}</i> | = | an indicator variable set equal to one if the company reports net income less than zero, and zero otherwise |
| <i>MA_{it}</i> | = | an indicator variable set equal to one if a company had an acquisition or a merger, and zero otherwise |
| <i>Mismatch_{it-1}</i> | = | an indicator variable set equal to one if the company is mismatched with the incumbent auditor ³⁶ , and zero otherwise |
| <i>MODOP_{it-1}</i> | = | an indicator variable set equal to one if the audit opinion is modified for anything other than a going concern, and zero otherwise |
| <i>National_Leader_{it}</i> | = | an indicator variable set equal to one if an audit firm is the number one audit firm in an industry in terms of aggregated audit fees for a specific fiscal year, and zero otherwise |
| <i>Number_of_Plans_{it}</i> | = | the natural log of the number of benefit plans of a company |
| <i>Other Fees_{it}</i> | = | the natural logarithm of Other Fees |
| <i>Real Estate_{it}</i> | = | an indicator variable set equal to one if the company's benefit plan discloses in its 11-K filing that it has real estate investments |

³⁶ See Shu (2000) for how this variable is constructed.

| | |
|--------------------------------------|---|
| <i>Real Estate_5500_{it}</i> | = an indicator variable set equal to one if the company reports an ending asset balance associated with real estate, and zero otherwise (Form 5500) |
| <i>ROA_{it-1}</i> | = return on assets, measured as net income before extraordinary items scaled by average total assets |
| <i>Size_{it}</i> | = the natural log of total assets |
| <i>Soft_Assets_{it}</i> | = the sum of soft assets ($AT_t - PPENT_t - CHE_t$) scaled by total assets |
| <i>Tax Fees_{it}</i> | = the natural logarithm of Tax-related Fees |
| <i>Total_Accrual_{it}</i> | = the change in noncash assets from year t-1 to year t divided by average total assets where noncash assets equal $(AT_t - CHE_t) - (LT_t + PSTK_t)$ |
| <i>Union_{it}</i> | = an indicator variable set equal to one if the company's benefit plan discloses in its 11-K filing that it is subject to a collective bargaining agreement |
| <i>Union_5500_{it}</i> | = an indicator variable set equal to one if the company's benefit plan has unionized participants, and zero otherwise (Form 5500) |

TABLE 1**Sample Selection****Panel A: Number of Observations**

| | |
|--|---------------|
| Company-years in Benefit Plan Opinions (an Audit Analytics database) from 2004 through 2012 | 11,641 |
| Less observations not in Compustat | (596) |
| Less observations due to missing variables for the control variables | (1,833) |
| Less observations where the company's benefit plan audit opinion is signed before or on the same day as the financial statement audit opinion | (411) |
| Final Sample | 8,801* |

*Representing 1,470 unique companies

Panel B: Observations by Year

| Fiscal Year | N | % |
|-------------|-------|--------|
| 2004 | 1,056 | 12.00% |
| 2005 | 1,054 | 11.98% |
| 2006 | 1,049 | 11.92% |
| 2007 | 1,008 | 11.45% |
| 2008 | 994 | 11.29% |
| 2009 | 968 | 11.00% |
| 2010 | 899 | 10.21% |
| 2011 | 905 | 10.28% |
| 2012 | 868 | 9.85% |
| Total | 8,801 | 100% |

Panel C: Observations by Fama French 12 Industry

| Industry | N | % |
|----------------------|-------|--------|
| Consumer nondurables | 413 | 4.69% |
| Consumer durables | 242 | 2.75% |
| Manufacturing | 1,185 | 13.46% |
| Energy | 352 | 4.00% |
| Chemicals | 329 | 3.74% |
| Business Equipment | 838 | 9.52% |
| Telecommunication | 227 | 2.58% |
| Utilities | 614 | 6.98% |
| Wholesale and Retail | 790 | 8.98% |
| Healthcare | 443 | 5.03% |
| Financial | 2,446 | 27.79% |
| Other | 922 | 10.48% |
| Total | 8,801 | 100% |

Table 1, Cont.

Sample Selection

Panel D – Frequency of Signature Date of Benefit Plan Opinions by Month and Year

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| January | 5 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 11 |
| February | 5 | 7 | 6 | 4 | 4 | 5 | 6 | 4 | 4 | 45 |
| March | 16 | 16 | 13 | 17 | 12 | 12 | 8 | 10 | 11 | 115 |
| April | 30 | 18 | 7 | 6 | 6 | 7 | 7 | 6 | 5 | 92 |
| May | 156 | 127 | 16 | 19 | 20 | 15 | 21 | 15 | 22 | 411 |
| June | 761 | 811 | 929 | 904 | 901 | 891 | 819 | 833 | 764 | 7,613 |
| July | 38 | 31 | 43 | 22 | 22 | 10 | 15 | 13 | 41 | 235 |
| August | 7 | 7 | 6 | 3 | 5 | 4 | 1 | 3 | 1 | 37 |
| September | 9 | 14 | 7 | 10 | 9 | 5 | 9 | 6 | 6 | 75 |
| October | 6 | 3 | 5 | 4 | 3 | 6 | 2 | 2 | 2 | 33 |
| November | 7 | 4 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 24 |
| December | 16 | 14 | 14 | 17 | 11 | 10 | 9 | 10 | 9 | 110 |
| Total | 1,056 | 1,054 | 1,049 | 1,008 | 994 | 968 | 899 | 905 | 868 | 8,801 |

TABLE 2

Descriptive Statistics and Selected Correlations

Panel A: Selected Descriptive Statistics

| Variables | N | Mean | Std. Dev. | 25% | Median | 75% |
|--|----------|-------------|------------------|------------|---------------|------------|
| <i>Misstatement</i> | 8,801 | 0.091 | 0.288 | 0 | 0 | 0 |
| <i>SameAU</i> | 8,801 | 0.592 | 0.491 | 0 | 1 | 1 |
| <i>Payroll Related Misstatements</i> | 8,801 | 0.026 | 0.158 | 0 | 0 | 0 |
| <i>Debt Related Misstatements</i> | 8,801 | 0.011 | 0.105 | 0 | 0 | 0 |
| <i>Benefit Plan Restatements</i> | 8,801 | 0.004 | 0.065 | 0 | 0 | 0 |
| <i>Late Filings</i> | 8,801 | 0.047 | 0.212 | 0 | 0 | 0 |
| <i>Excise Taxes/Late Contributions</i> | 8,801 | 0.028 | 0.164 | 0 | 0 | 0 |
| <i>EBSA Fine</i> | 8,801 | 0.001 | 0.038 | 0 | 0 | 0 |
| <i>Audit Fees (log)</i> | 8,801 | 14.331 | 1.432 | 13.503 | 14.315 | 15.230 |
| <i>Audit Tenure</i> | 8,801 | 12.907 | 10.833 | 5 | 9 | 18 |
| <i>Auditor Change</i> | 8,801 | 0.033 | 0.179 | 0 | 0 | 0 |
| <i>Auditor Change bp</i> | 8,801 | 0.074 | 0.262 | 0 | 0 | 0 |
| <i>BenefitPlanCitySpecialist</i> | 8,741 | 0.347 | 0.476 | 0 | 0 | 1 |
| <i>BigN</i> | 8,801 | 0.845 | 0.362 | 1 | 1 | 1 |
| <i>BigN bp</i> | 8,801 | 0.496 | 0.500 | 0 | 0 | 1 |
| <i>BTM</i> | 8,801 | 0.653 | 0.584 | 0.332 | 0.532 | 0.811 |
| <i>Busy bp</i> | 8,801 | 0.039 | 0.192 | 0 | 0 | 0 |
| <i>ChangeEMP</i> | 8,801 | -0.049 | 0.204 | -0.106 | -0.038 | 0.024 |
| <i>City Leader</i> | 8,801 | 0.676 | 0.468 | 0 | 1 | 1 |
| <i>Days bw opinions</i> | 8,801 | 121.605 | 58.151 | 102 | 116 | 123 |
| <i>Days bw opinions (log)</i> | 8,801 | 4.719 | 0.444 | 4.635 | 4.762 | 4.820 |
| <i>ESOP</i> | 8,801 | 0.205 | 0.403 | 0 | 0 | 0 |
| <i>FIN</i> | 8,801 | 0.790 | 0.407 | 1 | 1 | 1 |
| <i>Influence</i> | 8,801 | 0.052 | 0.117 | 0.004 | 0.013 | 0.038 |
| <i>Joint Venture</i> | 8,801 | 0.013 | 0.114 | 0 | 0 | 0 |
| <i>Joint Venture 5500</i> | 2,489 | 0.207 | 0.405 | 0 | 0 | 0 |
| <i>Lease</i> | 8,801 | 1.000 | 0.018 | 1 | 1 | 1 |
| <i>Leverage</i> | 8,801 | 0.660 | 0.226 | 0.498 | 0.664 | 0.872 |
| <i>Loss</i> | 8,801 | 0.162 | 0.369 | 0 | 0 | 0 |

(Table 2, Panel A continues on the next page.)

TABLE 2, Cont.

Descriptive Statistics and Selected Correlations

Panel A: Selected Descriptive Statistics, Cont.

| Variables | N | Mean | Std. Dev. | 25% | Median | 75% |
|--------------------------------------|----------|-------------|------------------|------------|---------------|------------|
| <i>MA</i> | 8,801 | 0.961 | 0.194 | 1 | 1 | 1 |
| <i>National Leader</i> | 8,801 | 0.309 | 0.462 | 0 | 0 | 1 |
| <i>Number of Benefit Plans</i> | 8,801 | 1.404 | 1.005 | 1 | 1 | 1 |
| <i>Number of Benefit Plans (log)</i> | 8,801 | 0.826 | 0.266 | 0.693 | 0.693 | 0.693 |
| <i>Other Fees (log)</i> | 8,801 | 3.568 | 4.856 | 0 | 0 | 8.445 |
| <i>Real Estate</i> | 8,801 | 0.149 | 0.356 | 0 | 0 | 0 |
| <i>Real Estate 5500</i> | 2,489 | 0.048 | 0.214 | 0 | 0 | 0 |
| <i>Size (log)</i> | 8,801 | 8.051 | 1.778 | 6.858 | 7.923 | 9.188 |
| <i>Soft Assets</i> | 8,698 | 0.664 | 0.244 | 0.487 | 0.710 | 0.880 |
| <i>Tax Fees (log)</i> | 8,801 | 9.740 | 4.901 | 9.616 | 11.385 | 12.858 |
| <i>Tenure bp</i> | 8,801 | 4.750 | 2.980 | 2 | 4 | 7 |
| <i>Union</i> | 8,801 | 0.214 | 0.410 | 0 | 0 | 0 |
| <i>Union 5500</i> | 2,489 | 0.306 | 0.461 | 0 | 0 | 1 |

Note: Data from Form 5500 includes only observations of companies whose Compustat EIN matches the DOL's records for the period 2009 through 2012. Definitions of the variables reported in this table are provided in Appendix A.

TABLE 2, Cont.

Descriptive Statistics and Selected Correlations

Panel B: Difference in Means by *SameAU*

| Variables | <i>SameAU</i> = 0 | | <i>SameAU</i> = 1 | | Difference |
|-------------------------|-------------------|--------|-------------------|--------|------------|
| | n | mean | n | mean | |
| <i>Size</i> | 3,591 | 7.758 | 5,210 | 8.253 | 0.000 *** |
| <i>Growth</i> | 3,591 | 0.078 | 5,210 | 0.073 | 0.157 |
| <i>ChangeEMP</i> | 3,591 | -0.051 | 5,210 | -0.047 | 0.361 |
| <i>Loss</i> | 3,591 | 0.179 | 5,210 | 0.151 | 0.001 *** |
| <i>BigN</i> | 3,591 | 0.894 | 5,210 | 0.811 | 0.000 *** |
| <i>Influence</i> | 3,591 | 0.040 | 5,210 | 0.060 | 0.000 *** |
| <i>Audit Tenure</i> | 3,591 | 0.171 | 5,210 | 0.185 | 0.077 * |
| <i>Audit Fees</i> | 3,591 | 14.291 | 5,210 | 14.399 | 0.000 *** |
| <i>Tax Fees</i> | 3,591 | 9.490 | 5,210 | 9.912 | 0.000 *** |
| <i>Other Fees</i> | 3,591 | 3.758 | 5,210 | 3.437 | 0.002 *** |
| <i>Busy_bp</i> | 3,591 | 0.035 | 5,210 | 0.041 | 0.107 |
| <i>Number_of_plans</i> | 3,591 | 0.823 | 5,210 | 0.827 | 0.446 |
| <i>Days_bw_opinions</i> | 3,591 | 4.737 | 5,210 | 4.706 | 0.002 *** |

Note: ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively. All variables are defined in Appendix A.

TABLE 2, Cont.

Descriptive Statistics and Selected Correlations

Panel C: Selected Pearson Correlations

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
| 1 <i>Misstatement</i> | 1.00 | | | | | | | | | | | | | | | |
| 2 <i>SameAU</i> | -0.04 | 1.00 | | | | | | | | | | | | | | |
| 3 <i>SameAU_(t-1)</i> | -0.03 | 0.87 | 1.00 | | | | | | | | | | | | | |
| 4 <i>Audit Fees</i> | 0.02 | 0.04 | 0.05 | 1.00 | | | | | | | | | | | | |
| 5 <i>Auditor Change</i> | 0.01 | -0.03 | -0.07 | -0.15 | 1.00 | | | | | | | | | | | |
| 6 <i>BigN</i> | 0.04 | -0.11 | -0.08 | 0.53 | -0.17 | 1.00 | | | | | | | | | | |
| 7 <i>Busy_bp</i> | 0.01 | 0.02 | 0.01 | 0.03 | -0.00 | 0.02 | 1.00 | | | | | | | | | |
| 8 <i>City_Leader</i> | 0.01 | 0.05 | 0.05 | 0.19 | -0.04 | 0.12 | 0.00 | 1.00 | | | | | | | | |
| 9 <i>Growth</i> | 0.01 | -0.02 | -0.01 | -0.02 | 0.01 | -0.01 | -0.01 | -0.04 | 1.00 | | | | | | | |
| 10 <i>Influence</i> | 0.01 | 0.09 | 0.07 | 0.08 | 0.01 | -0.14 | 0.00 | 0.24 | -0.02 | 1.00 | | | | | | |
| 11 <i>Leverage</i> | -0.02 | 0.08 | 0.08 | -0.03 | 0.04 | -0.19 | -0.03 | -0.01 | -0.07 | 0.12 | 1.00 | | | | | |
| 12 <i>Loss</i> | 0.04 | -0.04 | -0.04 | -0.08 | 0.05 | -0.08 | 0.01 | -0.03 | -0.28 | -0.01 | 0.12 | 1.00 | | | | |
| 13 <i>MA</i> | -0.01 | 0.03 | 0.03 | 0.01 | -0.01 | 0.04 | 0.01 | 0.00 | -0.05 | -0.05 | -0.10 | -0.01 | 1.00 | | | |
| 14 <i>National_Leader</i> | 0.02 | -0.03 | -0.02 | 0.17 | -0.05 | 0.24 | 0.02 | 0.12 | -0.00 | -0.02 | 0.03 | -0.05 | -0.00 | 1.00 | | |
| 15 <i>Other Fees</i> | 0.02 | -0.03 | -0.04 | 0.18 | -0.04 | 0.06 | -0.02 | 0.02 | 0.02 | 0.02 | 0.02 | -0.04 | -0.04 | 0.05 | 1.00 | |
| 16 <i>Size</i> | -0.02 | 0.14 | 0.13 | 0.73 | -0.10 | 0.29 | -0.01 | 0.18 | 0.04 | 0.14 | 0.31 | -0.16 | -0.09 | 0.18 | 0.18 | 1.00 |
| 17 <i>Tax Fees</i> | 0.02 | 0.04 | 0.06 | 0.40 | -0.12 | 0.22 | 0.03 | 0.10 | 0.01 | 0.07 | -0.05 | -0.06 | 0.01 | 0.10 | 0.14 | 0.27 |

***Bold** denotes significance at <.05 for two tailed tests. I define all variables in Appendix A. I winsorize continuous variables at the one and ninety-nine percent levels. Numbers along the top correspond with the numbered rows.

TABLE 2, Cont.

Descriptive Statistics and Selected Correlations

Panel D: Percentage of Companies with *SameAU* by Year

| Year | Percentage <i>SameAU</i> | Percentage <i>DifferentAU</i> |
|-------------|-------------------------------------|--|
| 2004 | 72.16% | 27.84% |
| 2005 | 65.46% | 34.54% |
| 2006 | 61.77% | 38.23% |
| 2007 | 58.23% | 41.77% |
| 2008 | 56.54% | 43.46% |
| 2009 | 55.68% | 44.32% |
| 2010 | 54.95% | 45.05% |
| 2011 | 53.70% | 46.30% |
| 2012 | 50.92% | 49.08% |

Panel E: Disaggregation of Companies with *SameAU* and *DifferentAU* by Year and Type of Auditor

| Year | <i>SameAU</i> | | <i>DifferentAU</i> | | | | Total |
|--------------|---------------------------|-----------------------------------|---|---|---|---|--------------|
| | Big N Auditors | Non-Big N Auditors | Big N Auditor | | Non-Big N Auditor | | |
| | | | Big N Benefit Plan Auditor | Non-Big N Benefit Plan Auditor | Big N Benefit Plan Auditor | Non-Big N Benefit Plan Auditor | |
| 2004 | 586 | 176 | 9 | 229 | 2 | 54 | 1,056 |
| 2005 | 607 | 83 | 7 | 331 | 0 | 26 | 1,054 |
| 2006 | 550 | 98 | 1 | 364 | 0 | 36 | 1,049 |
| 2007 | 490 | 97 | 3 | 378 | 0 | 40 | 1,008 |
| 2008 | 452 | 110 | 3 | 381 | 0 | 48 | 994 |
| 2009 | 423 | 116 | 1 | 380 | 0 | 48 | 968 |
| 2010 | 389 | 105 | 0 | 362 | 3 | 40 | 899 |
| 2011 | 382 | 104 | 1 | 378 | 1 | 39 | 905 |
| 2012 | 345 | 97 | 0 | 382 | 1 | 43 | 868 |
| Total | 4,224 | 986 | 25 | 3,185 | 7 | 374 | 8,801 |

TABLE 3

Characteristics of Companies Engaging the Same Audit Firm

Panel A: Measuring Benefit Plan Complexity using Direct Edgar Data

| | (1) | | (2) | |
|--|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value |
| <i>Size</i> | 0.207*** | 0.000 | 0.231*** | 0.000 |
| <i>Growth</i> | -0.498*** | 0.006 | -0.497*** | 0.006 |
| <i>ChangeEMP</i> | 0.004 | 0.977 | 0.013 | 0.924 |
| <i>Loss</i> | -0.152 | 0.102 | -0.156* | 0.094 |
| <i>BigN</i> | -0.999*** | 0.000 | -0.994*** | 0.000 |
| <i>Influence</i> | 0.683 | 0.185 | 0.722 | 0.170 |
| <i>Audit Tenure</i> | -0.329*** | 0.000 | -0.328*** | 0.000 |
| <i>Audit Fees</i> | 0.043 | 0.624 | 0.026 | 0.768 |
| <i>Tax Fees</i> | 0.012 | 0.231 | 0.011 | 0.243 |
| <i>Other Fees</i> | -0.027*** | 0.002 | -0.026*** | 0.003 |
| <i>Busy_bp</i> | | | 0.251 | 0.340 |
| <i>Number_of_Plans</i> | | | -0.311 | 0.167 |
| <i>Days_bw_opinions</i> | | | -0.126 | 0.257 |
| <i>Union</i> | | | -0.033 | 0.814 |
| <i>Real Estate</i> | | | 0.178 | 0.181 |
| <i>Joint Ventures</i> | | | 0.377 | 0.333 |
| <i>ESOP</i> | | | 0.054 | 0.693 |
| <i>Intercept</i> | -0.188 | 0.841 | 0.714 | 0.514 |
| Cluster by Company | Yes | | Yes | |
| <i>Year & Industry Fixed Effects</i> | Yes | | Yes | |
| Number of Observations | 8,801 | | 8,801 | |
| Pseudo R-squared | 0.066 | | 0.068 | |
| Area under ROC curve | 0.676 | | 0.679 | |
| Time Period | 2004-2012 | | 2004-2012 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *SameAU*. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using two-tailed tests. All variables are defined in Appendix A.

TABLE 3, Cont.

Characteristics of Companies Engaging the Same Audit Firm

Panel B: Measuring Benefit Plan Complexity using Form 5500 Data

| | (1) | | (2) | |
|-------------------------------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value |
| <i>Size</i> | 0.319*** | 0.001 | 0.229*** | 0.003 |
| <i>Growth</i> | -1.074*** | 0.004 | -0.885*** | 0.003 |
| <i>ChangeEMP</i> | -0.240 | 0.417 | 0.041 | 0.868 |
| <i>Loss</i> | -0.353** | 0.020 | -0.286** | 0.022 |
| <i>BigN</i> | -1.398*** | 0.000 | -1.299*** | 0.000 |
| <i>Influence</i> | 0.083 | 0.919 | 0.799 | 0.206 |
| <i>Audit Tenure</i> | -0.480** | 0.038 | -0.294 | 0.107 |
| <i>Audit Fees</i> | -0.015 | 0.915 | 0.106 | 0.375 |
| <i>Tax Fees</i> | 0.019 | 0.210 | 0.011 | 0.380 |
| <i>Other Fees</i> | -0.018 | 0.194 | -0.033*** | 0.004 |
| <i>Busy_bp</i> | 0.175 | 0.682 | 0.306 | 0.394 |
| <i>Number_of_Plans</i> | -0.189 | 0.555 | -0.335 | 0.233 |
| <i>Days_bw_opinions</i> | -0.291* | 0.088 | -0.190 | 0.189 |
| <i>Union</i> | | | -0.178 | 0.305 |
| <i>Real Estate</i> | | | 0.145 | 0.374 |
| <i>Joint Ventures</i> | | | 0.622 | 0.205 |
| <i>ESOP</i> | -0.126 | 0.503 | -0.046 | 0.785 |
| <i>Union_5500</i> | -0.300 | 0.138 | | |
| <i>Real Estate_5500</i> | 0.684* | 0.097 | | |
| <i>Joint Ventures_5500</i> | -0.138 | 0.479 | | |
| <i>Intercept</i> | 0.720 | 0.663 | -0.723 | 0.612 |
| Cluster by Company | Yes | | Yes | |
| Year & Industry Fixed Effects | Yes | | Yes | |
| Number of Observations | 2,489 | | 3,640 | |
| Pseudo R-squared | 0.082 | | 0.075 | |
| Area under ROC curve | 0.690 | | 0.683 | |
| Time Period | 2009-2012 | | 2009-2012 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *SameAU*. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using two-tailed tests. All variables are defined in Appendix A.

TABLE 4

Association between Misstatements and *SameAU*

Panel A

| | (1) | | (2) | |
|-------------------------------------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU</i> _{<i>t-1</i>} | -0.229** | 0.025 | -0.266** | 0.024 |
| <i>Size</i> | -0.217*** | 0.005 | -0.223*** | 0.008 |
| <i>MA</i> | -0.197 | 0.314 | -0.064 | 0.792 |
| <i>BTM</i> | 0.284*** | 0.003 | 0.327*** | 0.002 |
| <i>Leverage</i> | 0.381 | 0.250 | 0.486 | 0.164 |
| <i>FIN</i> | 0.203 | 0.101 | 0.076 | 0.564 |
| <i>Loss</i> | 0.212 | 0.122 | 0.118 | 0.445 |
| <i>BigN</i> | 0.365* | 0.076 | 0.394* | 0.071 |
| <i>Audit Fees</i> | 0.253** | 0.026 | 0.270** | 0.032 |
| <i>Tax Fees</i> | 0.010 | 0.411 | 0.007 | 0.580 |
| <i>Other Fees</i> | 0.013 | 0.204 | 0.015 | 0.161 |
| <i>Intercept</i> | -4.506*** | 0.000 | -4.930*** | 0.000 |
| Cluster by Company | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | Yes | |
| <i>Industry Fixed Effects</i> | Yes | | Yes | |
| Number of Observations | 8,801 | | 7,272 | |
| Pseudo R-squared | 0.035 | | 0.038 | |
| Area under ROC curve | 0.645 | | 0.649 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Misstatement*. Column (2) is conditioned on the observation not having an auditor switch or a benefit plan auditor switch during the current or preceding year. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using one-tailed tests when there is a directional prediction and two-tailed tests otherwise. All variables are defined in Appendix A.

TABLE 4, Cont.

Association between Misstatements and *SameAU*

Panel B

| | (1) | | (2) | |
|-------------------------------------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU</i> _{<i>t-1</i>} | -0.213** | 0.040 | -0.260** | 0.030 |
| <i>Size</i> | -0.250*** | 0.001 | -0.241*** | 0.004 |
| <i>MA</i> | -0.226 | 0.257 | -0.083 | 0.741 |
| <i>BTM</i> | 0.298*** | 0.004 | 0.338*** | 0.003 |
| <i>Leverage</i> | 0.513 | 0.116 | 0.617* | 0.078 |
| <i>FIN</i> | 0.225* | 0.080 | 0.110 | 0.423 |
| <i>Loss</i> | 0.185 | 0.203 | 0.098 | 0.558 |
| <i>BigN</i> | 0.299 | 0.176 | 0.268 | 0.235 |
| <i>Audit Fees</i> | 0.277** | 0.018 | 0.280** | 0.029 |
| <i>Tax Fees</i> | 0.013 | 0.301 | 0.012 | 0.400 |
| <i>Other Fees</i> | 0.009 | 0.399 | 0.012 | 0.281 |
| <i>Auditor Change</i> | 0.233 | 0.288 | | |
| <i>Influence</i> | 0.393 | 0.440 | -0.016 | 0.974 |
| <i>National_Leader</i> | 0.164 | 0.171 | 0.16 | 0.377 |
| <i>City_Leader</i> | -0.002 | 0.985 | 0.058 | 0.664 |
| <i>Total_Accrual</i> | 0.106 | 0.783 | 0.192 | 0.665 |
| <i>ChangeREC</i> | -2.149* | 0.096 | -0.823 | 0.610 |
| <i>ChangeINV</i> | 0.601 | 0.752 | -0.379 | 0.868 |
| <i>Soft_Assets</i> | -1.049*** | 0.004 | -1.042*** | 0.006 |
| <i>ChangeSALE</i> | 0.15 | 0.351 | 0.056 | 0.803 |
| <i>ChangeROA</i> | 0.588* | 0.090 | 0.897* | 0.094 |
| <i>ChangeEMP</i> | -0.274 | 0.292 | -0.212 | 0.535 |
| <i>Lease</i> | -0.104 | 0.674 | -0.105 | 0.684 |
| <i>ABRET</i> | -0.181* | 0.100 | -0.272* | 0.067 |
| <i>LagABRET</i> | -0.062 | 0.290 | -0.003 | 0.966 |
| <i>Intercept</i> | -3.931*** | 0.001 | -4.214*** | 0.002 |
| Cluster by Company | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | Yes | |
| <i>Industry Fixed Effects</i> | Yes | | Yes | |
| Number of Observations | 8,361 | | 6,912 | |
| Pseudo R-squared | 0.044 | | 0.046 | |
| Area under ROC curve | 0.662 | | 0.662 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Misstatement*. Column (2) is conditioned on the observation not have a financial statement auditor switch or a benefit plan auditor switch in the current or previous year. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using one-tailed tests when there is a directional prediction and two-tailed tests otherwise. All variables are defined in Appendix A.

TABLE 4, Cont.

Association between Misstatements and *SameAU*

Panel C: Benefit Plan Complexity

| | (1) | | (2) | | (3) | | (4) | |
|--|-------------|---------|-------------|---------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU_{t-1}</i> | -0.260** | 0.026 | -0.283** | 0.014 | -0.273** | 0.013 | -0.276** | 0.016 |
| <i>Size</i> | -0.217*** | 0.007 | -0.212*** | 0.009 | -0.211*** | 0.009 | -0.207** | 0.012 |
| <i>MA</i> | -0.270 | 0.170 | -0.264 | 0.179 | -0.265 | 0.179 | -0.258 | 0.190 |
| <i>BTM</i> | 0.292*** | 0.004 | 0.294*** | 0.003 | 0.297*** | 0.003 | 0.296*** | 0.003 |
| <i>Leverage</i> | 0.357 | 0.296 | 0.392 | 0.248 | 0.395 | 0.245 | 0.389 | 0.253 |
| <i>FIN</i> | 0.216* | 0.099 | 0.221* | 0.093 | 0.220* | 0.092 | 0.219* | 0.095 |
| <i>Loss</i> | 0.188 | 0.182 | 0.187 | 0.186 | 0.184 | 0.193 | 0.180 | 0.202 |
| <i>BigN</i> | 0.369* | 0.082 | 0.360* | 0.089 | 0.355* | 0.095 | 0.352* | 0.097 |
| <i>Audit Fees</i> | 0.222* | 0.063 | 0.228* | 0.057 | 0.233* | 0.052 | 0.235** | 0.047 |
| <i>Tax Fees</i> | 0.014 | 0.272 | 0.015 | 0.254 | 0.015 | 0.255 | 0.014 | 0.257 |
| <i>Other Fees</i> | 0.011 | 0.261 | 0.011 | 0.277 | 0.011 | 0.262 | 0.011 | 0.275 |
| <i>Union_{t-1}</i> | 0.209 | 0.349 | | | | | | |
| <i>SameAU_{t-1} x Union_{t-1}</i> | -0.035 | 0.897 | | | | | | |
| <i>Real Estate_{t-1}</i> | | | -0.086 | 0.737 | | | | |
| <i>SameAU_{t-1} x Real Estate_{t-1}</i> | | | 0.096 | 0.763 | | | | |
| <i>Joint Ventures_{t-1}</i> | | | | | -1.289 | 0.221 | | |
| <i>SameAU_{t-1} x Joint Ventures_{t-1}</i> | | | | | 0.925 | 0.452 | | |
| <i>ESOP_{t-1}</i> | | | | | | | -0.151 | 0.594 |
| <i>SameAU_{t-1} x ESOP_{t-1}</i> | | | | | | | 0.045 | 0.888 |
| <i>Intercept</i> | -3.982*** | 0.002 | -4.074*** | 0.001 | -4.152*** | 0.001 | -4.173*** | 0.001 |
| Cluster by Company | Yes | | Yes | | Yes | | Yes | |
| Year Fixed Effects | Yes | | Yes | | Yes | | Yes | |
| Industry Fixed Effects | Yes | | Yes | | Yes | | Yes | |
| Number of Observations | 8,207 | | 8,207 | | 8,207 | | 8,207 | |
| Pseudo R-squared | 0.040 | | 0.040 | | 0.040 | | 0.040 | |
| Area under ROC curve | 0.653 | | 0.653 | | 0.653 | | 0.653 | |

TABLE 4, Cont.

Association between Misstatements and *SameAU*

Panel C: Benefit Plan Complexity, Cont.

Note: This table presents results of estimating logistic regressions. The dependent variable is *Misstatement*. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using one-tailed tests when there is a directional prediction and two-tailed tests otherwise. All variables are defined in Appendix A.

TABLE 5

Association between Payroll-Related Misstatements and *SameAU*

Panel A: Payroll-Related Misstatements

| | (1) | | (2) | |
|-------------------------------------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU</i> _{<i>t-1</i>} | -0.711** | 0.013 | -0.880*** | 0.005 |
| <i>Size</i> | -0.245 | 0.106 | -0.285* | 0.056 |
| <i>MA</i> | -0.090 | 0.882 | -0.215 | 0.725 |
| <i>BTM</i> | 0.197 | 0.655 | 0.136 | 0.768 |
| <i>Leverage</i> | 0.490 | 0.660 | 0.428 | 0.711 |
| <i>FIN</i> | 0.052 | 0.883 | 0.121 | 0.758 |
| <i>Loss</i> | 0.577 | 0.101 | 0.692* | 0.051 |
| <i>BigN</i> | 0.958 | 0.141 | 0.594 | 0.382 |
| <i>Audit Fees</i> | 0.360 | 0.118 | 0.450** | 0.047 |
| <i>Tax Fees</i> | 0.010 | 0.795 | 0.007 | 0.855 |
| <i>Other Fees</i> | 0.015 | 0.553 | 0.004 | 0.894 |
| <i>Intercept</i> | -7.119*** | 0.005 | -7.852*** | 0.003 |
| Cluster by Company | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | Yes | |
| <i>Industry Fixed Effects</i> | Yes | | Yes | |
| Number of Observations | 8,094 | | 6,607 | |
| Pseudo R-squared | 0.120 | | 0.124 | |
| Area under ROC curve | 0.798 | | 0.798 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Payroll-Related Misstatement* and the sample is conditional on the company having no other types of misstatements. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using one-tailed tests when there is a directional prediction and two-tailed tests otherwise. All variables are defined in Appendix A.

TABLE 5, Cont.

Association between Payroll-Related Misstatements and *SameAU*

Panel B: Benefit Plan Complexity

| | (1) | | (2) | | (3) | |
|--|-------------|---------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU</i> _{<i>t-1</i>} | -0.809** | 0.013 | -0.816** | 0.016 | -0.778** | 0.014 |
| <i>Size</i> | -0.253 | 0.121 | -0.259 | 0.104 | -0.219 | 0.177 |
| <i>MA</i> | -0.214 | 0.724 | -0.267 | 0.657 | -0.149 | 0.806 |
| <i>BTM</i> | 0.041 | 0.941 | 0.053 | 0.902 | 0.064 | 0.908 |
| <i>Leverage</i> | 0.273 | 0.814 | 0.294 | 0.798 | 0.289 | 0.804 |
| <i>FIN</i> | 0.086 | 0.819 | 0.095 | 0.798 | 0.063 | 0.862 |
| <i>Loss</i> | 0.616 | 0.105 | 0.633 | 0.101 | 0.559 | 0.142 |
| <i>BigN</i> | 1.285* | 0.083 | 1.304* | 0.084 | 1.230* | 0.100 |
| <i>Audit Fees</i> | 0.328 | 0.165 | 0.319 | 0.179 | 0.372 | 0.119 |
| <i>Tax Fees</i> | 0.028 | 0.514 | 0.029 | 0.503 | 0.029 | 0.508 |
| <i>Other Fees</i> | 0.006 | 0.833 | 0.006 | 0.838 | 0.006 | 0.815 |
| <i>Union</i> _{<i>t-1</i>} | 0.137 | 0.791 | | | | |
| <i>SameAU</i> _{<i>t-1</i>} x <i>Union</i> _{<i>t-1</i>} | 0.087 | 0.913 | | | | |
| <i>Real Estate</i> _{<i>t-1</i>} | | | 0.580 | 0.321 | | |
| <i>SameAU</i> _{<i>t-1</i>} x <i>Real Estate</i> _{<i>t-1</i>} | | | 0.084 | 0.906 | | |
| <i>ESOP</i> _{<i>t-1</i>} | | | | | -0.717 | 0.323 |
| <i>SameAU</i> _{<i>t-1</i>} x <i>ESOP</i> _{<i>t-1</i>} | | | | | -0.014 | 0.989 |
| <i>Intercept</i> | -6.740*** | 0.010 | -6.515** | 0.012 | -7.439*** | 0.004 |
| Cluster by Company | Yes | | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | Yes | | Yes | |
| <i>Industry Fixed Effects</i> | Yes | | Yes | | Yes | |
| Number of Observations | 7,342 | | 7,342 | | 7,342 | |
| Pseudo R-squared | 0.133 | | 0.137 | | 0.137 | |
| Area under ROC curve | 0.809 | | 0.813 | | 0.812 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Payroll-Related Misstatement* and the sample is conditional on the company having no other types of misstatements. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using one-tailed tests when there is a directional prediction and two-tailed tests otherwise. All variables are defined in Appendix A.

TABLE 6

Association between Debt-Related Misstatements and *SameAU*

Panel A: Debt-Related Misstatements

| | (1) | | (2) | |
|-------------------------------------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU</i> _{<i>t-1</i>} | -0.598** | 0.026 | -0.741** | 0.021 |
| <i>Size</i> | -0.396** | 0.024 | -0.417** | 0.033 |
| <i>MA</i> | 0.237 | 0.686 | 0.011 | 0.985 |
| <i>BTM</i> | 0.411** | 0.031 | 0.424** | 0.031 |
| <i>Leverage</i> | 1.347* | 0.058 | 1.488** | 0.043 |
| <i>FIN</i> | 1.294*** | 0.001 | 1.059*** | 0.010 |
| <i>Loss</i> | 0.719** | 0.038 | 0.800** | 0.040 |
| <i>BigN</i> | 0.187 | 0.684 | 0.033 | 0.951 |
| <i>Audit Fees</i> | 0.393 | 0.184 | 0.434 | 0.199 |
| <i>Tax Fees</i> | 0.040 | 0.253 | 0.084** | 0.037 |
| <i>Other Fees</i> | 0.002 | 0.942 | 0.011 | 0.742 |
| <i>Intercept</i> | -9.373*** | 0.003 | -10.517*** | 0.004 |
| Cluster by Company | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | Yes | |
| <i>Industry Fixed Effects</i> | Yes | | Yes | |
| Number of Observations | 7,870 | | 6,651 | |
| Pseudo R-squared | 0.112 | | 0.140 | |
| Area under ROC curve | 0.788 | | 0.814 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Debt-Related Misstatement* and the sample is conditional on the company having no other types of misstatements. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using one-tailed tests when there is a directional prediction and two-tailed tests otherwise. All variables are defined in Appendix A.

TABLE 6, Cont.

Association between Debt-Related Misstatements and *SameAU*

Panel B: Benefit Plan Complexity

| | (1) | | (2) | | (3) | |
|---|-------------|---------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU</i> _{<i>t-1</i>} | -0.645** | 0.024 | -0.584** | 0.040 | -0.588** | 0.039 |
| <i>Size</i> | -0.424** | 0.019 | -0.427** | 0.016 | -0.424** | 0.025 |
| <i>MA</i> | 0.166 | 0.777 | 0.113 | 0.846 | 0.164 | 0.779 |
| <i>BTM</i> | 0.376* | 0.078 | 0.388* | 0.061 | 0.381* | 0.066 |
| <i>Leverage</i> | 1.277* | 0.067 | 1.239* | 0.078 | 1.271* | 0.072 |
| <i>FIN</i> | 1.261*** | 0.001 | 1.276*** | 0.001 | 1.262*** | 0.001 |
| <i>Loss</i> | 0.744** | 0.037 | 0.740** | 0.039 | 0.742** | 0.032 |
| <i>BigN</i> | 0.109 | 0.811 | 0.110 | 0.809 | 0.108 | 0.809 |
| <i>Audit Fees</i> | 0.424 | 0.172 | 0.409 | 0.190 | 0.425 | 0.158 |
| <i>Tax Fees</i> | 0.035 | 0.316 | 0.034 | 0.330 | 0.035 | 0.319 |
| <i>Other Fees</i> | -0.006 | 0.854 | -0.004 | 0.902 | -0.006 | 0.857 |
| <i>Union</i> _{<i>t-1</i>} | -0.112 | 0.862 | | | | |
| <i>SameAU</i> _{<i>t-1</i>} <i>x</i> <i>Union</i> _{<i>t-1</i>} | 0.239 | 0.779 | | | | |
| <i>Real Estate</i> _{<i>t-1</i>} | | | 0.563 | 0.269 | | |
| <i>SameAU</i> _{<i>t-1</i>} <i>x</i> <i>Real Estate</i> _{<i>t-1</i>} | | | -0.052 | 0.935 | | |
| <i>ESOP</i> _{<i>t-1</i>} | | | | | -0.006 | 0.994 |
| <i>SameAU</i> _{<i>t-1</i>} <i>x</i> <i>ESOP</i> _{<i>t-1</i>} | | | | | 0.015 | 0.988 |
| <i>Intercept</i> | -9.441*** | 0.006 | -9.167*** | 0.006 | -9.480*** | 0.003 |
| Cluster by Company | Yes | | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | Yes | | Yes | |
| <i>Industry Fixed Effects</i> | Yes | | Yes | | Yes | |
| Number of Observations | 7,346 | | 7,346 | | 7,346 | |
| Pseudo R-squared | 0.119 | | 0.124 | | 0.118 | |
| Area under ROC curve | 0.796 | | 0.798 | | 0.735 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Debt-Related Misstatement* and the sample is conditional on the company having no other types of misstatements. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using one-tailed tests when there is a directional prediction and two-tailed tests otherwise. All variables are defined in Appendix A.

TABLE 7
Characteristics of Benefit Plan Audit Quality

| | (1) | | (2) | |
|-------------------------------------|---------------------------|---------|--------------|---------|
| | Benefit Plan Restatements | | Late Filings | |
| | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU</i> | -0.853 | 0.211 | 0.459** | 0.039 |
| <i>BigN_bp</i> | 0.454 | 0.521 | -0.305 | 0.194 |
| <i>Size</i> | -0.146 | 0.282 | -0.122*** | 0.004 |
| <i>Growth</i> | 1.193 | 0.237 | 0.634 | 0.108 |
| <i>ChangeEMP</i> | 0.594 | 0.158 | 0.122 | 0.747 |
| <i>Loss</i> | -0.576 | 0.422 | 0.388** | 0.019 |
| <i>Influence</i> | 0.605 | 0.744 | -0.218 | 0.666 |
| <i>Benefit Plan City Specialist</i> | -0.216 | 0.631 | -0.244* | 0.091 |
| <i>Audit Tenure_bp</i> | 0.315 | 0.530 | 0.379*** | 0.005 |
| <i>Busy_bp</i> | 0.931 | 0.201 | 0.354 | 0.281 |
| <i>Number_of_plans</i> | -0.692 | 0.334 | 0.375 | 0.176 |
| <i>Days_bw_opinions</i> | -0.170 | 0.754 | | |
| <i>Union</i> | 1.043*** | 0.005 | 0.025 | 0.891 |
| <i>Real Estate</i> | 0.825** | 0.048 | 0.266 | 0.152 |
| <i>Joint Ventures</i> | 1.235 | 0.127 | 0.054 | 0.921 |
| <i>ESOP</i> | 1.245*** | 0.002 | -0.046 | 0.807 |
| <i>Intercept</i> | -3.829 | 0.129 | -11.213*** | 0.000 |
| Cluster by Company | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | Yes | |
| <i>Industry Fixed Effects</i> | No | | No | |
| Number of Observations | 8,056 | | 8,056 | |
| Pseudo R-squared | 0.111 | | 0.045 | |
| Area under ROC curve | 0.802 | | 0.671 | |

Note: This table presents results of estimating logistic regressions. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using two-tailed tests. All variables are defined in Appendix A. My dependent variables are listed above each column.

TABLE 8
Characteristics of Benefit Plan Quality

| | (1) | | (2) | |
|-------------------------------------|------------------------------------|---------|-------------|---------|
| | Excise Taxes or Late Contributions | | EBSA Fines | |
| | Coefficient | p-value | Coefficient | p-value |
| <i>SameAU</i> | 0.456 | 0.295 | -0.878 | 0.125 |
| <i>BigN_bp</i> | 0.042 | 0.924 | 1.153** | 0.023 |
| <i>Size</i> | -0.094 | 0.207 | 0.125 | 0.591 |
| <i>Growth</i> | 0.568 | 0.203 | -3.180 | 0.332 |
| <i>ChangeEMP</i> | 0.889* | 0.062 | 0.379 | 0.703 |
| <i>Loss</i> | 0.082 | 0.720 | 0.032 | 0.975 |
| <i>Influence</i> | -0.414 | 0.640 | -0.166 | 0.925 |
| <i>Benefit Plan City Specialist</i> | -0.173 | 0.383 | 1.990** | 0.012 |
| <i>Audit Tenure_bp</i> | 0.278 | 0.168 | 1.578** | 0.036 |
| <i>Busy_bp</i> | -0.259 | 0.577 | 1.381 | 0.228 |
| <i>Number_of_Plans</i> | 0.636* | 0.051 | -0.181 | 0.894 |
| <i>Days_bw_opinions</i> | -0.063 | 0.857 | 0.757 | 0.584 |
| <i>Union</i> | 0.631** | 0.015 | 1.399** | 0.039 |
| <i>Real Estate</i> | 0.363 | 0.184 | 0.057 | 0.938 |
| <i>Joint Ventures</i> | 0.467 | 0.393 | | |
| <i>ESOP</i> | -0.255 | 0.328 | 0.338 | 0.473 |
| <i>Intercept</i> | -4.164** | 0.023 | -13.987 | 0.116 |
| Cluster by Company | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | No | |
| <i>Industry Fixed Effects</i> | No | | No | |
| Number of Observations | 8,056 | | 8,056 | |
| Pseudo R-squared | 0.032 | | 0.163 | |
| Area under ROC curve | 0.660 | | 0.812 | |

Note: This table presents results of estimating logistic regressions. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using two-tailed tests. All variables are defined in Appendix A. My dependent variables are listed above each column.

TABLE 9

Characteristics of Switching Benefit Plan Auditors

Panel A: Descriptive Statistics, *SameAU* in the Prior Year

| Variables | N | Mean | Std. Dev. | 25% | Median | 75% |
|---|----------|-------------|------------------|------------|---------------|------------|
| <i>Size</i> | 5,033 | 0.07 | 0.26 | 0 | 0 | 0 |
| <i>Growth</i> | 5,033 | 8.23 | 1.81 | 6.97 | 8.09 | 9.52 |
| <i>ChangeEMP</i> | 5,033 | 0.08 | 0.18 | -0.01 | 0.05 | 0.13 |
| <i>Loss</i> | 5,033 | -0.05 | 0.19 | -0.11 | -0.05 | 0.02 |
| <i>BigN_bp_{t-1}</i> | 5,033 | 0.15 | 0.36 | 0 | 0 | 0 |
| <i>Influence</i> | 5,033 | 0.86 | 0.35 | 1 | 1 | 1 |
| <i>Benefit Plan City Specialist_{t-1}</i> | 5,033 | 0.06 | 0.12 | 0.00 | 0.01 | 0.05 |
| <i>Audit Tenure_bp_{t-1}</i> | 5,033 | 0.33 | 0.47 | 0 | 0 | 1 |
| <i>Busy_bp_{t-1}</i> | 5,033 | 0.36 | 0.48 | 0 | 0 | 1 |
| <i>Number_of_Plans_{t-1}</i> | 5,033 | 0.04 | 0.20 | 0 | 0 | 0 |
| <i>Days_bw_opinions_{t-1}</i> | 5,033 | 0.84 | 0.28 | 0.69 | 0.69 | 1.10 |
| <i>Union_{t-1}</i> | 5,033 | 4.72 | 0.42 | 4.64 | 4.76 | 4.83 |
| <i>Real Estate_{t-1}</i> | 5,033 | 0.20 | 0.40 | 0 | 0 | 0 |
| <i>Joint Venture_{t-1}</i> | 5,033 | 0.14 | 0.35 | 0 | 0 | 0 |
| <i>ESOP_{t-1}</i> | 5,033 | 0.02 | 0.13 | 0 | 0 | 0 |

Note: All variables are defined in Appendix A.

TABLE 9, Cont.

Characteristics of Switching Benefit Plan Auditors

Panel B: Descriptive Statistics, *DifferentAu* in the Prior Year

| | | | | | | |
|---|------|-------|------|-------|-------|------|
| <i>Size</i> | 2932 | 0.08 | 0.27 | 0 | 0 | 0 |
| <i>Growth</i> | 2932 | 7.77 | 1.67 | 6.66 | 7.71 | 8.82 |
| <i>ChangeEMP</i> | 2932 | 0.08 | 0.19 | -0.01 | 0.05 | 0.13 |
| <i>Loss</i> | 2932 | -0.06 | 0.21 | -0.11 | -0.04 | 0.02 |
| <i>BigN_bp_{t-1}</i> | 2932 | 0.17 | 0.37 | 0 | 0 | 0 |
| <i>Influence</i> | 2932 | 0.02 | 0.12 | 0 | 0 | 0 |
| <i>Benefit Plan City Specialist_{t-1}</i> | 2932 | 0.04 | 0.10 | 0.00 | 0.01 | 0.03 |
| <i>Audit Tenure_bp_{t-1}</i> | 2932 | 0.37 | 0.48 | 0 | 0 | 1 |
| <i>Busy_bp_{t-1}</i> | 2932 | 0.59 | 0.49 | 0 | 1 | 1 |
| <i>Number_of_Plans_{t-1}</i> | 2932 | 0.04 | 0.19 | 0 | 0 | 0 |
| <i>Days_bw_opinions_{t-1}</i> | 2932 | 0.83 | 0.27 | 0.69 | 0.69 | 0.69 |
| <i>Union_{t-1}</i> | 2932 | 4.75 | 0.45 | 4.63 | 4.76 | 4.84 |
| <i>Real Estate_{t-1}</i> | 2932 | 0.23 | 0.42 | 0 | 0 | 0 |
| <i>Joint Venture_{t-1}</i> | 2932 | 0.14 | 0.35 | 0 | 0 | 0 |
| <i>ESOP_{t-1}</i> | 2932 | 0.01 | 0.10 | 0 | 0 | 0 |

Note: All variables are defined in Appendix A.

TABLE 9, Cont.

Characteristics of Switching Benefit Plan Auditors

Panel C: Switching Benefit Plan Auditor

| | (1) | | (2) | |
|---|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value |
| <i>Size</i> | -0.180*** | 0.000 | 0.070 | 0.206 |
| <i>Growth</i> | -0.405 | 0.352 | 0.886* | 0.052 |
| <i>ChangeEMP</i> | -0.377 | 0.323 | 0.607* | 0.089 |
| <i>Loss</i> | 0.305* | 0.053 | 0.136 | 0.503 |
| <i>BigN_bp_{t-1}</i> | 0.553*** | 0.005 | 1.171*** | 0.002 |
| <i>Influence</i> | 0.273 | 0.609 | 0.848 | 0.215 |
| <i>Benefit Plan City Specialist_{t-1}</i> | -0.176 | 0.153 | -0.355** | 0.022 |
| <i>Audit Tenure_bp_{t-1}</i> | 0.010 | 0.937 | -0.784*** | 0.000 |
| <i>Busy_bp_{t-1}</i> | -0.131 | 0.673 | -0.232 | 0.607 |
| <i>Number_of_Plans_{t-1}</i> | -0.215 | 0.375 | 0.103 | 0.748 |
| <i>Days_bw_opinions_{t-1}</i> | 0.095 | 0.494 | 0.049 | 0.789 |
| <i>Union_{t-1}</i> | 0.015 | 0.926 | -0.099 | 0.634 |
| <i>Real Estate_{t-1}</i> | 0.325* | 0.053 | 0.199 | 0.385 |
| <i>Joint Venture_{t-1}</i> | -0.370 | 0.473 | 0.134 | 0.838 |
| <i>ESOP_{t-1}</i> | 0.125 | 0.421 | -0.346 | 0.128 |
| <i>Intercept</i> | -1.688** | 0.037 | -2.179** | 0.048 |
| Cluster by Company | Yes | | Yes | |
| <i>Year Fixed Effects</i> | Yes | | Yes | |
| <i>Industry Fixed Effects</i> | Yes | | Yes | |
| Number of Observations | 5,033 | | 2,932 | |
| Pseudo R-squared | 0.036 | | 0.068 | |
| Area under ROC curve | 0.646 | | 0.685 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Switch_bp*. For column (1) the sample is conditional on the company having the same audit firm for the financial statement audit and the benefit plan audit in the prior period. For column (2) the sample is conditional on the company not having the same audit firm for the financial statement audit and the benefit plan audit in the prior period. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using two-tailed tests. All variables are defined in Appendix A.

TABLE 10**Characteristics of Switching Financial Statement Auditors****Panel A: Descriptive Statistics**

| Variables | N | Mean | Std. Dev. | 25% | Median | 75% |
|--------------------------------------|----------|-------------|------------------|------------|---------------|------------|
| <i>Switch_t</i> | 5,028 | 0.02 | 0.15 | 0 | 0 | 0 |
| <i>Growth_{t-1}</i> | 5,028 | 0.08 | 0.19 | -0.02 | 0.05 | 0.13 |
| <i>Absdacc_{t-1}</i> | 5,028 | 0.37 | 1.23 | 0.03 | 0.07 | 0.20 |
| <i>InvREC_{t-1}</i> | 5,028 | 0.26 | 0.17 | 0.12 | 0.24 | 0.35 |
| <i>GC_{t-1}</i> | 5,028 | 0.00 | 0.05 | 0 | 0 | 0 |
| <i>MODOP_{t-1}</i> | 5,028 | 0.54 | 0.50 | 0 | 1 | 1 |
| <i>Audit Tenure_{t-1}</i> | 5,028 | 0.10 | 0.30 | 0 | 0 | 0 |
| <i>ROA_{t-1}</i> | 5,028 | 0.05 | 0.08 | 0.02 | 0.05 | 0.08 |
| <i>Loss_{t-1}</i> | 5,028 | 0.15 | 0.36 | 0 | 0 | 0 |
| <i>Leverage_{t-1}</i> | 5,028 | 0.60 | 0.21 | 0.46 | 0.59 | 0.72 |
| <i>Cash_{t-1}</i> | 5,028 | 0.08 | 0.09 | 0.02 | 0.05 | 0.11 |
| <i>Mismatch_{t-1}</i> | 5,028 | 0.07 | 0.25 | 0 | 0 | 0 |
| <i>National Leader_{t-1}</i> | 5,028 | 0.31 | 0.46 | 0 | 0 | 1 |
| <i>Size_{t-1}</i> | 5,028 | 8.00 | 1.78 | 6.77 | 7.91 | 9.16 |
| <i>MA_{t-1}</i> | 5,028 | 0.98 | 0.14 | 1 | 1 | 1 |
| <i>SameAU_{t-1}</i> | 5,028 | 0.58 | 0.49 | 0 | 1 | 1 |
| <i>Switch_bp_{t-1}</i> | 5,028 | 0.07 | 0.26 | 0 | 0 | 0 |

Note: All variables are defined in Appendix A.

TABLE 10, Cont.

Characteristics of Switching Financial Statement Auditors

Panel B: SameAU and Switching

| | (1) | | (2) | |
|--------------------------------------|-------------|---------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value |
| <i>Growth_{t-1}</i> | 0.044 | 0.926 | 0.291 | 0.670 |
| <i>Absdacc_{t-1}</i> | -0.057 | 0.492 | -0.119 | 0.272 |
| <i>InvREC_{t-1}</i> | 0.420 | 0.456 | 0.493 | 0.549 |
| <i>GC_{t-1}</i> | 0.690 | 0.458 | | |
| <i>MODOP_{t-1}</i> | -0.126 | 0.553 | -0.137 | 0.677 |
| <i>Audit Tenure_{t-1}</i> | -0.706** | 0.044 | -1.385** | 0.029 |
| <i>ROA_{t-1}</i> | -0.717 | 0.665 | -0.559 | 0.801 |
| <i>Loss_{t-1}</i> | 0.389 | 0.263 | 0.431 | 0.383 |
| <i>Leverage_{t-1}</i> | 0.951** | 0.042 | 0.961 | 0.113 |
| <i>Cash_{t-1}</i> | -0.388 | 0.755 | 0.852 | 0.588 |
| <i>Mismatch_{t-1}</i> | 0.686* | 0.057 | 0.268 | 0.600 |
| <i>National Leader_{t-1}</i> | -0.317 | 0.171 | -0.350 | 0.265 |
| <i>Size_{t-1}</i> | -0.321*** | 0.000 | -0.363*** | 0.003 |
| <i>MA_{t-1}</i> | -1.034** | 0.047 | -0.888 | 0.259 |
| <i>SameAU_{t-1}</i> | -0.706*** | 0.002 | -1.314*** | 0.000 |
| <i>Intercept</i> | 0.516 | 0.693 | -1.212 | 0.416 |
| Cluster by Company | Yes | | Yes | |
| Year Fixed Effects | Yes | | Yes | |
| Industry Fixed Effects | Yes | | Yes | |
| Number of Observations | 5,028 | | 4,355 | |
| Pseudo R-squared | 0.100 | | 0.127 | |
| Area under ROC curve | 0.763 | | 0.792 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Switch*. For column (2) the sample is conditioned on the company not having switched its benefit plan audit firm in the current or prior period. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using two-tailed tests. All variables are defined in Appendix A.

TABLE 10, Cont.

Characteristics of Switching Financial Statement Auditors

Panel C: Selecting a New Benefit Plan Audit Firm

| | (1) | |
|--------------------------------------|-------------|---------|
| | Coefficient | p-value |
| <i>Growth_{t-1}</i> | 0.037 | 0.937 |
| <i>Absdacc_{t-1}</i> | -0.063 | 0.457 |
| <i>InvREC_{t-1}</i> | 0.340 | 0.550 |
| <i>GC_{t-1}</i> | 0.482 | 0.610 |
| <i>MODOP_{t-1}</i> | -0.084 | 0.695 |
| <i>Audit Tenure_{t-1}</i> | -0.722** | 0.036 |
| <i>ROA_{t-1}</i> | -0.892 | 0.585 |
| <i>Loss_{t-1}</i> | 0.364 | 0.293 |
| <i>Leverage_{t-1}</i> | 0.940** | 0.041 |
| <i>Cash_{t-1}</i> | -0.557 | 0.649 |
| <i>Mismatch_{t-1}</i> | 0.639* | 0.059 |
| <i>National Leader_{t-1}</i> | -0.269 | 0.257 |
| <i>Size_{t-1}</i> | -0.354*** | 0.000 |
| <i>MA_{t-1}</i> | -1.046** | 0.040 |
| <i>Switch_bp_{t-1}</i> | 0.664** | 0.016 |
| <i>Intercept</i> | 0.193 | 0.880 |
| Cluster by Company | Yes | |
| Year Fixed Effects | Yes | |
| Industry Fixed Effects | Yes | |
| Number of Observations | 5,028 | |
| Pseudo R-squared | 0.094 | |
| Area under ROC curve | 0.760 | |

Note: This table presents results of estimating logistic regressions. The dependent variable is *Switch*. ***, **, and * denote statistical significance at the 0.01, 0.05 and 0.10 levels, respectively, using two-tailed tests. All variables are defined in Appendix A.

FIGURE 1

Timeline for Knowledge Spillover from the Benefit Plan Audit to the Financial Statement Audit

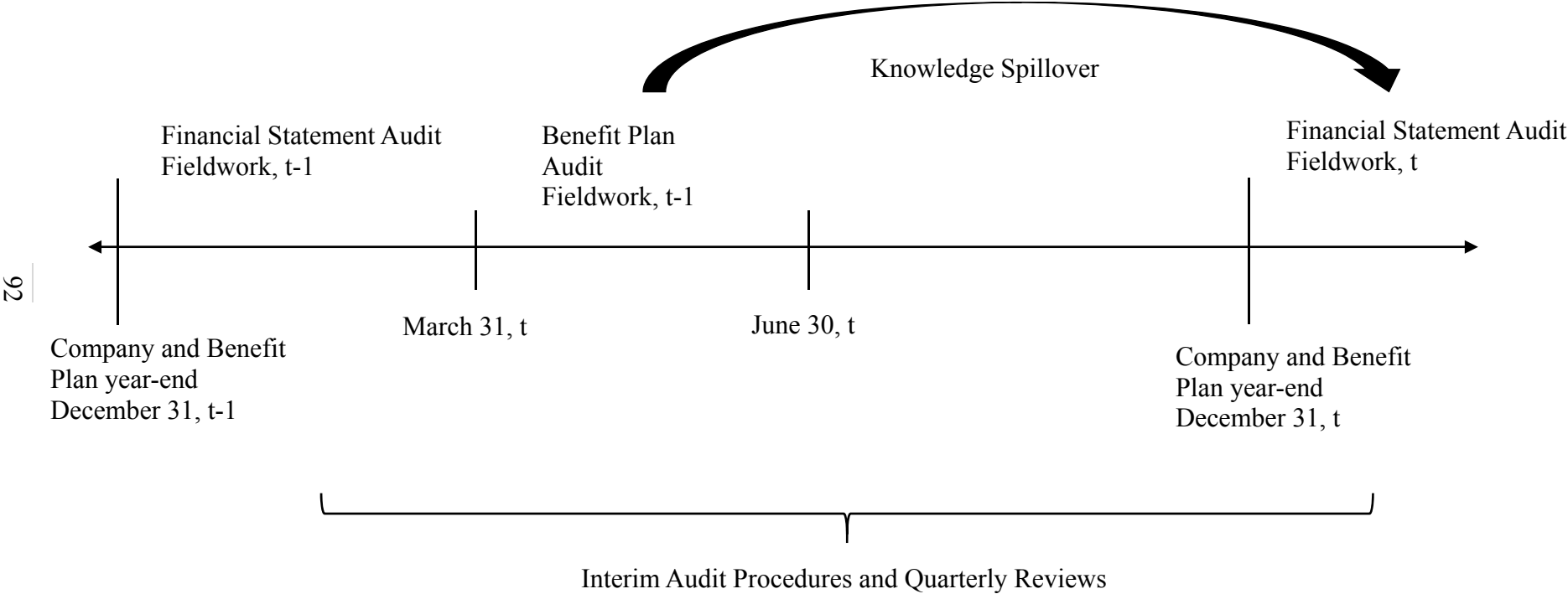


FIGURE 2

Timeline for Knowledge Spillover from the Financial Statement Audit to the Benefit Plan Audit

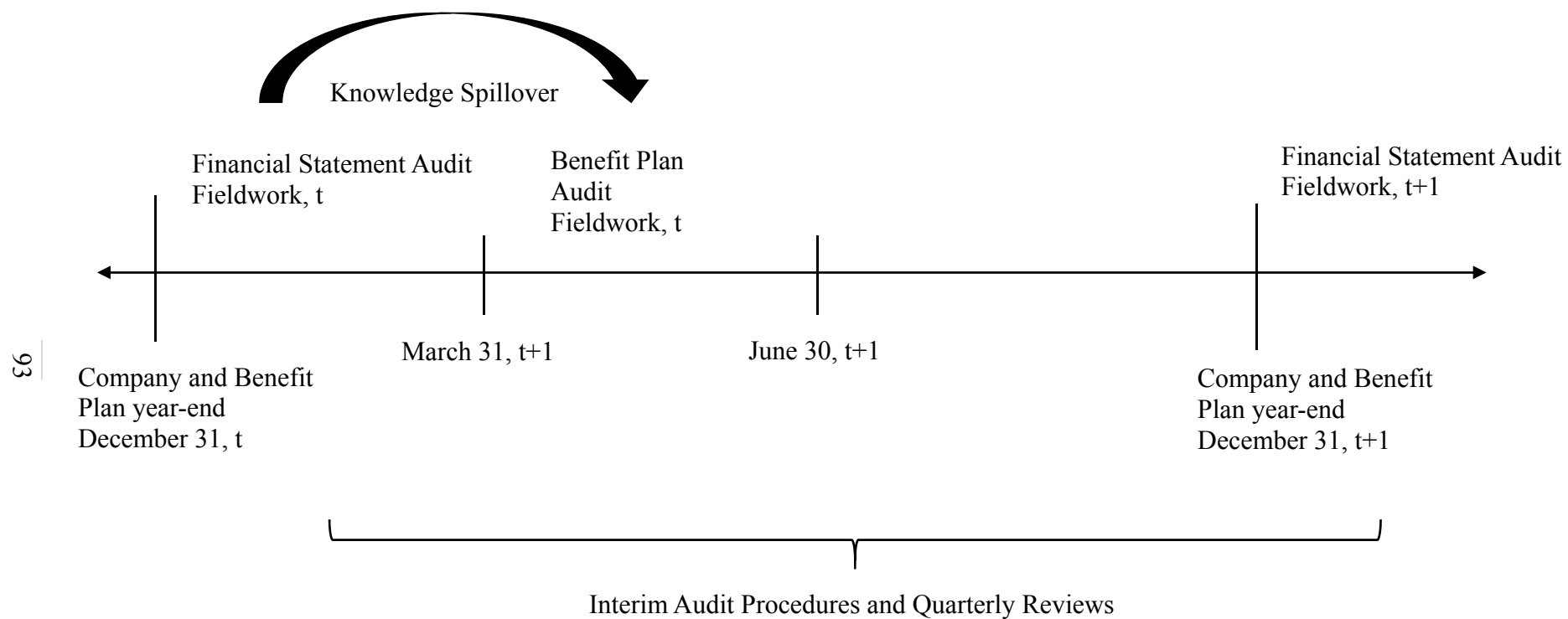


FIGURE 3

Percentage of Companies with *SameAU* by Audit Firm

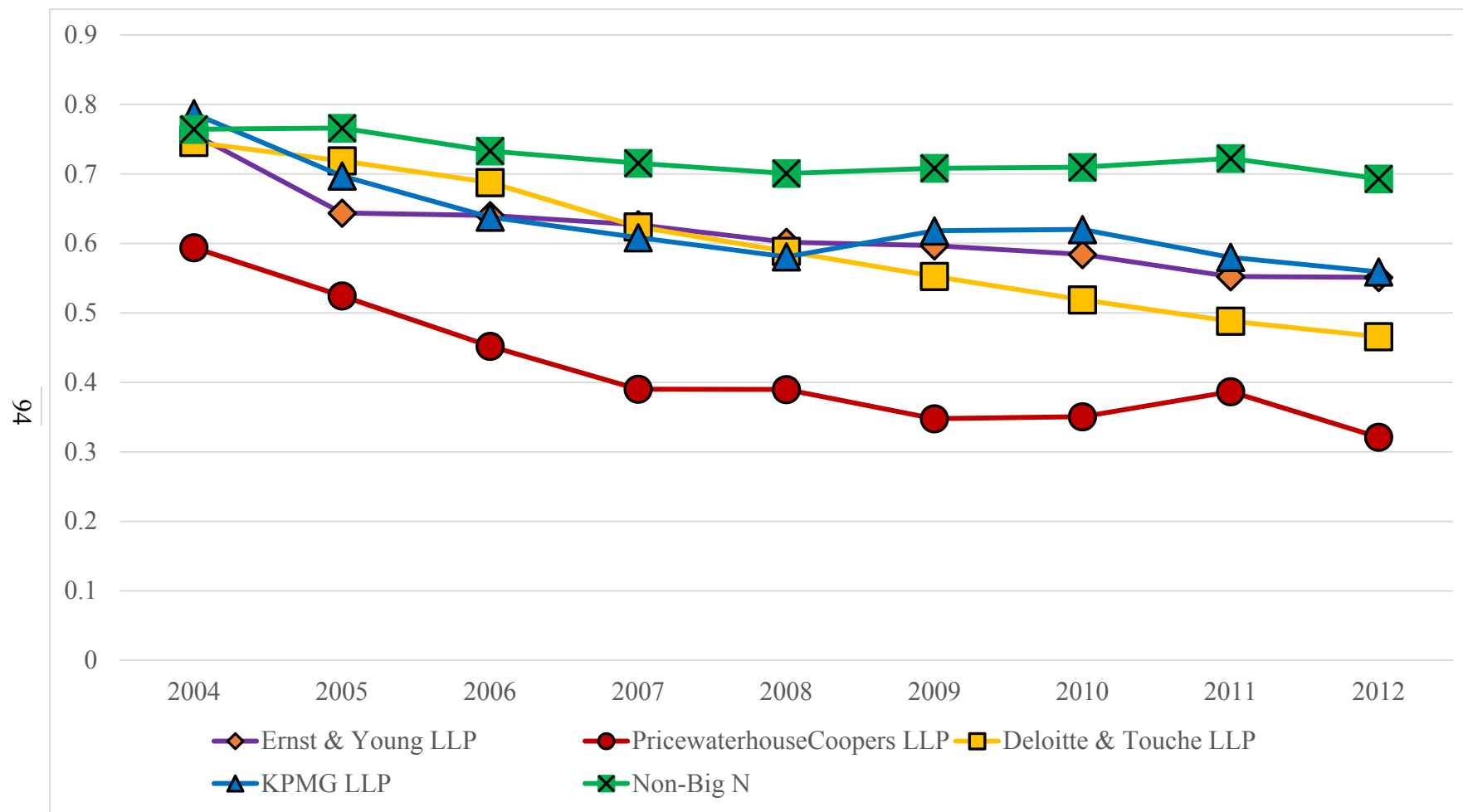


FIGURE 4

Percentage of Benefit Plan Audits by Audit Firm

