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Julie Persellin

Trinity University, jpersell@trinity.edu

Jaime Schmidt

Michael S. Wilkins

Trinity University, mike.wilkins@trinity.edu

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Auditor Perceptions of Audit Workloads, Audit Quality, and the Auditing Profession

JULIE PERSELLIN, *Trinity University*

JAIME J. SCHMIDT, *University of Texas at Austin*

MIKE WILKINS, *Trinity University*

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Auditor Perceptions of Audit Workloads, Audit Quality, and the Auditing Profession

Abstract

In this study, we use a survey instrument to obtain perspectives from over 700 auditors about present-day audit workloads, the relationship between audit workloads and audit quality, and auditing as a career. Our findings indicate that auditors are working, on average, five hours per week above the threshold at which they believe audit quality begins to deteriorate and often 20 hours above this threshold at the peak of busy season. We find that auditors perceive workload fatigue as having the largest negative impact on morale, and understaffing and staff turnover as being two of the biggest impediments to delivering a high quality audit. We also find that auditors are much less excited about public accounting as a career today than they were when they first entered the profession; however, a few factors moderate this relationship. First, although workloads negatively impact auditors' views about the profession, the impact is strongest as auditors are required to work beyond the level at which they believe audit quality begins to suffer. Additionally, views about the profession are less negative when auditors believe that they are rewarded for taking a strong stance on audit issues and when they are rewarded more for effectiveness than for efficiency. Our findings provide support for the PCAOB's concern that excessive workload could be a "root cause" of audit deficiencies and also provide useful insights for public accounting firms as they evaluate ways to attract and retain talented auditors.

Key words: auditing, audit quality, audit workloads, PCAOB

JEL classification: M42, M12

Auditor Perceptions of Audit Workloads, Audit Quality, and the Auditing Profession

1. Introduction

“By the end of busy season, everyone was burnt out and exhausted. I remember falling asleep mid sentence while giving instructions to a staff member after going several nights without more than one or two hours of sleep. There were many of us that still felt an obligation to the public and to our clients to perform our work with the utmost care, so I don't feel that the quality of work decreased proportionally to the level of physical and mental exhaustion. However, I do remember often seeing managers and partners that would sign off on just about anything as a particular job was winding up, especially towards the end of busy season.” [Survey respondent, senior level]

As accounting academics, we have many candid discussions with practicing auditors. Some of these discussions take place with former students who generally are working as staff or senior level auditors. Other discussions occur with managers and partners who are involved in a variety of campus events ranging from recruiting and alumni gatherings to advisory council meetings and national office updates. The most common threads running through all of these public practice discussions relate to workload, morale, and audit quality. Recent graduates consistently talk about workload and morale issues while audit partners focus on audit quality. In fact, we have had national partners tell us on multiple occasions that the most valuable thing we could do with our research would be to identify important threats and contributors to audit quality.

Like audit firm partners, the PCAOB is also keenly interested in audit quality. The mission of the PCAOB is “to oversee the audits of public companies in order to protect the interests of investors and further the public interest in the preparation of informative, accurate and independent audit reports.”¹ However, unlike practitioners whose frame of reference tends to be narrower, the PCAOB desires audit quality from the profession as a whole. Through the inspection process, the PCAOB is able to observe audit inputs and outcomes across a wide range of situations. This unique vantage point enables the Board to perform “root cause” analysis on inspection findings and identify problems that may represent systematic threats to audit quality. In a keynote address to the American Accounting Association, PCAOB board member, Jay Hanson, listed “workload pressures” as a potential root cause for their

¹ <http://pcaobus.org/About/History/Pages/default.aspx>

inspection findings from 2007 through 2010 (Hanson 2013). The following excerpt, taken from a speech at Baruch College's 2013 Financial Reporting Conference, elaborates:

“One exceptionally troubling issue that I sense is getting worse is the sheer number of hours that audit teams are expected to work ... If I were an audit committee member, I would be highly concerned if the work plan called for significantly more than 55 hours per week or if the actual sustained hours were much higher than that. How do you function if you are working 16 hours per day on a continual basis? How do you perform basic tasks, much less conduct the more difficult evaluations that require heightened skepticism and objectivity? How do you guard against the temptation to overlook difficult issues that will stretch out your workday even longer? If audit teams are working excessive hours, there is a problem.” (Cohn 2013a, 1)

In another recent presentation, Mr. Hanson noted that “an overworked and exhausted audit staff, manager, or partner cannot perform the job investors and audit committees expect”(Cohn 2013b, 1). As a whole, the comments made by regulators and practitioners suggest that the Holy Grail partners claim to be seeking (audit quality) may, in fact, be related to the very things that audit staff and seniors complain about the most (workload and morale).

The potential importance of audit workload is made even clearer by its formal inclusion in a number of recent initiatives to identify and improve audit quality. For example, the PCAOB's project on audit quality indicators (AQI) identifies billable hours as an important firm-level AQI,² and a recent PCAOB report states “measurements of staff workload could be monitored to highlight potential risks to audit quality, such as situations in which partner or staff workloads might impair those individuals' abilities to accomplish their assignments effectively” (PCAOB 2014, 26). Similar views appear to be held by both the Center For Audit Quality (CAQ) and the International Auditing and Assurance Standards Board (IAASB). The CAQ is pilot-testing in the 2014 audit cycle a potential set of AQIs that includes “key engagement team members' workload” (CAQ 2014, 11) and the IAASB notes that an important audit quality input is that auditors have “sufficient time allocated to them to perform the [audit] work” (IAASB 2014, 4). Overall, a number of important stakeholders and regulatory bodies seem to believe that audit quality is impacted by audit workload.

² http://pcaobus.org/News/Events/Documents/10162013_IAGMeeting/AQI_Report.pdf

The purpose of our study is to obtain perspectives from a large sample of practicing auditors about audit workloads, the relationship between audit workloads and audit quality, and auditing as a career. Similar to prior qualitative research (e.g., Cohen, Krishnamoorthy, and Wright 2010; Cohen, Krishnamoorthy, and Wright 2002) we attempt to capture the experiences of practitioners in the present-day audit environment. However, unlike prior research that has used semi-structured interviews to gain insights into the audit process, our analysis is based on surveys of practicing auditors that include both structured and free-response questions. We use the survey method because a large sample of responses allows us to better understand both the pervasiveness and the perceived consequences of heavy audit workloads. However, we also include open-ended, qualitative (i.e., free response) questions so that participants are able to provide additional insights.

Our analysis is based on responses from 776 current and former auditors, consisting of 266 staff, 354 seniors, 105 managers, 39 senior managers, and 12 partners. Survey respondents reported that the average public accounting workweek during busy season is approximately 65 hours, with an average maximum of 80 hours. These numbers reveal that in an average busy season workweek, auditors work 10 hours above the 55-hour mandate in place at most firms, with a further increase to 25 hours above the mandate during the busiest periods. Respondents also reported that during busy season, they exceed the number of billable hours mandated by their firms between 74% and 90% of the time. A particularly troubling part of our findings is that, on average, respondents also indicated that they believe audit quality deteriorates when they work beyond 60 hours per week. While we acknowledge that perceptions of audit quality may not align perfectly with actual audit quality, our findings do provide some support for the PCAOB's concern that audit workload could be one of the root causes of audit deficiencies.³

³ Although it may seem obvious that audit workloads and audit quality should be negatively related, Agoglia et al. (2010) find that when misstatement risk is high, auditors tend to choose a higher quality review format (i.e., face-to-face interviews rather than electronic reviews) even when they are experiencing workload pressure. This finding suggests that higher workloads may not necessarily decrease audit quality.

We also collected information related to auditors' morale and their attitudes about the auditing profession. We focused on these characteristics because prior research indicates that happiness influences job performance and could therefore affect audit quality. In addition, the findings could benefit accounting firms as they address the ever-present concerns related to employee turnover. In our survey, respondents reported that the biggest impediment to morale is workload fatigue. With regard to job satisfaction, staff reported the lowest level (4.57 out of 10), followed by seniors, managers, and partners (5.56, 6.73, and 6.90, respectively). Respondents also indicated that while they were "very excited," on average, about having a career in public accounting on the first day of their internship, they currently feel "unexcited" about or "indifferent" to their careers. These trends do not suggest an environment that is likely to breed high quality audits, especially given prior research documenting that employees who are higher in subjective well-being and/or positive affect (i.e., happiness) are more likely to exhibit superior performance and productivity (Lyubomirsky et al. 2006).

In our last set of tests, we attempt to identify some of the determinants of respondents' job satisfaction and their level of excitement about public accounting as a career. In a multivariate setting, we find that both measures are significantly lower for former auditors relative to current auditors and for auditors at Big 4 firms relative to auditors at smaller firms. We also find that both measures are increasing in auditor rank (e.g., partners and senior managers are more excited about public accounting than seniors and staff). The most interesting multivariate findings, however, relate to workloads and perceived rewards. For example, although average audit workloads do impact job satisfaction negatively, the relationship seems to be driven more by perceived threats to audit quality than by the number of hours themselves. We also find that job satisfaction and excitement about public accounting as a career are higher when respondents believe they are rewarded for effectiveness rather than efficiency and for taking a strong stance on audit issues. We find these results to be encouraging. The underlying theme seems to be that auditors would view the profession more favorably if their workloads didn't threaten audit quality

and if they were able to do what auditors are supposed to do – that is, conduct effective audits that hold clients to a high standard. We hope that our study will prove useful to audit firms, regulators, and other stakeholders as they evaluate the many challenges auditors and accounting firms face in the pursuit of high quality audits.

The remainder of the paper is organized as follows. In Section 2 we discuss the importance of workload and morale in current audit quality initiatives and also summarize relevant theories that provide insight into the relationships between audit workload, morale, and audit quality. In Section 3 we describe our survey method and respondent characteristics. In Section 4 we present our sample-wide survey responses and in Section 5 we partition those responses based on auditor rank, audit firm size, and current-versus-former auditor status. Section 6 provides additional analysis and Section 7 presents our summary and concluding remarks. Each major section opens with one or more qualitative responses from survey respondents that relate to that particular section's topic.

2. Background

Audit Quality Initiatives

“You get tired of 80 hour weeks. Your goal becomes making findings disappear to avoid more paperwork hassles and extra hours instead of spotlighting genuine issues.” [Survey respondent, staff level]

“We had a very good review process (performed by the managers and partner on the job) that came toward the end of the audit and that made me feel that the end work product was top quality.” [Survey respondent, manager level]

Professional standards have long considered personnel management an important part of quality control within audit firms. Originally developed by the AICPA and adopted by the PCAOB in 2002, the Elements of Quality Control – *QC 20, System of Quality Control for a CPA Firm's Accounting and Auditing Practice* – specifically states that the “quality of a firm's work ultimately depends on the integrity, objectivity, intelligence, competence, experience, and **motivation of personnel** who perform, supervise, and review the work” [emphasis added] (PCAOB 1997). However, only recently have standard setters

engaged in specific initiatives to identify more fully the inputs to audit quality, including personnel issues such as workload and its effect on morale.

In an effort to better inform policymaking and regulatory processes, as well as to aid audit committees, investors, and other stakeholders in assessing audit quality, the PCAOB undertook an Audit Quality Indicators Project in 2013. As part of this project, the Board developed an Audit Quality Framework. The framework states that developing and maintaining talented people is an important component of audit quality and describes operational inputs that should be monitored to maintain this “people factor” (PCAOB 2013). Specifically, the PCAOB cited, among other things, the potential impact on audit quality of excessive workloads and turnover of personnel (PCAOB 2013). Similarly, in February 2014, the IAASB issued its “Framework for Audit Quality” which outlines potential inputs and outputs associated with audit quality and identifies time pressure as a potential contextual factor that can affect audit quality (IAASB 2014).

The Center for Audit Quality (CAQ) applauded the efforts of the PCAOB, and noted that reliable audit quality indicators (AQIs) could also be used as a means to communicate to the audit committee engagement-specific quality metrics that might facilitate a deeper understanding of some of the key characteristics that contribute to a high quality audit (CAQ 2014). In particular, the CAQ noted that communicating AQIs to audit committees could ultimately lead to more in-depth conversations between auditors and audit committees about potential ways to manage risks to audit quality. The CAQ expressed the belief that AQIs could provide additional perspective on important aspects of a firm’s system of quality control, and stressed the importance of tying these indicators to the quality control standards.

Towards this end, the CAQ developed its own list of potential AQIs to be used to “promote robust discussions about an audit firm’s ability to support and perform quality audits.” (CAQ 2014, 2) Not surprisingly, workload – including trends in engagement hours – was mentioned as a key AQI. The CAQ noted that while an engagement team that is experiencing higher than expected overtime could be spending additional time to address an audit issue to maintain audit quality, the extra hours could also indicate that the team is overburdened, which could detrimentally affect audit quality (CAQ 2014). The

CAQ specifically suggests that workload levels in excess of a standard 40 hour work week should be disclosed to the audit committee to assist the audit committee in understanding “whether engagement teams have appropriate time to perform the audit, review and supervise the audit work, and address difficult issues, if and when they arise” (CAQ 2014, 11). In addition, the CAQ suggests that other specific metrics related to current and prior year workloads pertaining to key engagement team members be communicated to the audit committee, including average number of hours for each key member and workload by auditor rank (e.g., partner, manager, and staff), with a potential focus on the busy-season period. Our paper informs the efforts of the IAASB, PCAOB, and the CAQ by documenting these metrics and investigating whether workload is, in fact, perceived to be an important indicator of audit quality.

Academic Theory

“I believe that after a couple of months of working 60+ hours, employees begin to get burned out, which results in reduced work quality. From my experience, when you are over worked, in a high stress environment, and you are not getting enough sleep or exercise, and this continues for months on end, there is no possible way for you to be as productive, efficient, or sharp as you would be under normal circumstances. In this environment, decrease in quality of work is inevitable.” [Survey respondent, senior level]

Prior academic research indicates that excessive workload can cause employees to experience emotional exhaustion, depersonalization, and reduced personal accomplishment (Almer and Kaplan 2002; Fogarty et al. 2000; Rose 1983; Sanders 1998; Sweeney and Summers 2002). This phenomenon typically is referred to as “burnout.” Emotional exhaustion is thought to occur first, and is a response to excessive demands on a person’s psychological resources. It is “characterized by a lack of energy and a feeling that one’s emotional resources are used up” (Cordes and Dougherty 1993, 623). Depersonalization follows, as the employee starts to detach from clients and colleagues, and develops a callous, uncaring attitude as a way to minimize his or her emotional investment in the job (Jackson et al. 1986). Finally, feelings of diminished personal accomplishment may develop, characterized by low motivation and a decline in the employee’s feelings of competency and successful work achievement (Cordes and Dougherty 1993).

Burnout symptoms emerge when the combination of stressors is overwhelming or when one or more stressors rise to extreme levels. Maslach (1982) asserts that organizations should be cognizant of

burnout symptoms among employees because there is often a negative relationship between burnout and performance. For example, burnout has been shown to result in negative employee attitudes, decreased job satisfaction, higher turnover, lower morale, and deteriorating job performance (Cordes and Dougherty 1993; Leiter and Maslach 1988; Fogarty et al. 2000; Jackson et al. 1986; Maslach and Jackson 1981, 1986; Maslach and Leiter 1997; Shirom 1989). Further, employees who are significantly influenced by negative emotions in general often end up focusing almost exclusively on the source of these emotions rather than on engaging in productive behavior. In these situations, people “don’t process information as well, think creatively, or make good decisions. Frustration, anger, and stress cause an important part of us to shut down – the thinking, engaged part” (McKee 2014).

Although negative constructs tend to be the focus of most studies, Fogarty et al. (2000) express the need for a more holistic approach to the study of workload and other job stressors, noting that the impact of these stressors is not one-dimensional. Specifically, Fogarty et al. (2000) note that job stressors such as overload can have a positive or “eustress” component rather than always resulting in a negative or “distress” component. As an example, one staff level respondent in our survey stated, “Over the course of busy season I had an opportunity to learn a lot in a short period of time and repeat and practice [what I had learned] immediately on the next engagement. By the end of busy season, I had grown immensely as an auditor. Tough work, but the best time to learn.”

In the spirit of Fogarty et al. (2000), we solicit information about both positive and negative outcomes associated with audit workloads. Our general goal is to help accounting firms create an environment in which auditors are more excited about their careers and better able to provide high quality audits. While we do not attempt to specifically measure or test the burnout construct, some of our survey questions were informed by burnout research and by the negative consequences many people associate with heavy workloads at public accounting firms. For example, we ask respondents to identify what types of things suffer the most with increasing workloads and to rank the biggest impediments to morale and audit quality. However, to assess potential positive factors, we also ask respondents to identify what benefits are obtained from increasing workloads and to rank the biggest contributors to morale and audit

quality. Our analysis of these and other responses by auditor experience level, audit firm size, and current-versus-former auditor status yields a breadth of understanding that does not currently exist in the accounting literature and that should be valuable to public accounting firms, standard-setters, and audit committees as they address issues related to audit workloads, auditor morale, and audit quality.

3. Survey method and respondent characteristics

Our survey was distributed to 6,123 graduates of three universities in the Southwest – two large public universities and one small private university. All three schools offer a Master’s Degree in Accounting and feature an internship program with public accounting firms as a part of the fourth year of a qualifying student’s degree plan. In total, 1,544 respondents opened the survey and 1,363 surveys were completed (response rate=22%). Because the focus of our study is perceived audit quality, respondents who have never worked in the audit and assurance division of a public accounting firm were removed from the survey after the first question. This step removed 587 respondents (primarily people who are employed in tax divisions), resulting in a total of 776 usable surveys – 299 from current auditors and 477 from former auditors. Our primary tests combine these responses, but we perform additional tests to investigate potential differences between the groups.

In Table 1 we present demographic data for our survey respondents. The majority of our respondents (87 percent) represent Big 4 audit firms and are at the staff/senior auditor rank (80 percent). However, because our sample size is large we were able to obtain a reasonable number of mid-tier⁴ and small audit firm responses (41 and 60, respectively) and partner and manager responses (12 and 144, respectively). Our respondents are located primarily in the major Texas markets (i.e., Houston, Dallas/Fort Worth, San Antonio, and Austin) but 32 of the respondents work in New York City and 96 work in other locales. A large percentage of our respondents work in the energy & mining (25 percent) or financial services (18 percent) industries, consistent with the industry specializations dominant in these Texas cities. However, again, we note that our large sample size enables us to obtain responses from *all* the major industry classifications described on the accounting firm websites. Our sample is split

⁴ Respondents from mid-tier firms represent Grant Thornton LLP, McGladry & Pullen LLP, and BDO USA.

approximately evenly on gender, and includes respondents with a mean (median) age of 30 (29), mean (median) number of years as a CPA of 6.75 (5) and approximately three years of industry expertise. Overall, the breadth of our sample with respect to experience, rank, and industry provides us with a comprehensive dataset of practitioner perceptions that we believe should be generalizable to the population of auditors as a whole.

4. Survey responses

Audit Workloads, Reporting of Time, and Perceived Rewards for Effective Auditing

“The more we work, especially as we get to the end of busy season where we have been working 60+ hours for the past six weeks, the less focused we are on providing a quality audit and the more focused we are on just finishing. It's human nature.” [Survey respondent, senior level]

“In my view the quality of the work remains the same [throughout busy season] as the firm stresses audit quality and the contribution award is also based on the quality of work delivered and amount of hours billed.” [Survey respondent, senior level]

Table 2 presents data related to audit workloads, reporting of time, and perceived rewards. Panel A provides general summary measures related to hours worked and billable hours. Respondents reported working an average of 65.12 hours (median=65 hours) during their last busy season, with an average maximum of 79.54 hours (median=80 hours). The average minimum required number of billable hours is 53.96 (median=55 hours). On average, actual billable hours exceed the minimum approximately 74% of the time during busy season and are below the minimum only 8% of the time. Furthermore, over half of the respondents indicated that billable hours exceed the mandated minimum 90% of the time.

Panel B of Table 2 provides the first look at potential relationships between audit workloads and audit quality. With these questions, we asked respondents whether they believe they are “better auditors” if they work the same, more, or less hours than the minimum number mandated by their firm, or whether they believe that audit quality is not impacted by the number of hours worked. Twenty-eight percent of respondents indicated that they are better auditors when they work the minimum mandated hours, with 37% (6%) indicating that they are better auditors when they work less (more) than the minimum mandated hours. Over half of the respondents indicated that audit quality begins to deteriorate when

auditors work in excess of 60 hours per week, and only 29% of respondents believe that the quality of audit work is not impacted by the number of hours worked. Throughout the paper, we refer to the workload level at which auditors perceive audit quality begins to deteriorate as the audit quality workload threshold.

Taken together, the data from Panels A and B in Table 2 suggest the following. First, at least 65% of respondents would not classify themselves as “better auditors” if they have to work beyond 55 hours per week (the minimum mandated hours). Second, the average busy season workweek (65 hours) requires auditors to work ten hours more than the mandate, which essentially translates into an extra full day of work each week. Third, respondents indicate that audit quality begins to deteriorate when workloads are around 60 hours per week. This finding corroborates Sweeney and Summers’ (2002) assessment that busy season workloads of 63 hours per week caused accountants’ job burnout to “escalate to alarmingly high levels.” Overall, the data presented in Panel B suggest that the *average busy season audit* is conducted in a perceived state of deteriorating audit quality and in a workload environment in which respondents typically would not classify themselves as “better auditors.”⁵

In Panel C of Table 2 we present summary responses related to the reporting of time and perceived reward systems that may be in place at public accounting firms. Panel C shows that respondents are between “somewhat unlikely” and “neutral” regarding the likelihood that they will underreport the time they have worked on an audit engagement. Similarly, respondents are between “somewhat disagree” and “neutral” regarding the likelihood that underreporting time on an engagement results in a better performance evaluation for that engagement. As such, these data do not suggest that significant incentives for underreporting exist at public accounting firms. In the final two questions presented in Panel C, respondents indicate that they are rewarded approximately equally for audit efficiency and audit effectiveness, and that they are neutral on whether firms encourage taking a strong stance on audit issues.

⁵ In untabulated responses, respondents also indicated that they believe audit quality decreases slightly from the beginning of busy season to the end of busy season.

We defer further discussion of these issues to the section of the paper that includes our multivariate analysis.

Impact of Increasing Audit Workloads

“I would say my staff are completely exhausted and just trying to finish their projects. I originally was going to say [audit quality increases as audit hours increase] because I think they see the light at the end of the tunnel, but I think overall exhaustion trumps that.” [Survey respondent, manager level]

Table 3 summarizes responses related to the pros (Panel A) and cons (Panel B) of increasing audit workloads. For these questions, respondents were asked to rank their answers from most important to least important, with a lower average score revealing a higher rank across respondents. When asked about the benefits that are obtained as the number of hours worked increases, 41% of respondents identified developing stronger relationships with colleagues as being the top benefit and 28% identified increasing knowledge and expertise as being the top benefit. The mean ranks for these two responses are 2.19 and 2.49, respectively. The highest ranks related to what suffers the most with increasing audit workloads are personal relationships (2.62), personal health (2.67), and documentation of work performed (3.76). Relatively few respondents indicated a compromise in the appropriateness of audit procedures applied (5.51) or sufficiency of audit evidence gathered (5.12); however, roughly 34% of respondents (mean rank of 4.54) did name the exercise of professional skepticism as one of the top three concerns associated with higher audit workloads.

The data from Table 3 suggest a number of interesting relationships. First, the fact that 68% of auditors identified the number one negative consequence of an increasing workload as being either personal health or personal relationships suggests that the average auditor’s quality of life is not particularly high. Second, auditors perceive that as workloads increase, the main audit-related problem is documentation – not the extent or integrity of the audit work that is being performed. The fact that increasing workloads are perceived to impact auditors’ personal lives more than they are perceived to impact audit quality may simply be because personal consequences take precedence over work-related consequences. However, there can be little doubt that relationship problems and poor health will have (at

least) second-order effects on audit quality. Furthermore, roughly 28% of respondents named one of the four specific audit quality metrics (documentation, professional skepticism, sufficiency of evidence, and appropriateness of procedures) as their top choice and 34% named professional skepticism as one of their top three choices. Thus, Mr. Hanson's concern about the ability of overworked auditors to exercise "heightened skepticism" appears to be well founded.

Determinants of High Quality Audits

"I was in the [location removed] office and we had over 100 public clients and not enough staff to appropriately support the volume of work at year end. We were literally just trying to get the work done. The quality suffered due to the lack of resources. That office has always been that way and continues to be that way given the volume of public clients and the firm's inability to keep good people there." [Survey respondent, senior manager level]

Table 4 presents responses related to the perceived determinants of audit quality. With these questions, respondents were asked to identify the biggest contributors and biggest impediments to the delivery of a high quality audit. Panel A shows that two of the top three contributors to audit quality are related to staffing. Specifically, 53% of respondents named either appropriate staffing (i.e. proper expertise and experience) or adequate staffing (i.e., the right amount of staff) as being the top contributor to a high quality audit. Twenty-five percent of respondents said that the most important contributor to a high quality audit is timely client assistance. Average ranks for appropriate staffing, adequate staffing, and timely client assistance are 2.38, 2.89, and 2.80, respectively. By comparison, the average ranks for having an engaged audit committee or timely partner / manager assistance are 5.68 and 4.18, respectively, with fewer than 6% of respondents naming either of these factors as being the top contributor to a high quality audit.⁶ Overall, this section of the survey reveals that respondents believe having experienced, adequately staffed audit teams and helpful clients is far more important to the delivery of a quality audit than having ready access to supervisors or active audit committees. We find these results to be rather interesting, given the importance assigned to audit committees by archival accounting researchers.

⁶ The rank assigned to the audit committee's contribution to audit quality was relatively constant across the sample. Specifically, an engaged audit committee was given a rank of 5.61 by partners and senior managers, 5.67 by managers, 5.77 by seniors, and 5.59 by staff.

Panel B of Table 4 shows that two of the primary impediments to the delivery of a high quality audit are related to staffing. Specifically, understaffing and staff turnover have mean ranks of 3.34 and 4.06, with approximately 58% and 45% of respondents, respectively, including these two factors in their top three choices. Deadline constraints and workload fatigue are important as well. Deadline constraints (workload fatigue) have a mean rank of 3.83 (4.19), and 47% (42%) of respondents name these issues in their top three choices. What we find to be most telling about Panel B is that the two staffing concern ranks are higher than the ranks associated with budget constraints (4.80), lack of technical expertise (5.80), unavailability of client resources (4.48), and unavailability of partner / manager assistance (5.66). In summary, the collective message from Panels A and B of Table 4 seems to be that auditors do not believe that audit quality is influenced primarily by resource or technical constraints. Rather, delivery of a high quality audit depends critically on the composition and continuity of audit teams.

Morale and Job Satisfaction

“People are overworked, burnt out, short on sleep, sick, and just downright unhappy with their jobs.” [Survey respondent, senior level]

“Morale by the end of busy season is so low and you have some people experiencing fatigue/exhaustion. There is no way they are performing the same as someone who is well-rested and has an overall ‘happy’ morale.” [Survey respondent, senior level]

In his address to the Auditing Section at the 2014 American Accounting Association Annual Meeting, Stephen Howe – Ernst & Young’s Americas Managing Partner and Managing Partner of the U.S. Firm – stated that it is critical for the auditing profession to attract and retain “talent.” He also indicated that auditors need to understand and embrace the importance of their role in the capital markets and to “be excited” about what they are doing. In Table 5, we summarize our respondents’ attitudes about the profession in terms of both job satisfaction and their excitement about auditing as a career. Our initial focus is univariate, but we include multivariate tests in Section 6.

Our first question in Panel A simply asks respondents to rate their level of public accounting job satisfaction on a scale from 1 (lowest) to 10 (highest). The mean response is 5.46 with a median of 6, indicating an indifferent to slightly moderate level of job satisfaction. The remaining three questions in

Panel A look at job satisfaction from a slightly different angle. With these questions, we ask respondents to indicate their “level of excitement” about a career in public accounting at three different points in time – when they first started their internships, when they first started full time employment, and at the survey completion date. These questions use a seven-point scale with responses ranging from 1 (very unexcited) to 7 (very excited).⁷ Although we expected the ranks for these responses to decrease over time, as they naturally would for most people in most positions, we were surprised at the extent of the decrease. The median rank associated with the first day of the internship was 7, which is the highest point on the scale. This rank decreased to a median of 6 as of the first day of full-time employment in public accounting with a further decrease to 2 on the survey completion date. These data indicate that the typical auditor transitions from “very excited” to “excited” to “unexcited” across his or her career in public accounting. As we discuss later in the paper, this trend is consistent across all ranks. In untabulated analysis, we also find that 93% of people note a decrease in this ranking during their careers, with 4% reporting no change in rank and 3% reporting a higher rank later in their careers. Given Mr. Howe’s statements regarding the importance of “excited” auditors and cross-disciplinary evidence that employees who are happy and engaged work harder and more productively (McKee 2014), we view these trends as rather concerning.

Panels B and C of Table 5 summarize the responses related to determinants of morale. The three most important contributors to morale are valuable relationships with colleagues (2.72), flexible work arrangements (3.41), and adequate financial compensation (3.90). Challenging work assignments are viewed as being almost as important (4.03) as financial compensation, which is consistent with many complaints we have heard regarding the tedious nature of much audit work. The three most important impediments to morale are workload fatigue (1.85), inadequate financial compensation (2.89), and staff turnover (3.37). Fifty-five percent of respondents named workload fatigue as their top choice and 89% named workload fatigue as one of their top three choices. These numbers – which are the highest, by far, for any response across all of our tables – have important implications for audit quality as well.

⁷ Scale specifics are as follows: 1=very unexcited, 2=unexcited, 3=somewhat unexcited, 4=indifferent, 5=somewhat excited, 6=excited, 7=very excited.

Specifically, the job burnout that is shown by Sweeney and Summers (2002) to be associated with workload fatigue has been linked to higher employee turnover, increased absenteeism, and decreased job performance (Fogarty et al. 2000, Jackson et al. 1986; Maslach and Jackson 1981, 1986; Maslach and Leiter 1997; Shirom 1989).

5. Responses by auditor rank, audit firm size, and auditor status

Auditor Rank

*“Experience makes quality better.” [Survey respondent, **partner** level]*

*“Quality increases towards the end of busy season because people tend to work better right at the deadline, which is strange. If the work habits were the same earlier in the year or earlier in busy season, we may not need to work such extreme hours around our filing deadlines.” [Survey respondent, **senior manager** level]*

*“I think [audit quality increases] slightly [during busy season] due to efficiencies gained and the team working better together. As you progress during busy season, you are able to see how staff are performing and able to change your coaching technique if necessary for that individual. However, I see this on a team where we work more stable hours per week (55-60) during busy season rather than working on a public filing team where they can start working 70+ hours as they approach the end of February.” [Survey respondent, **manager** level]*

*“Exhaustion plays a major factor in decrease in quality. Lack of staff makes people jaded and [makes them not care] about what they're doing.” [Survey respondent, **senior** level]*

*“People stop [caring] about quality; all they want is to finish their sections and leave.” [Survey respondent, **staff** level]*

In Tables 6 and 7 we partition responses from Tables 2-5 according to the rank of the respondent. We combine the ranks of partner and senior manager such that our partitions include a maximum of 51 responses from partners and senior managers (P/SrMgr), 105 responses from managers (Mgr), 354 responses from seniors (Sr) and 266 responses from staff (Staff).⁸ Rather than detailing line-by-line data, our discussions across both tables will emphasize what we view to be the most interesting similarities and differences across the partitions.

⁸ Our Staff category includes 238 staff / associates and 28 interns. The 28 interns are not included in the analysis presented in Panel A of Table 5 or Panel B of Tables 7, 9, and 11 because interns have not yet begun full-time employment in public accounting. Across all tables, our results are not sensitive to the inclusion or exclusion of interns.

Table 6 shows that seniors and managers work more hours (average=65-66, maximum=80-81) than other ranks during busy season and that partners and senior managers work fewer hours (average=62, maximum=76). However, all levels have a similar number of minimum billable hours (54 hours). With respect to workloads and audit quality, a greater proportion of staff (45%) believe that they are better auditors when they work less than the mandated hours, relative to other ranks (seniors – 34%; managers – 33%; partners and senior managers – 37%). Staff also believe that audit quality deteriorates more quickly than other ranks (59 hours versus 60-62 hours). Partners and senior managers are more likely to believe that audit quality is not impacted by the number of hours worked (34% versus roughly 29% for other ranks), but even at this level, two out of three partners and senior managers do believe that a negative relationship exists between hours worked and audit quality.

Overall, the results from Panels A and B suggest that mid-level auditors have the highest workloads and staff have the strongest feelings regarding the extent to which workloads impact audit quality. Despite the observed differences in responses to various questions across ranks, however, the proportion of respondents who believe that workloads do not impact audit quality or that they are better when they work *more than* the mandated number of hours is remarkably consistent – 34% for partners and senior managers, 32% for managers, 36% for seniors, and 35% for staff. Thus, there does appear to be a relatively strong perceived negative relationship between audit workloads and audit quality for all auditor ranks.

Panel C of Table 6 reveals that staff and seniors are more likely than partners or managers to underreport time on an engagement and are also more likely to believe that underreporting will result in a better performance evaluation. However, the mean scores for these categories are below the midpoint of the seven-point scale, indicating that this area probably should not be of particular concern to accounting firms. Staff and seniors seem to believe that they are primarily rewarded for audit efficiency (rather than effectiveness) to a greater extent than higher-ranking auditors, but the mean responses across all ranks lie between “somewhat disagree” and “neutral.” Staff and seniors also do not feel that they are rewarded for taking a strong stance on audit issues to as great of an extent as managers, senior managers, and partners.

Again, however, even the strongest stance on this question (that taken by partners and senior managers) only scored an average of 4.88, which is between “neutral” and “somewhat agree.” Our takeaway from Panel C of Table 6 is that firms tend to reward auditors approximately equally for audit efficiency and audit effectiveness and that firms may marginally value auditors who take a strong stance on audit issues, particularly when those auditors are at the level of partner or senior manager.

In Table 7, we present responses by rank to our questions involving workload, audit quality, and morale. For each category in Panel A, we include the top three average responses across all ranks, as presented in Tables 3, 4, and 5. We then present additional rows for cases in which potentially important differences were documented across ranks. For example, the top three contributors to audit quality as initially documented in Table 4 relate to appropriate staffing, timely client information, and adequate staffing. In Panel A of Table 7, we present the percentage of respondents, by rank, reporting these three contributors as their top choice as well as an additional factor – adequate time – that highlights a notable difference between ranks that was not one of the top three average contributors. As with Table 6, our discussion of the data presented in Table 7 focuses primarily on differences between ranks.

Table 7 shows that seniors and staff are more likely to cite developing relationships with colleagues as the primary benefit to an increasing workload (42-43% versus 36-39% for other ranks). Managers are more likely to suffer an impact to personal relationships with increasing workloads while partners and senior managers are less likely to suffer such an impact (41% versus 25%, respectively). For partners and senior managers, the primary detriment to an increasing workload is documentation of work performed (29% versus less than 12-19% for other ranks). Our assessment is that partners and senior managers likely are referring to the compromised documentation of staff, seniors, and managers, as partners and senior managers have to review such documentation to make high level decisions.

Regarding contributors to audit quality, partners and senior managers view timely client assistance as being most important (33% versus 23-26% for other ranks) and place much less importance on adequate staffing (10% versus 16-21% for other ranks) and adequate time (8% versus 16-18% for other ranks). Although all ranks view understaffing as being an important impediment to audit quality

(probably due to its relationship with workload), partners and senior managers place greater weight on the lack of availability of client resources than do other ranks and less weight on budget constraints, workload fatigue, and staff turnover. Overall, these findings are generally consistent with partners and senior managers facing higher-level demands and potentially not being completely aware of the full extent of the staffing and workload issues that impact staff, seniors, and managers.

The last two categories in Panel A of Table 7 relate to morale. All ranks view valuable relationships with other colleagues as being the primary contributor to morale. This finding is consistent with prior research documenting that greater perceived social support from co-workers and supervisors is associated with lower levels of burnout (Constable and Russell 1986; Jackson et al., 1987). The second and third contributors to morale for partners and senior managers, however, involve challenging work assignments and the development of valuable relationships with clients, whereas all other ranks favor flexible work arrangements and adequate financial compensation. The most striking difference in this area involves valuable client relationships, with 18% of partners and senior managers naming this factor as the top contributor to morale, as compared to between 3% and 5% of managers, seniors, and staff. Similar to our findings related to contributors to morale, staff and managers are more likely than other ranks to view inadequate financial compensation as being a top impediment to morale, while partners and senior managers view task monotony as a major impediment. Overall, there appears to be a significant (albeit sensible) divide between what is valued by auditors who are more seasoned and likely have more direct relationships with clients and what is valued by auditors who are relatively new to the profession. However, all ranks name workload fatigue as being the primary impediment (by far) to morale, with responses ranging from 50 – 60%.

In Panel B of Table 7 we present responses, by rank, to questions involving attitudes about the auditing profession. Job satisfaction is lowest for staff and seniors (4.57 and 5.56, respectively, on a 10-point scale) and highest for managers and partners / senior managers (6.73 and 6.90, respectively). Similar trends are observed for respondents' level of excitement about public accounting as a career, with increasing divergence occurring beyond the internship date. Specifically, the mean level of excitement

about a career in public accounting as of the internship date ranges, on a 7-point Likert scale, from 6.34 for staff to 6.75 for partners and senior managers. By the first day of employment, the average response for staff decreases to 5.05 and the average response for partners and senior managers decreases to 6.08. As of the survey completion date, the average responses for the four categories are as follows: staff – 2.65; seniors – 2.73; managers – 3.64; partners and senior managers – 4.10. At these levels, partners and senior managers have transitioned from being “very excited” to “indifferent” across the span of their careers.

The fact that auditors classify themselves, on average, as being “indifferent” to public accounting does not give us a great deal of confidence about the profession’s ability to attract and retain highly motivated employees who can provide high quality financial statement audits. Even more striking, seniors and staff have transitioned from being between “very excited” and “excited” to being between “somewhat unexcited” and “unexcited” in the relatively short period of time that they have worked in public accounting. These findings are generally consistent with research suggesting that promotion may be associated with fewer burnout symptoms and that more experienced employees have lower levels of burnout because they have successfully shifted their expectations to conform to the reality of the work environment (Anderson and Iwanicki 1984; Stevens and O’Neill 1983; Maslach 1982). However, the main takeaway from this analysis is that public accounting as a career loses tremendous favor across all ranks as the post-internship demands of the job set in.

Audit Firm Size

*“Physically tired, emotionally worn, mentally exhausted. You care less about issues that you can document away, let things slide, double check less, and professional skepticism decreases because it means less work if you are less skeptical.” [Survey respondent, **Big 4 firm**, senior level]*

*“I think we actually become better auditors over the course of busy season. Although the hours wear on you after a while, the experience that you gain as you are performing procedures helps you to identify things later in busy season that you may not have seen earlier. When you are engrossed in audit quality for three to four months, that’s all you begin to think about.” [Survey respondent, **Mid-tier firm**, manager level]*

*“It is a combination of burn-out and a change of focus from effectiveness to efficiency. Getting less sleep, while working much longer hours with higher stress levels takes its toll on mind and body. As required hours wind down, staff auditors tend to want to get their work ‘done’ so they can go home at a decent hour and lose focus on the quality of their work.” [Survey respondent, **Small audit firm**, senior level]*

We commonly hear current and former students saying that mid-tier and smaller audit firms have a “better work-life balance” than Big 4 firms, meaning that hours tend to be lower and work arrangements tend to be more flexible at smaller firms. In Tables 8 and 9 we investigate the extent to which survey responses differ across three categories of audit firms. Table 8 shows that auditors at Big 4 and mid-tier firms work more hours during busy season (66 and 64, respectively) than auditors at smaller firms (56). In fact, the *maximum* hours worked for auditors at smaller audit firms are approximately the same as the *average* hours worked for Big 4 and mid-tier auditors. As a result of this relationship, we presume, auditors at smaller firms are more likely to believe that the quality of audit work is not impacted by the number of hours worked (38%) relative to mid-tier (32%) and Big 4 (29%) auditors.⁹ The only noteworthy differences with respect to reporting of time and perceived rewards are that auditors at mid-tier firms are less likely to believe that underreporting time results in a better performance evaluation while auditors at smaller firms are more likely to agree that their firms reward taking a strong stance on audit issues. As with our earlier analysis in this area, however, we note that average responses occur in a very tight range around the midpoint of the Likert scale.

In Table 9, we again include the top three average responses in each category by audit firm size, as originally presented in Tables 3, 4, and 5. We then present additional rows for cases in which potentially important differences were documented across audit firm classes. Table 9 shows that as a result of increasing workloads, auditors across all three firm size classes report relationship and health problems as their primary concern. Regarding audit quality, auditors at smaller firms are less concerned about workload fatigue but are much more worried about budget constraints. The top concern for auditors at smaller firms and mid-tier firms is the availability of client resources (27% for smaller firms, 23% for

⁹ Although the audit quality workload threshold is lower for auditors at smaller firms (56 hours versus 60 hours for Big 4 auditors and 64 hours for mid-tier auditors), the average hours worked by small firm auditors still exceeds their threshold.

mid-tier firms, and only 11% for Big 4 firms), while Big 4 auditors consistently are more concerned about issues related to staffing.

The responses related to morale provide at least some evidence that work-life balance issues are, in fact, important to auditors at mid-tier and smaller firms. For example, the most important contributor to morale for auditors at smaller firms is flexible work arrangements, and the second most important contributor to morale (behind building valuable relationships with colleagues) at mid-tier firms is having the workload spread evenly throughout the year. Across all firms, the top impediment to morale is workload fatigue, but the weight for Big 4 auditors (57%) is much higher than it is for mid-tier (41%) and smaller (40%) auditors. Finally, Panel B of Table 9 shows that job satisfaction is roughly a full point higher at smaller audit firms than it is at mid-tier and Big 4 firms. What is most interesting to us is that the level of excitement about public accounting across audit firm types is approximately the same at both the internship date and the start date (ranging between 5 and 6 for all firm types). Between the start date and the survey date, however, these levels decrease to 3.83, 3.17 and 2.83 for smaller audit firms, mid-tier firms, and Big 4 firms, respectively.

Current versus Former Auditors

*“We get burned out and tired. It's exhausting to sit in a room for 14 hours day, 6 days a week. And doing that for 12 weeks in a row just takes a toll mentally and physically on everybody. So although the people I work with are phenomenal and super smart, it's exhausting and when you reach the point of ‘just wanting to be done’ - the quality of the work decreases slightly because priorities have changed.” [Survey Respondent, **current auditor**, staff level]*

*“By the end of a busy season people no longer care for the work they are doing. At a point in time after not seeing family for months on end and losing any and all ability to enjoy any type of lifestyle outside of working all day and night the individual loses all motivation for why they are doing what they are doing. Moreover, many times an auditor will work tireless hours and find a problem just to have the manager or partner ‘make it go away.’ Towards the end of busy season there are no incentives that make the amount and type of work worth it.” [Survey respondent, **former auditor**, senior level]*

Our next set of univariate analyses partitions responses based on whether the survey respondent is *currently* employed as an auditor with a public accounting firm (current auditor) or was *previously* employed as an auditor with a public accounting firm (former auditor). Our sample contains 299 current

auditors and 477 former auditors. The 477 former auditors include respondents who previously worked in the audit and assurance division of a public accounting firm but transferred to another function within a public accounting firm and respondents who previously worked in the audit and assurance division of a public accounting firm and have left public accounting altogether.¹⁰ Two hundred forty-eight (83%) of the 299 current auditors are with Big 4 firms, with 19 (6%) and 32 (11%) coming from mid-tier and smaller firms, respectively. Of the 477 former auditors, 427 (89%) left auditing when they were with a Big 4 firm, with 22 (5%) and 28 (6%) leaving when they were with a mid-tier or smaller firm, respectively.

Table 10 presents responses to questions related to audit workloads, reporting of time, and perceived rewards for current versus former auditors. Most of the responses across categories are similar. For example, current auditors report working an average of approximately 63 hours during the previous busy season and former auditors report working an average of approximately 66 hours during their last auditing busy season. Both groups state that audit quality begins to deteriorate when audit workloads are around 60 hours. Former auditors are more likely than current auditors to believe that underreporting of time is more likely to result in a favorable evaluation, but as in the previous tables the average response is very near the midpoint of the range.

As with Tables 7 and 9, for each category in Panel A of Table 11, we include the top three average responses for current and former auditors, as initially presented in Tables 3, 4, and 5. We then present additional rows for cases in which potentially important differences were documented across ranks. Panel A of Table 11 shows that former auditors are less likely than current auditors to believe that knowledge and expertise increase with an increasing workload (24% versus 35%). Seventy-one percent of former auditors cite significant concerns with personal relationships and personal health, as compared to 64% for current auditors. Regarding audit quality, having proper staff is important to both groups, with current auditors valuing the right amount of staff more highly (24% versus 16%) and former auditors valuing appropriately experienced staff more highly (35% versus 32%). Former auditors are more likely

¹⁰ Our survey does not allow us to identify how many respondents are in each of these two categories. However, all 477 of these respondents do have audit experience within public accounting firms.

to cite workload fatigue as a top impediment to audit quality (13% versus 8%), while budget constraints (18% versus 13%) and understaffing (23% versus 19%) are viewed as being bigger problems for current auditors. These results are intuitively appealing, given that current auditors, by definition, are still having to deal with budget constraints and understaffing (along with workload fatigue), while the former conditions may not be as “memorable” to former auditors as having worked 80-hour weeks.

Both current and former auditors indicate that the top contributor to morale is the ability to build valuable relationships with other colleagues. Other morale-based responses are similar as well, although former auditors are more likely than current auditors to cite workload fatigue as being the top impediment to morale (58% versus 50%) and are less likely than current auditors to identify flexible work arrangements as a top contributor to morale (15% versus 30%). What we find most interesting about Table 11 is the trend in auditors’ views about public accounting as a career. Although the current level of excitement about public accounting naturally is much lower for respondents who no longer work as auditors, (2.40) than for current auditors (3.72), these two groups shared similar views at both the internship date (former – 6.50; current – 6.33) and the start date (former – 5.55; current – 5.36). Thus, biases in our results due to self-selection into these categories does not appear to exist. Auditors who ultimately choose to seek non-audit employment opportunities were not more inclined to view the profession with disfavor at the beginning of their careers.

6. Additional Analysis

In this section we present two sets of tests. First, we estimate logistic models to evaluate which factors contribute significantly to respondents’ current attitudes about employment in public accounting. We then conduct one-way analysis of variance (ANOVA) tests or independent sample t-tests for the variables included in our multivariate models to identify statistical differences that exist according to auditor rank, audit firm size, and current versus former auditor status. As such, our statistical tests formalize many of the relationships initially explored in Section 5, with a focus on factors used in our multivariate tests that relate to auditors’ attitudes about public accounting.

Multivariate Analysis

In our multivariate tests, we estimate logistic models where the dependent variable is, alternatively, job satisfaction (*SATIS*; 1=lowest to 10=highest), current level of excitement about public accounting as a career (*EXCITE*; 1=very unexcited to 7=very excited), and increase in excitement about public accounting from the internship date to the survey date.¹¹ For the latter measure, we use a binary variable (*INCR_EXCITE*) that identifies respondents who have a change in excitement from their internship date to the survey date that is greater than the median change across all respondents. Given that 93% of respondents document a decrease in excitement between these two dates, the *INCR_EXCITE* measure essentially identifies respondents whose opinion of public accounting has decreased less than the median decrease. We choose this specification so that the directional predictions for our independent variables are the same across all three models.

Our first two independent variables include average hours worked during busy season (*AVGHOURS*) and the ratio of average hours worked during busy season to the respondent's opinion of the number of hours at which audit quality begins to decrease (*AVG_SUFFERS*). Although the pairwise correlation between these variables is high ($\rho=0.502$), the measures proxy for distinct effects related to workloads in general and to how much audit quality may potentially suffer at average busy season workloads. Because people typically prefer working less to working more we expect job satisfaction and excitement about the profession to be negatively related to average hours worked. However, if audit quality is important to auditors, then working significantly beyond the level at which audit quality is perceived to decrease (i.e., the audit quality workload threshold) should negatively impact auditors' views about the profession as well. Stated differently, a negative coefficient for *AVG_SUFFERS* would suggest that auditors are less happy with their jobs the more they believe that workloads inhibit their ability to deliver a high quality audit.

Our next three independent variables have ranks ranging from 1 to 7. Specifically, we include ranks for whether the respondent perceives that (1) the audit firm rewards auditors for efficiency or

¹¹ We estimate an ordered logistic model for *SATIS* and *EXCITE* and a binary logistic model for *DECR_EXCITE*.

effectiveness (*EFF*; 1=efficiency to 7=effectiveness), (2) the audit firm rewards auditors for taking a strong stance on audit issues (*STANCE*; 1=strongly disagree to 7=strongly agree), and (3) the under-reporting of time results in a more favorable evaluation (*UNDER*; 1=strongly disagree to 7=strongly agree). Finally, we control for auditor rank (*AUDRANK*; 1=senior manager/partner, 2=manager, 3=senior, 4=staff), audit firm (*FIRM*; 1=Big 4, 2=mid-tier, 3=smaller audit firm), and current versus former auditor status (*FORMER*; 0=current auditor, 1=former auditor). We use these three control variables as partitions in the ANOVA and t-tests that follow our multivariate analysis.

Table 12 presents the results associated with our multivariate logistic models. The coefficient for average audit workload (*AVGHOURS*) is negative and significant (p-values from 0.052 to 0.077) when *AVG_SUFFERS* is not included in the model, indicating that as average workloads increase, job satisfaction and excitement about public accounting generally decrease.¹² When *AVG_SUFFERS* is included in the model, however, *AVGHOURS* loses its statistical significance. The significant (p<0.01) negative coefficient for *AVG_SUFFERS* suggests that job satisfaction and excitement about public accounting decrease as the spread between average workloads and the audit quality workload threshold increases.¹³ Our conclusion is that auditors are particularly discouraged when they believe that the demands placed on them during busy season make it difficult to deliver a high quality audit. The significant coefficients for *EFF* and *STANCE* corroborate this notion. Specifically, the positive coefficients for both of these measures suggest that the more likely respondents believe that they are rewarded primarily for effectiveness (rather than efficiency) and that their firm values taking a strong stance on audit issues (even if it means potentially losing the client), the higher their job satisfaction and the greater their excitement about public accounting as a career. We are encouraged by these findings, as

¹²Although the odds ratios for *AVGHOURS* across the three models are very close to one, each increment in *AVGHOURS* is one hour. As such, in the first *SATIS* model, respondents with a 10-hour greater average workload would be 14% less likely $[(1-0.986)*10]$ to have, for example, above-median job satisfaction.

¹³As an alternative specification, we divided *AVG_SUFFERS* into deciles. With this specification, the odds ratio for *AVG_SUFFERS* in the second *SATIS* model is 0.85, indicating that a 10% increase in *AVG_SUFFERS* would result in a 15% average decrease in job satisfaction.

they seem to suggest that “tone at the top” impacts auditors’ attitudes and may facilitate the delivery of higher quality audits.

Our final three independent variables are related to auditor rank, audit firm, and current versus former auditor status. In Table 12, the significant negative coefficients and odds ratios for *AUDRANK* are consistent with the univariate relationships documented in Panel B of Table 7. In our ordered logit setting, the odds ratio compares respondents who are in category $>N$ with those who are in category $\leq N$. For example, holding all other variables equal, the odds ratio for *AUDRANK* in the second *SATIS* model indicates that audit staff report job satisfaction levels that are only 47.2% as high ($1 - 0.528$) as the average job satisfaction levels of all other ranks.¹⁴ The coefficients for *AUDRANK* are negative and significant in the *EXCITE* and *INCR_EXCITE* models as well, with odds ratios ranging from 0.600 to 0.691. The odds ratio of 1.258 for *FIRM* in the second *SATIS* model reveals that small firm auditors and middle-market auditors are 25.8% more satisfied with their jobs than Big 4 auditors.¹⁵ However, the most prominent differences related to levels of excitement about public accounting are observed between current and former auditors. The odds ratios for *FORMER* in these models suggest that excitement scores for former auditors are approximately 73% lower ($1 - 0.276$) than they are for current auditors and that former auditors are approximately 77% less likely ($1 - 0.234$) to have experienced an increase in excitement from their internship date to the survey date. Overall, Table 12 identifies a number of significant and intuitively appealing multivariate determinants of both job satisfaction and respondents’ views about public accounting as a career.

Univariate Analysis

Table 13 presents one-way ANOVA and independent sample t-test results for the variables used in our multivariate models with auditor rank, audit firm size, and current versus former auditor status used as partitions. As such, this table analyzes statistically many of the relationships that were explored initially

¹⁴ The same odds ratio also would apply, as another example, to a comparison of audit staff, seniors, and managers relative to senior managers and partners.

¹⁵ Similarly, small firm auditors are 25.8% more satisfied with their jobs than the average of mid-tier and Big 4 auditors.

in Tables 6-11. Table 13 shows that job satisfaction is significantly lower for staff auditors relative to all other ranks and for seniors relative to managers and partners / senior managers. Inferences related to excitement about public accounting as a career are comparable, except that the level of non-excitement for seniors and staff auditors is similar (and both are significantly lower than for managers and partners / senior managers). Finally, managers and partners / senior managers are significantly more likely to believe that their firms reward taking a strong stance on audit issues than are seniors and staff auditors.

With respect to audit firm size, the primary significant differences are observed between Big 4 firms and small audit firms. Auditors at Big 4 firms have significantly lower levels of job satisfaction and excitement about public accounting as a career, work more hours on average, and also are more likely to have workloads beyond the point at which they believe audit quality begins to decrease (i.e., the audit quality workload threshold). Mid-tier firms tend to score between the two extremes. Overall, these results are consistent with the general perception that smaller audit firms provide a better work-life balance than larger audit firms.

Our final analysis uses independent sample t-tests to compare responses of current auditors with those of former auditors. Every measure presented in Table 13 is significantly different across these two partitions. When they were auditors, former auditors were less satisfied with their jobs, were less excited about public accounting as a career, and worked more hours on average (and more hours above the audit quality workload threshold). Former auditors also believe that they were less likely to be rewarded for effectiveness relative to efficiency, less likely to be rewarded for taking a strong stance on audit issues, and more likely to believe that underreporting time on an engagement would result in a favorable performance evaluation. One explanation for these findings is that former auditors are no longer current auditors precisely because of these differences. Another explanation is that former auditors are jaded and, in hindsight, overestimate the negative aspects of their auditing careers. It is impossible to know which of these two explanations is likely to dominate. However, it is interesting to note that many of the former auditor measures lie between the mean values for staff and senior, which is the point at which many auditors choose to leave the profession.

7. Summary

The purpose of our study is to obtain perspectives from a large sample of practicing auditors at all levels about current audit workloads, the relationship between audit workloads and audit quality, and attitudes about the auditing profession. Our study is motivated by 20 years of discussions with audit practitioners as well as by recent heightened regulatory concern related to audit workloads and audit quality. We hope that our findings will inform efforts by the PCAOB and the CAQ to identify and productively implement important Audit Quality Indicators (AQIs). We also hope that accounting firms will be able to use the findings of our study to improve working conditions and retain audit talent.

Our study uses a survey instrument to solicit responses from over 700 current and former auditors. The survey includes a variety of questions related to audit workloads, perceived rewards for effective auditing, perceived determinants of audit quality, job satisfaction, and morale. Our questions frame many of the issues from both positive and negative perspectives. For example, we ask respondents to identify the biggest contributors and biggest impediments to audit quality and auditor morale. We also ask respondents what benefits are obtained from increasing audit workloads in addition to asking which factors suffer the most when audit workloads increase. Finally, we partition responses by auditor rank, audit firm size (Big 4, mid-tier, and smaller), and current versus former auditor status to identify differences that exist across these categories.

Our results indicate that the demands placed on auditors are very high at every level (e.g., staff, senior, manager, partner) and at every type of audit firm (Big 4, mid-tier, and small audit firms), with workloads significantly exceeding what respondents perceive to be the audit quality workload threshold. We also find that auditors at all levels and at all types of audit firms are much more negative about the profession today than they were at the beginning of their careers, largely due to the presence of excessive workloads. On the positive side, auditors are significantly less pessimistic when they believe that their firm supports taking a strong stance on audit issues and values audit effectiveness rather than audit efficiency. Overall, our findings provide support for the PCAOB's concern that excessive workloads could be a root cause of audit deficiencies. We hope our study will encourage dialogue among

practitioners, audit committees, and regulators about exploring mechanisms that can enhance audit quality and make the auditing profession more sustainable and attractive to current and prospective employees.

Appendix 1 Variable Definitions

<i>Variable Name</i>	<i>Definition</i>
<i>SATIS</i>	Job satisfaction (1=lowest, 10=highest)
<i>EXCITE</i>	Excitement about public accounting as a career at survey date (1=very unexcited, 4=indifferent, 7=very excited)
<i>INCR_EXCITE</i>	Increase in excitement from internship to survey date (1=above median change, 0=at or below median change)
<i>AVGHOURS</i>	Average hours worked during busy season
<i>AVG_SUFFERS</i>	Average hours worked during busy season / Hours at which respondent perceives audit quality begins to suffer
<i>EFF</i>	Primarily rewarded for audit efficiency or audit effectiveness (1=efficiency, 4=both equally, 7=effectiveness)
<i>STANCE</i>	Firm rewards taking a strong stance on audit issues, even if taking such a stance means that client retention is jeopardized (1=strongly disagree, 4=neutral, 7=strongly agree)
<i>UNDER</i>	Under-reporting time on an engagement results in a more favorable performance evaluation for that engagement (1=strongly disagree, 4=neutral, 7=strongly agree)
<i>AUDRANK</i>	Auditor rank (1=senior manager/partner, 2=manager, 3=senior, 4=staff)
<i>FIRM</i>	Audit firm (1=Big 4, 2=mid-tier, 3=smaller audit firm)
<i>FORMER</i>	Former versus current auditor (1=former auditor, 0=current auditor)

REFERENCES

- Agoglia, C.P., J.F. Brazel, R.C. Hatfield, and S.B. Jackson. 2010. How do audit workpaper reviewers cope with the conflicting pressures of detecting misstatements and balancing client workloads? *Auditing: A Journal of Practice & Theory* 29 (2): 27-43.
- Almer, E.D., and S.E. Kaplan. 2002. The effects of flexible work arrangements on stressors, burnout, and behavioral job outcomes in public accounting. *Behavioral Research in Accounting* 14: 1-34.
- Anderson, M.B.G., and E.F. Iwanicki. 1984. Teacher motivation and its relationship to burnout. *Education Administration Quarterly* 20: 109-132.
- Center For Audit Quality (CAQ). 2014. CAQ approach to audit quality indicators. (April) Available at: <http://www.thecaq.org/docs/reports-and-publications/caq-approach-to-audit-quality-indicators-april-2014.pdf?sfvrsn=2>
- Cohen, J., G. Krishnamoorthy, and A.M. Wright. 2002. Corporate governance and the audit process. *Contemporary Accounting Research* 19 (4): 573-594.
- Cohen, J., G. Krishnamoorthy, and A. Wright. 2010. Corporate governance in the post-Sarbanes-Oxley Era: Auditors' experiences. *Contemporary Accounting Research* 27 (3): 751-786.
- Cohn, M. 2013. PCAOB's Hanson concerned about auditor hours. (May). Available at: <http://www.accountingtoday.com/news/PCAOB-Hanson-Concerned-Auditor-Hours-66603-1.html>
- Cohn, M. 2013. PCAOB plans to focus on revenue audits. (October). Available at: <http://www.accountingtoday.com/news/PCAOB-Plans-Focus-Revenue-Audits-68462-1.html>
- Cordes, C.L., and T.W. Dougherty. 1993. A review and an integration of research on job burnout. *Academy of Management Review* 18: 621-656.
- Constable, J.F., and D.W. Russell. 1986. The effect of social support and the work environment upon burnout among nurses. *Journal of Human Stress*. Spring: 20-26.
- Fogarty, T.J., J. Singh, G.K. Rhoads, and R.K. Moore. 2000. Antecedents and consequences of burnout in accounting: Beyond the role stress model. *Behavioral Research in Accounting* 12: 31-67.

- Hanson, J. Keynote address to the American Accounting Association 2013 Annual Ohio Region Meeting. (May 10, 2013). Available at: http://pcaobus.org/News/Speech/Pages/05102013_AAA.aspx
- International Auditing and Assurance Standards Board (IAASB). 2014. A Framework for audit quality: Key elements that create an environment for audit quality. (February). Available at: <https://www.ifac.org/publications-resources/framework-audit-quality-key-elements-create-environment-audit-quality>
- Jackson, S.E., R.L. Schwab, and R.S. Schuler. 1986. Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology* 71: 630 – 640.
- Jackson, S.E., J.A. Turner, and A.P. Brief. 1987. Correlates of burnout among public service lawyers. *Journal of Occupational Behavior* 8: 339-349.
- Leiter, M.P., and C. Maslach. 1988. The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior* 9: 297-308.
- Lyubomirsky, S., L. King, and E. Diener. 2006. The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin* 131 (6): 803-855.
- Maslach, C. 1982. *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice-Hall.
- Maslach, C., and S.E. Jackson. 1981. The measurement of experienced burnout. *Journal of Occupational Behavior* 2: 99-113.
- Maslach, C., and S.E. Jackson. 1986. *The Maslach Burnout Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., and M.P. Leiter. 1997. *The truth about burnout*. San Francisco, CA: Jossey-Bass Publishers.
- McKee, A. 2014. Being happy at work matters. Available at: <https://hbr.org/2014/11/being-happy-at-work-matters>.
- Public Company Accounting Oversight Board (PCAOB). 1997. *System of Quality Control for a CPA's Firm's Accounting and Auditing Practice*. Quality Control (QC) Section 20. Available at: <http://pcaobus.org/Standards/QC/Pages/QC20.aspx>

- Public Company Accounting Oversight Board (PCAOB). 2013. Standing Advisory Group Meeting: Discussion – Audit Quality Indicators. (May 15-16). Available at:
http://pcaobus.org/news/events/documents/05152013_sagmeeting/audit_quality_indicators.pdf
- Public Company Accounting Oversight Board (PCAOB). 2014. Standing Advisory Group Meeting: Initiative to improve audit quality – root cause analysis, audit quality indicators, and quality control standards. (June 24-25). Available at:
http://pcaobus.org/News/Events/Documents/0624252014_SAG_Meeting/06242014_AQI.pdf
- Rose, K. 1983. Burnout. *Journal of Accountancy* 156 (4): 22-25.
- Sanders, S. 1998. How to keep burnout from becoming one more side of busy season. *Accounting Office Management and Administration Report* 98 (1): 2-3.
- Shirom, A. 1989. Burnout in work organizations. In C.L. Cooper & L. Robertson (Eds.), *International Review of Industrial and Organizational Psychology*: 25-48. New York: Wiley.
- Stevens, G.B., and P. O'Neill. 1983. Expectations and burnout in the developmental disabilities field. *American Journal of Community Psychology* 11: 615-627.
- Sweeney, J., and S. Summers. 2002. The effect of the busy season workload on public accountants' job burnout. *Behavioral Research in Accounting* 14: 224-245.

TABLE 1
Survey Respondent Demographics

Panel A: Percentages

	<u>N[±]</u>	<u>Percent</u>
Firm Size		
Big 4	675	86.98
Mid-tier	41	5.28
Other	<u>60</u>	<u>7.73</u>
	776	100
Rank		
Partner	12	1.55
Senior Manager	39	5.03
Manager	105	13.53
Senior/In-charge	354	45.62
Staff/Associate/Intern	<u>266</u>	<u>34.28</u>
	776	100
Gender		
Female	405	52.19
Male	<u>377</u>	<u>47.81</u>
	776	100
City		
Houston	267	34.41
Austin	69	8.89
San Antonio	32	4.12
Dallas/Ft. Worth	209	26.93
New York City	32	4.12
Multiple	40	5.15
Other	<u>96</u>	<u>12.37</u>
	776	100

TABLE 1, continued
 Survey Respondent Demographics

Panel A: Percentages (continued)

	<u>N[±]</u>	<u>Percent</u>
Industry		
Energy & Mining	191	25.26
Financial Services	136	17.99
Governmental	14	1.85
Healthcare	25	3.31
Hospitality & Leisure	9	1.19
Insurance	13	1.72
Manufacturing	69	9.13
Not-for-profit	11	1.46
Power & Utilities	29	3.84
Retail & Consumer	51	6.75
Media & Telecommunications	87	11.51
Other	<u>121</u>	<u>16.01</u>
	756	100

Panel B: Experience

	<u>N[±]</u>	<u>Mean</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>
Age	747	30.36	29	21	74
Years as CPA	575	6.75	5	0	48
Years in Industry	631	3.27	2.5	0	40

[±]All responses were requested on a volunteer-basis only.

TABLE 2
Audit Workloads, Reporting of Time, and Perceived Rewards

Panel A: Audit Workloads					
	<u>N[±]</u>	<u>Mean</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>
Average hours worked during busy season	771	65.12	65	42	100
Maximum hours worked during busy season	769	79.54	80	45	120
Minimum billable hours required during busy season	502	53.96	55	40	65
% billable hours > minimum billable hours	551	73.86	90	0	100
% billable hours < minimum billable hours	542	7.95	0	0	100

Panel B: Audit Workloads and Audit Quality			
	<u>N</u>	<u>Percent</u>	
Better auditor when work mandated hours	153	27.57	
Better auditor when work < mandated hours	208	37.48	
Better auditor when work > mandated hours	32	5.77	
Quality of audit work not impacted by hours worked	<u>162</u>	<u>29.19</u>	
	555 [±]	100%	
Audit quality deteriorates beyond __ hours per week (mean / median)	699 [±]	60.29 / 60	

Panel C: Reporting of Time and Perceived Rewards			
	<u>N[±]</u>	<u>Mean</u>	<u>Median</u>
Likelihood of underreporting time (1=not at all likely; 4=neutral; 7=very likely)	773	3.61	3
Underreporting time results in a better performance evaluation (1=strongly disagree; 4=neutral; 7=strongly agree)	772	3.62	4
Primarily rewarded for audit efficiency or audit effectiveness (1=efficiency; 4=both equally; 7=effectiveness)	775	3.63	4
Firm rewards taking a strong stance on audit issues, even if it means that client retention is jeopardized (1=strongly disagree; 4=neutral; 7=strongly agree)	775	4.22	4

± All responses were requested on a volunteer-basis only.

TABLE 3
Impact of Increasing Audit Workloads

Panel A: What Benefits are Obtained?			
<u>Item</u>	<u>Mean Rank*</u>	<u>% Reporting as Top Choice[¥]</u>	<u>% Reporting in Top 3 Choices[¥]</u>
I develop stronger relationships with colleagues	2.19	40.99	81.18
My knowledge and expertise increase	2.49	28.36	78.23
I develop stronger relationships with clients	3.19	6.45	59.14
I become more efficient	3.56	11.56	43.55
Documentation is more thorough	3.84	8.60	32.12
Other	6.65	4.03	5.78

Panel B: What Suffers the Most?			
<u>Item</u>	<u>Mean Rank*</u>	<u>% Reporting as Top Choice[¥]</u>	<u>% Reporting in Top 3 Choices[¥]</u>
Personal relationships	2.62	33.78	75.66
Personal health	2.67	34.31	74.20
Documentation of work performed	3.76	14.76	48.54
Professional skepticism exercised	4.54	6.65	33.64
Sufficiency of audit evidence gathered	5.12	4.12	22.07
Appropriateness of audit procedures applied	5.51	2.39	15.69
Relationships with colleagues	5.81	1.60	18.35
Relationships with client	6.17	0.66	9.44
Other	9.72	1.73	2.39

* Lower number = higher rank

¥ Percentages based on the number of respondents who answered the question. Total responses for Panel A are 744 and total responses for Panel B are 752.

TABLE 4
Determinants of High Quality Audits

Panel A: What are the Biggest Contributors?

<u>Item</u>	<u>Mean Rank*</u>	<u>% Reporting as Top Choice[¥]</u>	<u>% Reporting in Top 3 Choices[¥]</u>
Appropriate staffing (i.e., experience and expertise)	2.38	33.65	77.88
Timely client information / assistance	2.80	24.80	64.08
Adequate staffing (i.e., the right amount)	2.89	19.30	64.88
Adequate time	3.14	16.09	59.12
Timely partner / manager assistance	4.18	4.02	27.48
Engaged audit committee	5.68	1.21	5.50
Other	7.84	0.94	1.21

Panel B: What are the Biggest Impediments?

<u>Item</u>	<u>Mean Rank*</u>	<u>% Reporting as Top Choice[¥]</u>	<u>% Reporting in Top 3 Choices[¥]</u>
Understaffing	3.34	20.62	58.23
Deadline constraints	3.83	17.40	47.12
Staff turnover	4.06	11.51	44.71
Workload fatigue / excessive hours	4.19	10.84	42.44
Resources not available from client	4.48	12.58	37.22
Budget constraints	4.80	14.99	33.87
Unavailable partner / manager assistance	5.66	2.54	17.14
Lack of technical expertise	5.80	8.17	17.40
Other	9.79	1.34	1.87

* Lower number = higher rank

¥ Percentages based on the number of respondents who answered the question. Total responses for Panel A and B are 746 and 747, respectively.

TABLE 5
Morale

Panel A: Attitude about Auditing Profession (Scale)

	<u>Mean</u>	<u>Median</u>
Level of job satisfaction from 1 (lowest) to 10 (highest)	5.46	6
Level of excitement about career in public accounting on first day of public accounting internship (1=very unexcited; 4=indifferent; 7=very excited)	6.40	7
Level of excitement about career in public accounting on first day of full-time employment in public accounting (1=very unexcited; 4=indifferent; 7=very excited)	5.44	6
Level of excitement about career in public accounting today (1=very unexcited; 4=indifferent; 7=very excited)	2.94	2

Panel B: What are the Biggest Contributors?

<u>Item</u>	<u>Mean Rank*</u>	<u>% Reporting as Top Choice[¥]</u>	<u>% Reporting in Top 3 Choices[¥]</u>
Valuable relationships with other colleagues	2.72	32.33	68.90
Flexible work arrangements (e.g., working from home)	3.41	20.96	58.08
Adequate financial compensation	3.90	17.26	45.34
Challenging work assignments	4.03	11.64	40.41
Verbal affirmations from leaders within the firm	4.39	5.48	33.29
Valuable relationships with clients	4.66	3.42	27.53
Workload evenly spread throughout the year	5.00	7.95	24.93
Other	8.83	0.96	1.51

Panel C: What are the Biggest Impediments?

<u>Item</u>	<u>Mean Rank*</u>	<u>% Reporting as Top Choice[¥]</u>	<u>% Reporting in Top 3 Choices[¥]</u>
Workload fatigue / excessive hours	1.85	54.69	89.12
Inadequate financial compensation	2.89	18.91	70.07
Staff turnover	3.37	8.30	52.65
Monotony of tasks required by audit	3.51	11.02	50.88
Other	7.66	2.45	4.76
Unavailable partner / manager assistance	4.53	2.86	20.95
Complexity of tasks required by audit	5.10	1.77	11.56

* Lower number = higher rank; mean is based upon respondents that selected this item as one of their choices.

¥ Percentages based on the number of respondents who answered the question. Total responses for Panel A are between 770 and 776, depending on the question. Total responses for Panels B and C are 730 and 735, respectively.

TABLE 6
Audit Workloads, Reporting of Time, and Perceived Rewards – By Rank

<i>Panel A: Audit Workloads (Means)</i>				
	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Average hours worked during busy season	61.90	65.22	66.37	64.03
Maximum hours worked during busy season	75.82	79.77	81.25	77.85
Minimum billable hours during busy season	53.75	53.88	54.32	53.54
% billable hours > minimum billable hours	64.63	71.62	75.85	73.75
% billable hours < minimum billable hours	12.74	7.14	7.52	8.01
<i>Panel B: Audit Workloads and Audit Quality (% and Means)</i>				
	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Better auditor when work mandated hours	28.57	34.62	30.30	20.22
Better auditor when work < mandated hours	37.17	33.33	33.71	44.94
Better auditor when work > mandated hours	0.00	3.85	6.82	6.18
Quality of audit work not impacted by hours worked	<u>34.29</u>	<u>28.21</u>	<u>29.17</u>	<u>28.65</u>
	100%	100%	100%	100%
Audit quality deteriorates beyond __ hours per week	61.91	62.30	60.19	59.40
<i>Panel C: Reporting of Time and Perceived Rewards</i>				
	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Likelihood of underreporting time (1=not at all likely; 4=neutral; 7=very likely)	3.41	3.46	3.70	3.60
Underreporting time results in a better performance evaluation (1=strongly disagree; 4=neutral; 7=strongly agree)	3.29	3.26	3.73	3.68
Primarily rewarded for audit efficiency or audit effectiveness (1=efficiency; 4=both equally; 7=effectiveness)	3.80	3.97	3.64	3.45
Firm rewards taking a strong stance on audit issues, even if it means that client retention is jeopardized (1=strongly disagree; 4=neutral; 7=strongly agree)	4.88	4.64	4.15	4.00

The maximum number of responses for the partner / senior manager (P/SrMgr) manager (Mgr), senior (Sr), and staff (Staff) categories are 51, 105, 354, and 266, respectively.

TABLE 7
Top Responses – By Rank

<i>Panel A: Top Responses</i>	% Reporting as Top Choice			
Benefits to Increasing Workload	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
I develop stronger relationships with colleagues	38.78	36.27	41.54	42.58
My knowledge and expertise increase	26.53	35.29	26.71	28.82
I develop stronger relationships with clients	4.08	8.82	5.04	7.81
Detriments to Increasing Workload	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Personal relationships	25.49	40.78	32.46	34.38
Personal health	25.49	27.18	37.13	35.16
Documentation of work performed	29.41	19.42	13.16	12.11
Contributors to Audit Quality	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Appropriate staffing (i.e., experience and expertise)	30.61	32.69	36.07	31.35
Timely client information / assistance	32.65	25.96	23.46	24.60
Adequate staffing (i.e., the right amount)	10.20	16.35	20.23	21.03
Adequate time	8.16	18.27	15.84	17.06
Impediments to Audit Quality	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Understaffing	24.49	23.30	21.64	17.39
Deadline constraints	16.33	21.36	15.79	18.18
Staff Turnover	8.16	12.62	11.11	12.83
Workload fatigue / excessive hours	6.12	4.85	11.11	12.89
Budget constraints	6.12	18.45	15.79	14.26
Resources not available from client	20.41	10.68	11.70	13.04
Contributors to Morale	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Valuable relationships with other colleagues	32.65	27.18	32.83	33.73
Flexible work arrangements	16.33	23.30	17.93	24.90
Adequate financial compensation	12.24	19.42	17.63	16.87
Challenging work assignments	24.49	15.53	11.85	7.23
Valuable relationships with client	18.37	2.91	4.56	2.81
Impediments to Morale	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Workload fatigue / excessive hours	53.06	51.46	59.76	49.60
Inadequate financial compensation	12.24	25.24	15.92	21.60
Staff turnover	8.16	10.68	7.21	8.80
Monotony of tasks required	18.37	2.91	10.51	13.60
<hr/>				
<i>Panel B: Attitude about Auditing Profession (Scale)</i>	Average Response*			
Characteristic	<u>P/SrMgr</u>	<u>Mgr</u>	<u>Sr</u>	<u>Staff</u>
Level of job satisfaction – 1 (lowest) to 10 (highest)	6.90	6.73	5.56	4.57
Level of excitement – Internship (1 to 7)	6.75	6.71	6.36	6.34
Level of excitement – 1 st day of employment (1 to 7)	6.08	5.95	5.53	5.05
Level of excitement – Today (1 to 7)	4.10	3.64	2.73	2.65

*Interns excluded

The maximum number of responses for the partner / senior manager (P/SrMgr) manager (Mgr), senior (Sr), and staff (Staff) categories are 51, 105, 352, and 238, respectively.

TABLE 8
 Audit Workloads, Reporting of Time, and Perceived Rewards – By Audit Firm Size

<i>Panel A: Audit Workloads (Means)</i>			
	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Average hours worked during busy season	66.01	63.54	56.19
Maximum hours worked during busy season	80.81	77.66	66.44
Minimum billable hours during busy season	53.94	55.38	52.92
% billable hours > minimum billable hours	76.36	69.45	31.77
% billable hours < minimum billable hours	7.00	12.71	20.03

<i>Panel B: Audit Workloads and Audit Quality (% and Means)</i>			
	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Better auditor when work mandated hours	27.51	29.03	26.92
Better auditor when work < mandated hours	37.95	35.48	30.77
Better auditor when work > mandated hours	6.02	3.23	3.85
Quality of audit work not impacted by hours worked	<u>28.51</u>	<u>32.26</u>	<u>38.46</u>
	100%	100%	100%
Audit quality deteriorates beyond __ hours per week	60.47	63.51	55.60

<i>Panel C: Reporting of Time and Perceived Rewards</i>			
	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Likelihood of underreporting time (1=not at all likely; 4=neutral; 7=very likely)	3.66	3.15	3.42
Underreporting time results in a better performance evaluation (1=strongly disagree; 4=neutral; 7=strongly agree)	3.62	3.32	3.78
Primarily rewarded for audit efficiency or audit effectiveness (1=efficiency; 4=both equally; 7=effectiveness)	3.62	3.78	3.70
Firm rewards taking a strong stance on audit issues, even if it means that client retention is jeopardized (1=strongly disagree; 4=neutral; 7=strongly agree)	4.19	4.15	4.55

The maximum number of responses for the Big 4, Mid-Tier, and Other categories are 675, 41, and 60, respectively.

TABLE 9
Top Responses – By Audit Firm Size

<i>Panel A: Top Responses</i>	% Reporting as Top Choice		
	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Benefits to Increasing Workload			
I develop stronger relationships with colleagues	41.38	47.50	31.48
My knowledge and expertise increase	28.31	35.00	24.07
I develop stronger relationships with clients	6.31	5.00	9.26
Documentation is more thorough	8.05	5.00	18.52
Detriments to Increasing Workload	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Personal relationships	33.49	32.50	37.93
Personal health	34.56	37.50	29.31
Documentation of work performed	14.53	12.50	18.97
Contributors to Audit Quality	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Appropriate staffing (i.e., experience and expertise)	34.36	33.33	25.45
Timely client information / assistance	22.85	33.33	41.82
Adequate staffing (i.e., the right amount)	19.94	20.51	10.91
Impediments to Audit Quality	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Understaffing	21.59	17.95	10.91
Deadline constraints	17.61	20.51	12.73
Staff turnover	12.10	7.69	7.27
Workload Fatigue / Excessive Hours	11.04	12.82	7.27
Budget constraints	15.16	5.26	20.00
Resources not available from client	10.72	23.08	27.27
Contributors to Morale	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Valuable relationships with other colleagues	32.92	33.33	24.53
Flexible work arrangements (e.g., working from home)	20.85	12.82	28.30
Adequate financial compensation	16.46	14.26	20.51
Workload evenly spread throughout the year	7.52	17.95	5.66
Impediments to Morale	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Workload fatigue / excessive hours	56.77	41.03	39.62
Inadequate financial compensation	19.28	23.08	11.32
Staff turnover	7.78	10.26	13.21
Monotony of tasks required	9.80	17.95	20.75
<hr/>			
<i>Panel B: Attitude about Auditing Profession (Scale)</i>	Average Response*		
Characteristic	<u>Big 4</u>	<u>Mid-Tier</u>	<u>Other</u>
Level of job satisfaction from 1 (lowest) to 10 (highest)	5.39	5.65	6.60
Level of excitement – Internship (1 to 7)	6.43	6.34	6.48
Level of excitement – First day of employment (1 to 7)	5.48	5.27	5.57
Level of excitement – Today (1 to 7)	2.83	3.17	3.83

*interns removed.

The maximum number of responses for the Big 4, Mid-Tier, and Other categories are 675, 41, and 60, respectively.

TABLE 10
 Audit Workloads, Reporting of Time, and Perceived Rewards – Current versus Former Auditors

<i>Panel A: Audit Workloads (Means)</i>		
	<u>Current</u>	<u>Former^y</u>
Average hours worked during busy season	63.47	66.15
Maximum hours worked during busy season	77.78	80.63
Minimum billable hours during busy season	53.93	54.00
% billable hours > minimum billable hours	72.27	74.98
% billable hours < minimum billable hours	10.15	6.42
<i>Panel B: Audit Workloads and Audit Quality (% and Means)</i>		
	<u>Current</u>	<u>Former</u>
Better auditor when work mandated hours	29.07	26.52
Better auditor when work < mandated hours	36.12	38.41
Better auditor when work > mandated hours	7.05	4.88
Quality of audit work not impacted by hours worked	<u>27.75</u>	<u>30.18</u>
	100.00	100.00
Audit quality deteriorates beyond ___ hours per week	60.91	59.88
<i>Panel C: Reporting of Time and Perceived Rewards</i>		
	<u>Current</u>	<u>Former</u>
Likelihood of underreporting time (1=not at all likely; 4=neutral; 7=very likely)	3.45	3.72
Underreporting time results in a better performance evaluation (1=strongly disagree; 4=neutral; 7=strongly agree)	3.28	3.83
Primarily rewarded for audit efficiency or audit effectiveness (1=efficiency; 4=both equally; 7=effectiveness)	3.78	3.54
Firm rewards taking a strong stance on audit issues, even if it means that client retention is jeopardized (1=strongly disagree; 4=neutral; 7=strongly agree)	4.47	4.06

^yFormer auditors were asked to report values for the time period in which they were practicing auditors. The maximum number of responses for the Current and Former categories are 299 and 477, respectively.

TABLE 11
Top Responses – Current versus Former Auditors

<i>Panel A: Top Responses</i>	% Reporting as Top Choice	
Benefits to Increasing Workload	<u>Current</u>	<u>Former</u>
I develop stronger relationships with colleagues	39.45	41.98
My knowledge and expertise increase	34.60	24.40
I develop stronger relationships with clients	5.54	7.03
Detriments to Increasing Workload	<u>Current</u>	<u>Former</u>
Personal relationships	32.88	34.35
Personal health	30.82	36.52
Documentation of work performed	17.47	13.04
Contributors to Audit Quality	<u>Current</u>	<u>Former</u>
Appropriate staffing (i.e., experience and expertise)	32.17	34.57
Timely client information / assistance	21.68	26.74
Adequate staffing (i.e., the right amount)	24.13	16.30
Impediments to Audit Quality	<u>Current</u>	<u>Former</u>
Understaffing	23.43	18.87
Deadline constraints	16.78	17.79
Staff turnover	12.24	11.06
Workload Fatigue / Excessive Hours	8.04	12.61
Budget constraints	17.83	13.26
Contributors to Morale	<u>Current</u>	<u>Former</u>
Valuable relationships with other colleagues	29.68	34.00
Flexible work arrangements (e.g., working from home)	29.68	15.44
Adequate financial compensation	18.73	16.33
Workload evenly spread throughout the year	5.30	9.62
Impediments to Morale	<u>Current</u>	<u>Former</u>
Workload fatigue / excessive hours	49.82	57.74
Inadequate financial compensation	20.49	17.92
Staff turnover	10.25	7.08
<hr/>		
<i>Panel B: Attitude about Auditing Profession (Scale)</i>	Average Response*	
Characteristic	<u>Current</u>	<u>Former</u>
Level of job satisfaction from 1 (lowest) to 10 (highest)	5.86	5.27
Level of excitement – Internship (1 to 7)	6.33	6.50
Level of excitement – First day of employment (1 to 7)	5.36	5.55
Level of excitement – Today (1 to 7)	3.72	2.40

*interns removed.

The maximum number of responses for the Current and Former categories are 298 and 452, respectively

TABLE 12
Multivariate Logit Models

Variable	Dependent Variables					
	<i>SATIS</i>		<i>EXCITE</i>		<i>INCR_EXCITE</i>	
	(1-10)	(1-10)	(1-7)	(1-7)	(0,1)	(0,1)
	Coeff (Odds)	Coeff (Odds)	Coeff (Odds)	Coeff (Odds)	Coeff (Odds)	Coeff (Odds)
<i>AVGHOURS</i>	-0.01** (0.986)	-0.01 (0.992)	-0.01** (0.986)	-0.00 (0.997)	-0.02* (0.985)	-0.00 (0.999)
<i>AVG_SUFFERS</i>	--	-0.56*** (0.573)	--	-0.49*** (0.613)	--	-0.71*** (0.494)
<i>EFF</i>	0.09* (1.091)	0.15*** (1.166)	0.09* (1.109)	0.11** (1.120)	0.17*** (1.188)	0.19*** (1.205)
<i>STANCE</i>	0.17*** (1.189)	0.25*** (1.283)	0.17*** (1.189)	0.15*** (1.156)	0.10* (1.109)	0.06 (1.059)
<i>UNDER</i>	-0.08** (0.921)	-0.04 (0.959)	-0.08** (0.921)	-0.06 (0.938)	-0.16*** (0.856)	-0.13** (0.878)
<i>AUDRANK</i>	-0.50*** (0.604)	-0.64*** (0.528)	-0.50*** (0.604)	-0.51*** (0.600)	-0.37*** (0.691)	-0.38*** (0.686)
<i>FIRM</i>	0.27** (1.307)	0.23* (1.258)	0.27** (1.307)	0.23* (1.259)	0.26* (1.297)	0.22 (1.243)
<i>FORMER</i>	-1.34*** (0.261)	-0.25* (0.780)	-1.34*** (0.261)	-1.29*** (0.276)	-1.52*** (0.218)	-1.46*** (0.234)
Pseudo R-square	0.08	0.06	0.08	0.08	0.17	0.17
Model Chi-Square	210.53***	181.89***	210.53***	192.05***	168.79***	154.60***
N	741	664	741	668	741	668

Odds Ratios are in parentheses; *, **, and *** denote significance at 10%, 5%, and 1%, respectively (two-tailed)

Variables are defined in Appendix.

TABLE 13
Univariate Results

	Auditor Rank				Audit Firm Size			Current versus Former Auditor	
	P/SrMgr (1)	Mgr (2)	Sr (3)	Staff (4)	Big 4 (a)	Mid-Tier (b)	Small (c)	Current	Former
<i>SATIS</i>	6.90 ³⁴	6.73 ³⁴	5.56 ¹²⁴	4.57 ¹²³	5.39 ^c	5.65	6.60 ^a	5.86	5.27 ^{**}
<i>EXCITE</i>	4.10 ³⁴	3.64 ³⁴	2.73 ¹²	2.65 ¹²	2.83 ^c	3.17	3.83 ^a	3.72	2.40 ^{**}
<i>INCR_EXCITE</i>	0.69 ³⁴	0.53	0.44 ¹	0.40 ¹	0.44 ^c	0.59	0.62 ^a	0.69	0.31 ^{**}
<i>AVGHOURS</i>	61.90 ³	65.22	66.37 ¹⁴	64.03 ³	66.01 ^c	63.54 ^c	56.19 ^{ab}	63.47	66.15 ^{**}
<i>AVG_SUFFERS</i>	0.43 ³	0.52	0.64 ¹	0.60	0.63 ^c	0.46	0.32 ^a	0.54	0.64 ^{**}
<i>EFF</i>	3.80	3.97 ⁴	3.64	3.45 ²	3.62	3.78	3.70	3.78	3.54 [*]
<i>STANCE</i>	4.88 ³⁴	4.64 ³⁴	4.15 ¹²	4.00 ¹²	4.19	4.15	4.55	4.47	4.06 ^{**}
<i>UNDER</i>	3.29	3.26	3.73	3.68	3.62	3.32	3.78	3.28	3.83 ^{**}

Superscripts denote significance at $p < 0.05$ (two-tailed) for column comparisons (ANOVA). For example, 6.90³⁴ in cell #1 indicates that the response for partners and senior managers is significantly different from the response for seniors (3) and staff (4).

** , * denote significance at $p < 0.01$, $p < 0.05$ (two-tailed) for mean difference comparison (t-test) between current and former auditors.

Variables are defined in Appendix.