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An Investigation of Auditor Perceptions about Subsequent Events and Factors That Influence This Audit Task

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SYNOPSIS: Events that occur after the balance sheet date but before the audit report is signed and dated (subsequent events) may have a material effect on the financial statements and their users. New SEC reporting requirements reduce the time between the balance sheet and report dates, limiting the availability of subsequent event evidence. Professional groups, including the Canadian Institute of Chartered Accountants (CICA) and the American Institute of Certified Public Accountants (AICPA), question whether sufficient evidence will exist if subsequent event information is not available. They fear that decreased availability of subsequent event evidence may lower the quality of both audit judgments and financial reporting.

Scant prior research examines auditors' perceptions about subsequent events. Our study examines how auditors search for and discover subsequent event evidence and factors that influence this process. Responses from auditors representing all Big 4 firms and one national firm suggest that subsequent event evidence is important. Auditors generally follow procedures recommended by audit standards; however, recommended procedures uncover subsequent event evidence with low frequency. Implications for future research are discussed.

Keywords: subsequent event; evidence evaluation; auditor judgment; timely reporting.

Data Availability: Data are available from the authors upon written request.

INTRODUCTION

Events and/or transactions that occur after the balance sheet date but before the audit report is signed and dated are called subsequent events. In traditional audits, persuasive audit evidence is often obtained by examining transactions that occur after the balance sheet date (CICA 1999). New regulations (SEC 2002; SEC 2005) reduce the lag between period end and issuance of financial reports. Further, market trends indicate

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the accounting profession may be moving toward a continuous audit in which the lag between the period end and report date will be further reduced or cease to exist (Kogan et al. 1999; Hunton et al. 2004; PricewaterhouseCoopers 2006). A decrease in lag time reduces the availability of subsequent event evidence, resulting in auditors basing their opinions on less evidence than obtained currently in a traditional financial statement audit (Ettredge et al. 2000; CICA 1999).

Generally accepted auditing standards specifically require auditors to consider subsequent event evidence (AICPA 2007, AU 560). Further, standard setters believe subsequent events are important, and the International Accounting Standards Board (IASB), the American Institute of Certified Public Accountants (AICPA), and the Accounting Standards Board (AcSB) in Canada are attempting to reach convergence (CICA 2005; IFA 2006). In spite of the significant attention from standard setters, we found no published research to date on how auditors search for or use subsequent event evidence in the audit, nor on auditors' perceptions regarding the importance of such evidence.

Understanding how the changing needs of society (e.g., demand for more timely financial reporting and auditing) affect the audit (e.g., diminished availability of subsequent event evidence) is an important research objective (Carmichael 2004). Reduced availability of subsequent event evidence may require auditors to rely on less persuasive¹ evidence, reducing audit effectiveness (CICA 1999). Further, to the extent that companies engage in earnings management, "financial manipulations" may occur during the final closing process, and subsequent event evidence may be key to uncovering these manipulations. Thus, the reduced availability of subsequent event evidence may make detecting earnings management more difficult (Healy and Whalen 1999).

Prior research examines factors affecting the likelihood that auditors will find errors (e.g., Houghton and Fogarty 1991; Kinney and Martin 1994). For example, Houghton and Fogarty (1991) suggest that auditors are more likely to find errors in nonroutine accounts. However, their research does not explore whether auditors identified the errors based upon historical or subsequent event evidence. Before researchers can experimentally manipulate subsequent event evidence to explore its impact on audit judgment, we need to understand the factors that influence the subsequent event search and discovery process. Additionally, experimentalists are likely to use this sort of evidence in conjunction with psychological theory to develop testable hypotheses.

Thus, our goals are to:

- verify that auditors perceive subsequent event evidence to be important,
- understand the process auditors employ to search for subsequent event evidence,
- determine whether auditors uncover subsequent event evidence, and
- examine factors influencing this process.

According to Gibbins and Qu (2005), an experiential questionnaire is designed to study the context in which experts work, as represented by cases they have experienced and can describe. We use an experiential questionnaire that focuses on how auditors currently search for and discover subsequent event evidence. One hundred and six auditors representing all four Big 4 firms and one national firm provide responses. Results indicate that auditors

¹ *Evidence persuasiveness* refers to the degree to which the auditor is convinced that the judgment is correct with a high level of assurance (Arens et al. 2006, 164). Subsequent event evidence is considered persuasive since it (1) provides evidence with respect to either conditions that existed at the balance sheet date or accounting estimates inherent in the process of preparing financial statements, and (2) is generally generated by external rather than internal sources. Prior research finds external rather than internal evidence is more persuasive (Hirst 1994; Caster and Pincus 1996; Reimers and Fennema 1999).

perceive subsequent event evidence to be important to the audit process. Nearly all respondents discovered at least one material subsequent event within the past year and referred to subsequent event evidence during the audit process.

Professional standards require that auditors search for subsequent events after the balance sheet date and at or near the end of the fieldwork (AICPA 2007, AU 560). One-third of respondents do not form their initial account judgment until after the balance sheet date, and approximately 75 percent typically perform the majority of fieldwork after the balance sheet date. This timing will likely change as the time between period end and the issuance of financial reports decreases; auditors will have less time to complete audit procedures after the balance sheet date and less time to search for subsequent event evidence. Although auditors generally follow procedures recommended by audit standards to search for subsequent event evidence, the likelihood that any one procedure uncovers a subsequent event is low. Finally, several factors, including balance sheet date judgment characteristics, characteristics of the anticipated challenge evidence,² and environmental characteristics influence how auditors search for subsequent event evidence and whether they discover it.

These findings are important as researchers, standard setters, and practitioners consider how reducing the availability of subsequent event evidence can affect audit judgment. Given the lack of prior research, we attempt to develop a more complete understanding of the subsequent event evidence search and discovery process in order to provide a foundation for making policy decisions, building conceptual models, and designing experiments. Finally, our work informs audit educators about important aspects of current practice.

OVERVIEW OF SUBSEQUENT EVENTS AND PRIOR RESEARCH

Regulatory Environment

In 2005, the SEC reduced the lag time between the balance sheet date and the date that financial reports are filed with the SEC from 90 to 60 days for annual reports and from 45 to 40 days for quarterly reports for large accelerated filers (SEC 2002; SEC 2005).³ Market trends suggest that the accounting profession may move toward a continuous audit in which the lag time between the period end and the financial reports continues to decrease or ceases to exist (Kogan et al. 1999; PricewaterhouseCoopers 2006). The joint report by the Canadian Institute of Chartered Accountants (CICA) and the AICPA suggests that decreased availability of subsequent event evidence might mean auditors would be basing their opinions on evidence inherently less reliable or persuasive than that obtained currently in traditional financial statement audits (CICA 1999, 74).

Standard setters believe subsequent events are important to the audit process. In December 2003, the International Accounting Standards Board (IASB) issued the improvements to International Financial Reporting Standard IAS 10, *Events After the Balance Sheet Date* (CICA 2004) to converge with U.S. reporting standards as detailed in the AICPA's codification of Statements on Auditing Standards AU 560, *Subsequent Events* (AICPA 2007). The AcSB in Canada issued an exposure draft in March 2004 that attempted to bring convergence between U.S., International, and Canadian Standards (CICA 2004). Although the AcSB elected to discontinue this effort in December 2005 due to changes in

² *Challenge evidence* refers to any additional evidence items, including subsequent event evidence that may cause an individual to reconsider or "challenge" his/her current judgment (Muthukrishnan et al. 1999). Our study examines two challenge characteristics: consistency with prior evidence and materiality.

³ Large accelerated filers must comply with the new reporting deadlines for fiscal years ending on or after December 15, 2006. The SEC defines large accelerated filers as companies with public float of \$700 million or larger. Accelerated filers (i.e., companies with at least \$75 million in public float but less than \$700 million) must file annual reports within 75 days and quarterly reports within 40 days of period end (SEC 2005).

provincial security laws, they acknowledged significant divergence between U.S., International, and Canadian standards (CICA 2005). Furthermore, the International Auditing and Assurance Standards Board approved an exposure draft, International Standard on Auditing (ISA) 560 in December 2006 (IFA 2006). In spite of the significant attention from standard setters, a literature search reveals no published research to date on the importance of subsequent events in the audit.

The Audit Process and Subsequent Events

Auditors generally form their judgments⁴ of the fairness of account balances by the balance sheet date (Koonce 1993; Hirst and Koonce 1996). However, subsequent events may challenge their judgments, particularly with respect to accounting estimates (AICPA 2007, AU 560.05). Subsequent events can be separated into adjusting events and nonadjusting events (AICPA 2007, AU 560.02). Adjusting events provide additional information about (1) conditions that existed at the balance sheet date or (2) accounting estimates inherent in the financial reporting process. The adjustments required by these events may have a material effect on the financial statements (AICPA 2007, AU 342.10 and AU 560.03). Even when the subsequent event information does not lead to adjustments to account balances, the information is relevant if it increases auditors' confidence that the account balances are presented fairly. As the lag between the period end and the report date decreases, reduced availability of subsequent event evidence may require auditors to rely on less persuasive evidence, reducing audit effectiveness (CICA 1999).

Nonadjusting events provide information about conditions arising *after* the balance sheet date. To the extent these events are material, Generally Accepted Accounting Principles (GAAP) require the information to be disclosed in the notes to the financial statements (AICPA 2007, AU 560.05). A shorter lag between the period end and the report date would reduce the likelihood of material events occurring during this period. However, the overall impact on the quality of financial reporting is difficult to determine since material subsequent events may be key to uncovering financial manipulations (Healy and Whalen 1999).

Auditors search for, discover, and evaluate evidence throughout the audit process. Auditors conduct significant substantive testing after the balance sheet date, and standards require auditors to consider subsequent event evidence at or near the end of fieldwork (AICPA 2007, AU 560.12; Makkawi and Abdolmohammadi 2004). However, models of the audit process used in research typically do not include subsequent event evidence collection and evaluation (see Felix and Kinney 1982; Bonner and Pennington 1991).

Perceived risk affects audit program planning decisions, and procedures may be timed closer to or at the end of the fiscal year as the risk of material misstatement increases (Makkawi and Abdolmohammadi 2004). Koonce (1993) suggests that an auditor's initial account balance judgment is based on *historical* evidence (i.e., evidence about events that is available by the balance sheet date). Auditors may search for evidence that is not available until after the balance sheet date based on (1) their initial audit plan (i.e., audit procedures planned to occur after the balance sheet date) and/or (2) evidence collected during the audit that causes them to revise their initial plan (AICPA 2007, AU 560.12). To the extent

⁴ Koonce (1993) notes that "the initial representation (or judgment) is particularly important since it can either facilitate or inhibit the subsequent problem-solving process" (Kassiter and Kopelman 1987, 1989). Based on interviews with practitioners, Hirst and Koonce (1996) find that auditors develop initial judgments about the fairness of account balances and that during planning, they perform a variety of analytical procedures to identify unexpected differences in account balances and other financial relationships.

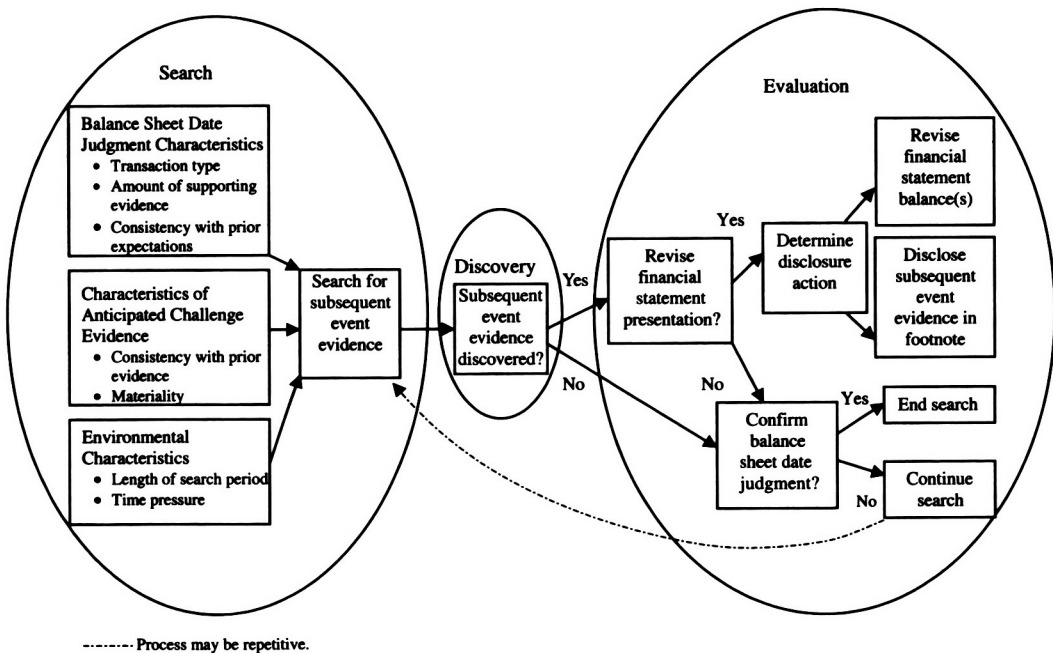
that auditors form their initial account judgments and/or perform fieldwork prior to the balance sheet date, they may have more time to devote to searching for subsequent events.

Standards suggest ten procedures that auditors may use to search for subsequent event evidence (AICPA 1976; AICPA 2007, AU 560.11-12). Some of these procedures are normally integrated into the year-end account balance verification process (e.g., examining client cutoff procedures and valuation tests) while others are specifically performed to search for and find subsequent events (e.g., reading interim financial statements prepared since the balance sheet date, inquiring of management with regard to contingent liabilities that existed at balance sheet date, and obtaining a representation letter from client management) (AICPA 2007, AU 560.11-12).

A Model of Subsequent Event Search, Discovery, and Evaluation

As illustrated in Figure 1, evidence search, discovery, and evaluation are interdependent (Einhorn and Hogarth 1981; Knechel and Messier 1990; McMillan and White 1993; Green and Trotman 2003). Auditors searching for relevant subsequent event evidence may find none because such events do not exist, or because their search strategies do not detect them (Asare and Wright 2003). If auditors find subsequent event evidence, they may use it to improve their assessments of (1) conditions that existed at the date of the balance sheet, (2) accounting estimates inherent in the process of preparing financial statements, and/or (3) material events that occurred after the balance sheet date (AICPA 2007, AU 560.03 and

FIGURE 1
A Model of Subsequent Event Evidence Search, Discovery, and Evaluation



AU 560.05). Subsequent event evidence may cause auditors to revise their initial judgment as to whether account balances are fairly presented, or the evidence may confirm their balance sheet date judgment (AICPA 2007, AU 560.02-07). If no subsequent event evidence is found, auditors must decide, based on their current audit plan and assessed risk, whether to rely on their extant judgments or expand their subsequent event evidence search.

The focus of our research is the first two components of Figure 1, namely Search and Discovery. The audit planning process for collecting subsequent event evidence differs from the planning process for evidence collected prior to the balance sheet date (i.e., historical evidence) in that auditors may base their subsequent event search effort not only on factors used to search for historical evidence (i.e., risk assessment and likelihood that evidence search will be successful), but also on (1) their balance sheet date judgment characteristics (Hogarth and Einhorn 1992), (2) the characteristics of the anticipated challenge evidence they find (Muthukrishnan et al. 1999), and (3) environmental characteristics (Libby and Luft 1993).

Balance Sheet Date Judgment Characteristics

Balance sheet date judgment characteristics include transaction type, amount of supporting evidence, and consistency with prior expectations. Each of these characteristics may impact whether auditors search for and find subsequent event evidence.

Transaction Type

Accounts that consist primarily of common, recurring transactions are considered routine accounts, while those consisting primarily of unusual or one-time transactions are classified as nonroutine accounts. Houghton and Fogarty (1991) suggest auditors are more likely to find errors in nonroutine rather than routine accounts.

Amount of Supporting Evidence

The amount of evidence available to auditors on the balance sheet date varies due to (1) initial audit planning decisions, (2) initial judgment, and (3) challenge evidence discovered before period end (Caster and Pincus 1996). Psychology research suggests that the likelihood that individuals will search for additional information is dependent on the sufficiency of evidence available when the initial (in this case, balance sheet date) judgment is formed (Hogarth and Einhorn 1992).

Consistency with Prior Expectations

Standards suggest that auditors form their opinions about account balances by comparing recorded financial information to their expectations of the account value (AICPA 2007, AU 329.05). Auditors are more likely to have lower confidence in their balance sheet date judgment if the historical evidence they collect and use for their initial judgment and any pre-balance sheet date revisions deviate from their expectations (Pincus 1991). Lower confidence may trigger a search for additional subsequent event evidence.

Characteristics of Anticipated Challenge Evidence

Auditors' decisions to search for subsequent event evidence is likely to be influenced by characteristics of the anticipated challenge evidence. Specifically, we consider consistency of anticipated challenge with prior evidence and its degree of materiality.

Consistency of Anticipated Challenge with Prior Evidence

Auditors' expectations about whether additional evidence will confirm or contradict the evidence available at the balance sheet date may drive decisions to search for subsequent

event evidence. Research results indicate that decision makers may be more apt to search for confirming rather than disconfirming evidence (Elstein et al. 1978; Bouman 1980).

Materiality of Anticipated Challenge

Subsequent events may impact individual accounts (e.g., bankruptcy of an individual significant trade receivable customer or damage to inventory) or the entire set of financial statements (e.g., discovery of fraud by senior management, refinancing a significant portion of the firm's debt, or settlement of a major pending litigation) (AICPA 2007, AU 342 and AU 560). Financial statement level subsequent event evidence is more likely to be material than account level subsequent event evidence (Blokdijk et al. 2003; Patterson and Smith 2003). Thus, auditors may be more likely to search for subsequent event evidence when they anticipate that this evidence will impact the entire financial statement rather than individual accounts.

Environmental Characteristics

Environmental characteristics may influence auditors' willingness to search for subsequent event evidence (Hogarth and Einhorn 1992; Libby and Luft 1993; Bamber et al. 1997). We consider length of search period and time pressure.

Length of Search Period

Audit standards suggest that procedures to ascertain the occurrence of subsequent event evidence "should be performed at or near the completion of the field work" (AICPA 2007, AU 560.12). The reduction in the time between balance sheet and report date recently mandated by the SEC (SEC 2002; SEC 2005) directly reduces the length of the period available for auditors to search for subsequent event evidence.

Time Pressure

Time pressure influences whether, how, and when audit procedures are performed (McNair 1991; Braun 2000). Regardless of the length of search period, auditors may experience time pressure if the actual audit hours used to date is near or exceeds the budgeted hours (Libby and Luft 1993). This time pressure may reduce auditors' ability to perform audit procedures that may detect subsequent events.

THE STUDY

Data Collection and Sample

Based upon prior auditing and psychology literature, as well as discussions with practitioners, we developed a field-based experiential questionnaire. The instrument consists of four parts. First, we collected demographic information. Next, we asked respondents to rate how often they search for and discover subsequent event evidence in typical audit scenarios. Third, we elicited perception ratings on how often participants search for and discover subsequent event evidence using each of the ten search procedures recommended by audit standards. Finally, we asked for general information about current practice with respect to subsequent event search, discovery, and usage. We collected information about current practice last to reduce the potential for experimental demand (Schepanski et al. 1992). We pilot-tested the instrument with five experienced auditors and made revisions based on their feedback.

Participants

One hundred and six U.S. auditors from each of the Big 4 firms and one national firm participated in this study. Participants averaged 9.6 years of external audit experience. Most

participants supervised at least two other auditors; 27 percent supervised 15 or more auditors. Half of the participants audited large regional clients, 21 percent served smaller regional clients, and 18 percent audited Fortune 500 clients. Sixty-two males and 44 females participated in the study. Participant rank varied as 37.5 percent held staff or senior positions, 37.5 percent were managers or senior managers, and 25 percent were partners.⁵

Methodology

Data were collected over a one-year period. Forty-six responses were collected using hard-copy forms. Subsequently, 60 responses were collected using a web-based questionnaire. Statistical analysis indicates no significant difference in responses across the two data collection methods.

For the hard-copy data collection, a partner or a senior manager from each firm made arrangements for participants. An administrative assistant at each office distributed numbered envelopes with an introductory letter, the questionnaire, and a numbered return envelope, stamped and addressed to the researchers. No identifying number appeared on the questionnaire. The administrative assistant at each office kept track of the number assigned to each participant. After two weeks, we sent a list of the numbers that had not been returned to each assistant, along with a second request for participation. The assistants forwarded the second request to the nonrespondents.⁶

For web-based data collection, a partner or senior manager from each firm sent a personal note to contacts at other offices requesting participation and providing a link to the research materials. The instructions asked participants to indicate their firm and office on one line of the questionnaire. This ensured that all responses were valid participants because an individual surfing the web who might come across the study would not know to provide this information.⁷

Results

Subsequent Event Evidence Importance and Usage

To evaluate respondents' perceptions regarding the importance and usage of subsequent event evidence, we asked participants to rate the following statement on an 11-point Likert-type scale where 0 = "extremely disagree" and 10 = "extremely agree": "I believe that subsequent event evidence is important." Because auditors may face a tradeoff between timely reporting and searching for additional subsequent event evidence, we also asked respondents to rate their agreement with the statement, "Issuing timely reports is more important than searching for subsequent event evidence." Average responses to these questions are reported in Panel A, Table 1. We used a paired-samples t-test to evaluate the

⁵ Because prior literature in psychology and auditing suggests that demographic information may influence judgments (e.g., Johnson et al. 1996), we examined the impact of three demographic variables on reported responses: firm affiliation, experience, and gender. We also examined size of clients audited and participant firm rank. No statistically significant differences in the responses exist based on any of these variables, so we aggregated all responses for the analyses presented.

⁶ For the first administration of the survey, we collected data by distributing hard copy forms. Our contacts at four firms each agreed to provide fifteen participants. Based on their commitment of a total of 60 subjects, the 46 responses we received is a response rate of 77 percent. We left additional forms at each of the firms should more people who were qualified be willing to complete the survey. We distributed a total of 80 forms. Based on number of forms distributed, our response rate was 58 percent. We compared responses received from the first request for hardcopy responses to those from the second request. There were no statistically significant differences.

⁷ For the second administration of the survey, we used a web-based survey instrument. Five firms agreed to provide participants. We were unable to calculate a response rate for the second administration of the survey as we provided a web link to one contact person at each firm. Each contact person was not required to track the number of times he/she distributed the web link to potential participants.

TABLE 1
Subsequent Event Evidence Importance and Usage

Panel A: Average Perceived Importance of Subsequent Event Evidence

	<u>Number</u>	<u>Mean (Std. Dev.)</u>
I believe that subsequent event evidence is important. ^a	106	9.02 (1.26)
I believe that issuing timely reports is more important than searching for subsequent event evidence. ^a	106	2.88 (2.27)

Panel B: Counts (and Percentages) of How Subsequent Event Evidence Search is Implemented

	<u>Number</u>	<u>Percent</u>
Number of times participant refers to or uses subsequent event evidence during typical audit^b		
Never	3	2.9%
Once	21	20.0%
Twice	17	16.2%
More than twice	64	61.0%
Totals	<u>105</u>	<u>100.0%</u>
Circumstances under which participant refers to or uses subsequent event evidence during typical audit^c		
Continually throughout the post audit testing (i.e., testing between balance sheet date and audit report date)	91	
Only at the end of post audit testing	28	
Only for material accounts	29	
Thought process when reviewing evidence after balance sheet date^b		
I never distinguish between historical and subsequent event evidence	6	5.8%
I sometimes distinguish between historical and subsequent event evidence	28	27.2%
I often distinguish between historical and subsequent event evidence	31	30.1%
I always distinguish between historical and subsequent event evidence	38	36.9%
Totals	<u>103</u>	<u>100.0%</u>
Auditor's use of client-prepared monthly financial reports^b		
No access to client's monthly financial reports	3	2.9%
Use only monthly financial reports prepared subsequent to the fiscal year-end	4	3.8%
Use only monthly financial reports prepared before fiscal year-end	14	13.3%
Use monthly financial reports prepared both before and subsequent to fiscal year-end	84	80.0%
Totals	<u>105</u>	<u>100.0%</u>

^a Participants rated statements on an 11-point Likert-type scale where 0 = "extremely disagree" and 10 = "extremely agree."

^b One or more participants did not answer the question.

^c Sum of rows exceeds 106 since participants could choose more than one answer.

differences in responses and found that participants identified subsequent event evidence as significantly ($p = 0.00$) more important (9.02) than the need for timely reporting (2.88). Additionally, only three of the 106 participants evaluated issuing timely reports as more important than searching for subsequent event evidence.

We asked respondents how often they refer to or use subsequent event evidence during the audit and asked them to reply either "never," "once," "twice," or "more than twice." We also asked if they refer to subsequent event evidence, "continually," "only at the end of post audit testing," or "only for material accounts." As shown in Table 1, Panel B, over 60 percent of the respondents use subsequent event evidence more than twice during a typical audit, and 86 percent continually use subsequent event evidence in evaluating account balances throughout post-audit testing during a typical audit.

We asked respondents to consider their thought process when reviewing evidence and to indicate whether they "never," "sometimes," "often," or "always" distinguish between subsequent event evidence and historical evidence. Thirty-seven percent always distinguish between historical and subsequent event evidence when reviewing evidence after the balance sheet date.

We also asked respondents when they use client-prepared monthly financial reports in the audit. The possible responses were that they "do not have access to such reports," "only use monthly financial reports prepared subsequent to the fiscal year-end," "only use monthly financial reports prepared prior to the fiscal year-end," or "use monthly financial reports prepared both before and after the fiscal year-end." Eighty percent of respondents use client-prepared monthly financial reports for periods both before and subsequent to the balance sheet date. These results indicate that auditors perceive that subsequent event evidence is important and that they use subsequent event evidence in the audit.

Subsequent Event Evidence Search

We elicited respondent perceptions regarding subsequent event evidence search. We also elicited information about whether they use procedures recommended in the audit standards (AICPA 2007, AU 560.12).

We asked respondents if they put "less than two hours," "between two and four hours," "between five and ten hours," "between 11 and 20 hours," or "over 20 hours" into searching for subsequent event evidence. Thirty-eight percent reported that they spend two to four hours searching for subsequent event evidence in a typical audit and 30 percent search between five and ten hours. We asked respondents when, in a typical audit, they form their initial evaluation of account balance fairness. Possible responses were "during interim testing," "prior to period end," "at period end," "during post balance sheet testing," or "only at the end of post balance sheet testing." Similar to results reported in Koonce (1993), almost two-thirds of the respondents form their initial evaluation of account balance fairness in a typical audit on or before the balance sheet date. We also asked when they perform the majority of the fieldwork. Possible responses were "five weeks or longer before period-end," "immediately before period end," "at period end," or "after period end." Consistent with results reported by Searcy et al. (2003), 71 percent of respondents perform most of the fieldwork in a typical audit after the balance sheet date.

We asked respondents to indicate how frequently they perform each of the ten search procedures recommended by the auditing standards (AICPA 2007, AU 560.12). Given these procedures are taken from professional standards, we expect auditors to report high compliance. The second column of numbers in Table 2 indicates that the participants report that they generally performed each search procedure; the mean response was greater than 9 (based on a 0 = "never" and 10 = "always" scale) for nine of the ten recommended procedures, and 8.54 for the tenth procedure.

TABLE 2
Current Subsequent Event Evidence Search Procedures and Frequency of Success

	Number	Search Mean^a (Std. Dev.)	Discovery Mean^a (Std. Dev.)
Inquire of management regarding substantial contingent liabilities or commitments existing at balance sheet date	106	9.90 (0.38)	4.68 (2.77)
Obtain letter of representation regarding events since balance sheet date that require adjustment or disclosure	106	9.82 (0.96)	3.77 (3.25)
Read minutes of meetings of stockholders, directors, and appropriate committees	106	9.73 (1.09)	4.82 (2.62)
Inquire of management regarding changes in capital stock, long-term debt, or working capital	106	9.71 (0.99)	4.16 (2.89)
Inquire of management regarding any unusual adjustments since balance sheet date	106	9.64 (1.03)	3.91 (2.73)
Inquire of management regarding status of financial items initially based on tentative, preliminary, or inconclusive evidence	106	9.55 (1.08)	4.21 (2.66)
Inquire of client's legal counsel regarding litigation, claims, and assessments	106	9.45 (1.57)	4.65 (2.83)
Examine cutoffs ^b	105	9.33 (1.47)	5.60 (2.50)
Examine data to aid in evaluating balance sheet date assets and liabilities ^b	105	9.32 (1.31)	5.27 (2.53)
Read interim financial statements	106	8.54 (2.47)	3.87 (2.90)

^a Responses on an 11-point scale where 0 = "never" and 10 = "always."

^b One or more participants did not answer the question.

Subsequent Event Evidence Discovery

Of course, the search process does not always result in the auditor finding additional evidence. Further, the impact of evidence is a function of materiality. We asked respondents how many times they discovered material subsequent event evidence within the last year. Almost 90 percent of the respondents discovered such evidence at least once, and 45 percent indicated that they discovered subsequent event evidence more than twice in the past year. When asked at what point during the audit the evidence was discovered, 55 percent said they discovered the subsequent event evidence within 30 days following the fiscal year-end.

Respondents were asked to indicate on an 11-point Likert-type scale how often each of ten audit procedures recommended by the auditing standards resulted in the discovery of material subsequent event evidence. Interestingly, as shown in the third column of numbers in Table 2, the perceived frequency of discovering subsequent event evidence using search procedures recommended by audit standards is low. Responses using a scale where 0 = "never" and 10 = "always" varied from 3.77 for obtaining a letter of representation regarding events since balance sheet date to 5.60 for examining cutoffs.

Factors Influencing Subsequent Event Evidence Search and Discovery

Next, we explore factors that may influence how auditors search for and whether they discover subsequent event evidence (see Figure 1). Participants responded to pairs of

questions designed to examine each factor. The factors include balance sheet date, anticipated challenge, and environmental characteristics. Paired t-tests are used to examine the difference in responses to each pair of questions for each factor.⁸

Balance Sheet Date Judgment Characteristics

We elicited auditors' perceptions about subsequent event search and discovery with respect to *transaction type*. We asked them how often they search for and how often they find subsequent event evidence for routine and nonroutine accounts. Responses were on a Likert-type scale ranging from 0 for "never" to 10 for "always." As shown in Table 3, participants reported *searching* for subsequent evidence more often when the account is nonroutine (9.43) than when the account is routine (9.05). The paired t-test shows that the two responses are significantly different ($p = 0.01$). However, we do not detect a significant difference in *finding* subsequent event evidence for routine versus nonroutine accounts.

We study the impact of *the amount of supporting evidence* by asking the auditors how often they search for and how often they find subsequent event evidence when either ample or minimal supporting evidence is available at the time the balance sheet date judgment was made. Participants reported *searching* for subsequent event evidence significantly ($p < 0.01$) more frequently when there is minimal evidence available (8.67) than when there is ample evidence (7.14). Participants also *find* subsequent event evidence significantly ($p < 0.01$) more often when minimal evidence supporting the initial judgment exists (4.90) than when ample evidence is available (3.83).

To evaluate the impact of *consistency with prior expectations*, we asked auditors how likely they are to search for and to find subsequent event evidence when their balance sheet date judgments are consistent with their prior account expectations. Participants reported *searching* for subsequent event evidence significantly ($p < 0.01$) more often when expectations were not met (8.58) than when expectations were met (6.88). Participants also reported *finding* subsequent event evidence significantly ($p < 0.01$) more often when their prior expectations are not met (4.73) than when the expectations are met (3.83).

Characteristics of Anticipated Challenge

Consistent with prior research (Koonce 1993; Hirst and Koonce 1996), our results indicate that two-thirds of respondents form their initial judgment on or before the balance sheet date. We examine *consistency of anticipated challenge with prior evidence* by asking auditors how likely they are to search for and to find subsequent event evidence if they perceive that the additional evidence will be either consistent or inconsistent with the current evidence set. Results suggest that participants do not report *searching* for subsequent event evidence more often when the evidence is perceived to be inconsistent with prior evidence. Further, participants *find* subsequent event evidence that is consistent with prior evidence (5.31) significantly ($p = 0.00$) more often than they find evidence that is inconsistent with prior evidence (4.56).

With respect to *materiality of anticipated challenge*, we asked the auditors how likely they are to search for and to find subsequent event evidence when it is likely to impact the

⁸ To evaluate the data, we consider the paired-sample t-test, the sign test, repeated measures ANOVA, and MANOVA. Assumptions of the repeated measures ANOVA are the most stringent, and these assumptions are not met. The distribution of our data exhibits only minor deviations from the assumptions underlying the paired-sample t-test and the sign test. The large sample size, however, minimized this concern as the t-test is robust to minor deviations in the assumptions when samples are relatively large (Hays 1981, 276). The results using the paired-sample t-test and the sign test are consistent, and the paired-sample t-test is more powerful, so we use this technique to draw inferences about each factor.

TABLE 3
Factors Influencing Subsequent Event Evidence Search and Discovery—Means and t-tests

Condition	n	Search^a	Find^a
Panel A: Transaction Type			
Routine material accounts	106	9.05**	4.95
Nonroutine material accounts	106	9.43	4.75
Panel B: Amount of Evidence Supporting Balance Sheet Date Judgment			
Ample supporting evidence available	106	7.14**	3.83**
Minimal supporting evidence available	106	8.67	4.90
Panel C: Consistency with Prior Expectations Regarding Balance Sheet Date Judgment			
Met prior expectations	106	6.88**	3.83**
Did not meet prior expectations	106	8.58	4.73
Panel D: Consistency of Anticipated Challenge with Prior Evidence			
Will confirm the initial evaluation made	106	8.04	5.31**
Will disconfirm the initial evaluation made	106	7.98	4.56
Panel E: Materiality of Anticipated Challenge			
Impacts one material financial account	105	8.52*	4.89
Materially impacts financial statement as a whole	105	8.86	4.74
Panel F: Length of Search Period			
Will be found approximately 5 days after balance sheet date	106	7.76	4.33*
Will be found approximately 45 days after balance sheet date	105	7.88	5.02
Panel G: Time Pressure			
Total audit time over budget	104	8.06	4.62
Little time remains in audit budget	104	8.02	4.67
Ample time remains in audit budget	104	8.45	4.84
Paired-Sample t-tests			One-tailed p-value
Over budget versus Ample time remains search			0.03*
Little remains versus Ample time remains search			0.03*
Over budget versus Ample time remains find			0.05*

*, ** significant difference between mean responses for the pairs of questions at the 0.05, 0.01 levels, respectively, using a one-tailed paired-sample t-test.

^a Responses to a 11-point scale where 0 = "never" and 10 = "always."

financial statements as a whole, and when the evidence is likely to impact a single material account. Results indicate that participants are significantly ($p = 0.03$) more likely to *search* for subsequent event evidence when it is likely to impact the financial statements as a whole (8.86) than a single material account (8.52). However, participants indicated no difference in the frequency with which they *find* subsequent event evidence in these scenarios.

Environmental Characteristics

With respect to the *length of search period*, we asked auditors how often they search for and how often they find subsequent event evidence when they expect it to be found within five days after the year-end or within 45 days of the year-end. Our results suggest that, on average, participants' *search* for subsequent event evidence does not vary with the length of search period. However, participants report that they are significantly ($p < 0.01$) more likely to *find* subsequent event evidence when they expect that the subsequent event evidence may be found 45 days after balance sheet date (5.02) rather than five days (4.33).

We operationalize *time pressure* as: (1) "ample time remains," (2) "little time remains," and (3) "total audit time is over budget." We asked subjects how likely they are to search for and to find subsequent event evidence under these time constraints. Participants are significantly ($p = 0.03$) more likely to *search* for subsequent event evidence when ample time remains (8.45) as opposed to little time remains (8.02). Further, participants are significantly ($p = 0.03$) more likely to *search* when ample time remains (8.45) as opposed to when the audit is over budget (8.06). Auditors perceive that they are marginally more likely to *find* subsequent event evidence when ample time remains (mean = 4.84) as opposed to when the audit is over budget (mean = 4.62; $p = 0.05$). No significant difference in discovery of subsequent event information exists for "little time remaining" (mean = 4.67) versus "ample time remaining" (mean = 4.84; $p > 0.15$). Overall, participants report time pressure makes a difference in the likelihood that they will search for subsequent event evidence; however, it has minimal impact on the likelihood that such evidence will be found.

SUMMARY OF FINDINGS AND FUTURE RESEARCH OPPORTUNITIES

Our results suggest that subsequent event evidence is important in the current audit environment. Because the search for subsequent events occurs after the balance sheet date and at or near the end of the fieldwork, our finding that over 70 percent of the respondents perform the majority of fieldwork after the balance sheet date indicates potential implications for the timing of all audit procedures, including the search for subsequent event evidence. Auditors generally follow suggested audit procedures to *search* for subsequent event evidence; however, the frequency with which they *find* subsequent event evidence using any one procedure appears to be low. Auditors are more likely to *search* for and *find* subsequent event evidence when (1) minimal historical evidence exists, and (2) their balance sheet date judgments do not meet prior expectations. Auditors are more likely to *search* for evidence (1) when evaluating nonroutine account balances, (2) that potentially impacts the financial statements as a whole rather than one account, and (3) when they have ample time to search. Auditors are more likely to *find* subsequent event evidence (1) that is consistent, rather than inconsistent, with their balance sheet date judgment, and (2) when the search period is longer. Finally, time pressure does not impact whether auditors perceive that they *find* significant subsequent event evidence.

Opportunities for Future Research

Triangulating research methodologies often improves our understanding of important issues (Campbell and Fiske 1959; Peecher and Solomon 2001). The current study uses a field-based questionnaire. Our findings could be used as a basis for an archival or field study exploring whether the discovery of subsequent event evidence could have prevented

(or reduced) the recently documented increase in restatements and audit failures (see Palmrose et al. 2004).

Alternatively, researchers could design an experiment to examine the impact of changes in the availability of subsequent event evidence on audit judgment. Our findings suggest that auditors search for and discover subsequent event evidence, but our research does not examine how auditors evaluate this evidence. One driving force behind the trend to reduce the subsequent event period is the demand for more timely financial reports. Thus, a tradeoff between the availability of subsequent event evidence and timelier reporting exists. An interesting research avenue may be to examine and potentially quantify this tradeoff. To date, research identifies several benefits of timely reporting, such as reducing information asymmetry between investors and firms (Kogan et al. 1999) and providing investors with more current information at the time they make buy/sell/hold decisions (Botosan and Harris 2000, 330). However, research examining the costs of reducing the availability of subsequent event evidence and/or the availability of alternative, persuasive evidence on audit judgment (and ultimately audit quality) is sparse.

The low frequency with which auditors discover subsequent event evidence using procedures suggested by auditing standards, coupled with the fact that most auditors report finding evidence of at least one material subsequent event within the past year, may suggest audit inefficiencies exist. What strategies result in the discovery of evidence? The auditing standards recommend ten search strategies. Auditors may be using other strategies to search for subsequent event evidence, and identification of these strategies may improve overall audit efficiency. Auditors may be missing some existing subsequent event evidence. Auditing and information systems researchers argue that detected errors may not represent the actual error characteristics in a population since subjects often do not find all seeded errors (Galletta et al. 1996–1997; Caster et al. 2000). Similarly, future research could explore whether detected subsequent event evidence represents all subsequent event evidence that actually exists. Nelson et al. (2003) discuss the importance of knowing relative frequency information, since frequency information helps auditors generate hypotheses (Libby 1985) and plan audit effort (Heiman 1990; Libby and Frederick 1990). Future research could examine how frequency information may impact subsequent event evidence search and discovery.

Finally, our results should be interpreted in light of certain limitations. First, our participants typically serve large regional companies rather than Fortune 500 clients. Thus, our results may not generalize to auditors serving larger or smaller clients. Second, the responses to our questionnaire may contain a self-serving bias due to concerns regarding legal liability and/or compliance with audit standards. For example, while participants reported they generally follow audit standards (AICPA 2007, AU 560.12) by searching for subsequent event evidence (see Table 2), we also found that almost half of the participants indicated they spend four or less hours searching for subsequent events during a typical audit. Future research could address whether some participants over-reported compliance with audit standards. Alternatively, concerns regarding the adequacy of subsequent event evidence searches may exist if audit programs condense subsequent event search tasks into a standardized procedure that auditors believe can be completed in approximately four hours. Third, conversations with practitioners indicate that auditors may find subsequent event evidence without searching for it. For example, one practitioner indicated that a client called him to report a stock split after the balance sheet date. We did not explicitly ask participants to distinguish between finding subsequent event evidence with or without searching for it.

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