

Feels Like Fraud: A Looming Storm?

Jenny Parlier
Susan D. Hermanson
Heather M. Hermanson
*Dana R. Hermanson**

Introduction

Fraudulent financial reporting cases tend to be cyclical, with a quiet period, several notable frauds, proposed regulations, and passage of some of the proposed regulations. This cycle is followed by another quiet period, and ultimately by more fraudulent financial reporting cases. This cycle has repeated many times over the past century (Clikeman, 2019).

Since the Enron/WorldCom era and the financial crisis in 2008–2009, we have experienced a relatively quiet period in fraudulent financial reporting, other than some notable isolated frauds such as Theranos, Wirecard, and Evergrande. However, based on a variety of indicators, the risk of fraudulent financial reporting appears to be on the rise. Specifically, economic/global, client, and audit firm conditions have created an environment of increased pressure and opportunity to commit fraudulent financial reporting, in part due to concerns about decreased audit quality. Highly capable managers (Wolfe and Hermanson, 2004) are well positioned to exploit such a situation, and managers under heavy pressure can more easily rationalize unethical behavior.

In this article, we discuss several factors pointing to increased risk of fraudulent financial reporting. In addition, we develop practical implications for accountants and auditors in light of the apparently increased fraudulent financial reporting risk.

Factors Suggesting Increased Risk of Fraudulent Financial Reporting

To better explain why fraud occurs, Wolfe and Hermanson (2004) developed the fraud diamond, which adds a fourth element to the fraud triangle. In the fraud diamond, frauds are more likely to occur when there is pressure, opportunity, rationalization, and capability (the specific skills needed to commit fraud, such as intelligence, ability to lie, and ability to deal with stress). In the sections below, we refer to certain elements of the fraud diamond to explain why various factors may be indicative of an increased risk of fraudulent financial reporting today. [See Figure 1, pg. 516]

Economic/Global Conditions

Current economic and global conditions increase the likelihood of instability, which can increase the pressure to commit fraudulent financial reporting.¹ Companies that struggled through, but survived, the COVID-19 pandemic and recent supply chain issues face a heightened expectation of improved performance now that those problems have largely subsided. But current conditions, including inflation and high interest rates, the slowing economy, and international turmoil, are once again increasing pressures on managers to remain profitable and on auditors to deliver high quality audits.

¹ We also acknowledge that some may argue that economic and global turmoil could reduce performance pressure on companies as attention is diverted to larger issues.

Figure 1: Factors Suggesting Increased Risk of Fraudulent Financial Reporting

1. Economic / Global Conditions	2. Client Conditions	3. Audit Firm Conditions
A. Inflation and Interest Rates	A. Remote Work	A. Talent Drain
B. Economic Slowdown	B. Talent Drain	B. Working Conditions
C. International Turmoil	C. Reduced Control Effectiveness	C. Remote Auditing
Impact on Fraud Diamond	Impact on Fraud Diamond	Impact on Fraud Diamond
Increased Pressure	Increased Opportunity	Decreased Audit Quality → Increased Opportunity

Managers with high capability are better able to exploit increased pressures and opportunities, and managers under pressure can more easily rationalize unethical behavior.

Inflation and Interest Rates

With interest rates rising markedly (the federal funds rate increased from near zero to over 5 percent from 2022 to 2023), more companies are struggling to obtain financing, and those that do are struggling to meet interest payments, particularly in an economy that appears to be softening (e.g., see Red Lobster’s bankruptcy [Stewart, 2024]). These factors point to an increased risk of bankruptcy which, in turn, points to increased pressures to commit fraudulent financial reporting. Managers also are facing pressure from lenders to meet loan covenants on debt while being required to make loan payments with increasing interest rates (Wallerstein, 2023). These conditions suggest that companies relying upon debt financing may have limited funding options if they do not also show strong operating performance.

Economic Slowdown

Inflation and high interest rates reflect “the biggest risks to economic stability in 2024 ... inflation and rising rates have not yet dragged down the U.S. economy, but there are warning signs that it could be slowing in the last innings of the year” (Duggan, 2024). The U.S. recently experienced its worst inflation in 40 years. Europe has experienced similar inflationary woes (Frankl, 2024). China’s economy is slowing down, with Moody’s downgrading China’s 2024 credit rating outlook to negative in late 2023 (Smith, 2023). These signals of recession also suggest an increased likelihood of fraudulent financial reporting. The “M-score,” an indicator of increased likelihood of earnings manipulation, has historically increased significantly before recessions (Zumbrun, 2023), suggesting the current indicators of recession provide a more conducive setting for fraudulent financial reporting to occur.

Declining economic conditions also suggest implications for auditors. There has been an increase in the rate of going concern opinions since 2020 (Audit Analytics, 2023a). Similarly, there was a large spike in financial statement restatements in 2021 due to SPAC issues (289 percent increase) following years of declining restatement rates (Audit Analytics, 2023d). Further, the number of whistleblower reports to the SEC has nearly tripled from FY2020 to FY2023 (SEC, 2023). These factors suggest auditors should assume heightened fraudulent financial reporting risks in the current economic environment (see discussion of audit firm issues below).

International Turmoil

In June 2023, the World Economic Forum surveyed chief risk officers and found that 86 percent of respondents selected macroeconomic indicators as an area most likely to severely impact the respondents’ organizations by year-end 2023, 50 percent selected armed conflict, and 36 percent selected elections and changes in political leadership (World Economic Forum, 2023). The existing turmoil in Europe, the Middle East, and Asia all create risks for companies. Specifically, war between Russia and Ukraine, war in the Middle East, and the continued degradation of the relationship between China and Taiwan (that may ultimately lead to war) all threaten geopolitical stability. These concerns suggest increased risks for

organizations in areas such as supply chain disruption, currency fluctuations, international tensions, and governmental restrictions or sanctions on trade to certain areas (World Economic Forum, 2023). These risk areas can add another layer of pressure on managers, thereby increasing the risk of fraudulent financial reporting.

Client Conditions

Changes in client conditions also appear to provide a more favorable environment for fraudulent financial reporting. These changing client conditions could provide increased opportunity for management to commit fraudulent financial reporting, as well as new settings in which individuals might be able to better rationalize unethical behavior. Specifically, changes in organizational culture due to remote work, a talent drain in accounting, and less effective internal controls have all contributed to an environment conducive to potential fraudulent financial reporting.

Remote Work

Jump started by the COVID-19 pandemic, remote work has expanded greatly in recent years (see Barnes, Hermanson, Knight, and Simmons, 2024). Companies have been forced to adapt to changing conditions and a remote workforce that has changed the nature of management oversight and internal control. Many of the changes that occurred during the pandemic continue to affect operations today. Remote work and increased reliance on digital forms of evidence may create more opportunities for fraudulent financial reporting to occur. The increased use of PDFs and remote work may give client personnel an easier outlet to perpetrate fraudulent financial reporting (capability) by creating fictitious or manipulated documents, adding fabricated authorizations or documentation after creating falsified transactions, or engaging in a variety of other creative opportunities using electronic documentation. These digital forms of evidence also decrease the likelihood that auditors may catch fraudulent financial reporting, as digital documentation may be easier to manipulate without detection (see discussion of auditor issues below). We call for research on these issues to better understand the relation between remote work and the risk of fraudulent financial reporting.

Talent Drain

For corporate accounting positions, there is a limited pool of accounting professionals with the appropriate skill level required (AICPA, 2023; Foley, 2024). Many companies are struggling to fill accounting positions with qualified professionals. Some professionals did not return to work after COVID-19 for a variety of reasons, including retirement. Others require higher pay, remote work, improved work-life balance, or other concessions that companies may not be willing or able to provide. With this shortage of accounting professionals, companies are forced to choose between using underqualified people to fill certain accounting functions or remaining understaffed with overworked accounting employees. Both of these conditions create a situation where internal control and accounting procedures may be overlooked by overworked employees and/or performed incorrectly by underqualified employees.

Reduced Control Effectiveness

Related to the accounting talent drain, many public companies have material internal control weaknesses related to a lack of qualified accountants (Maurer, 2023a). Accounting personnel resources were identified in 67.6 percent of adverse management report disclosures related to internal controls over financial reporting (“ICFR”), and segregation of duties was cited in 57.8 percent of adverse management report disclosures (Audit Analytics, 2023c). Although not publicly disclosed, privately held companies likely also face these same internal control deficiencies, creating settings across many organizations that could allow greater opportunity for fraudulent financial reporting to occur without being caught.

The lack of personnel is not the only factor driving problems with internal controls. The control environment at many companies has continued to weaken since the COVID-19 pandemic (Audit Analytics, 2023c), likely attributable to the related transition to remote work. As companies abruptly shifted from in-person to remote work environments, strong controls that may have been in place, particularly those related to physical security, became difficult to enforce as people started working from home and using their home internet to download, analyze, and transmit company data, conduct company meetings online, and perform other potentially unsecured or unencrypted functions. Failures in internal controls are evidenced by a 21 percent increase in adverse ICFR audit opinions from 2021 to 2022. Interestingly, 54.5 percent of the adverse ICFR audit opinions identified IT issues as a contributing factor, representing the first time in five years that IT has been cited as the primary cause of adverse opinions. This increase is likely due to IT issues associated with converting company operations from in-person to remote work (Audit Analytics, 2023c). Thus, remote work and a lack of accounting

talent appear to be driving a related decline in the quality of internal controls, resulting in a likely increase in the potential for fraudulent financial reporting.

Audit Firm Conditions

Audit firms also are facing challenges related to the shortage of accountants, retaining quality professionals, and working in a remote environment. These challenges, in turn, are causing concern about the level of audit quality firms can provide in this new era of accounting.²

Talent Drain

The shortage of accounting professionals has resulted in new initiatives from accounting firms, universities, and accounting organizations. The AICPA formed an advisory group during 2023 to address this issue (Waggoner, 2023), with recommendations released in 2024 (National Pipeline Advisory Group, 2024). In 2021 and 2022 alone, over 300,000 accountants have left accounting practice (Mutoh, 2023; Ellis, 2022).

College enrollments in accounting also are on the decline. For instance, since 2018, the University of Maryland's number of accounting majors has dropped by 30 percent, and Florida Atlantic University (FAU) experienced a 50 percent decline in its undergraduate and graduate accounting programs since 2017 (Ellis and Overberg, 2023). Another study found recent 20 percent declines in accounting enrollments to be typical (J. Boyle, Marcy, D. Boyle, and Hermanson, 2024), putting stress on audit firms as they seek qualified new entrants. Further, research finds that audit firms' efforts to expand their hiring to non-target schools and less qualified students is associated with lower audit quality (Ahn, R. Hoitash, U. Hoitash, and Krause, 2024).

Working Conditions

The considerable increase in accountants leaving the profession, enhanced by the declining enrollments in accounting programs, is significantly impacting those professionals who have chosen to remain in the profession. Although busy season has historically been categorized by long and demanding hours and high turnover, the current working conditions in public accounting are increasingly difficult due to the shortage of professionals and low pay compared to fields such as technology and data science (Mutoh, 2023). Audit professionals are often putting in so many hours that they are working past the point at which auditors believe audit quality declines (Persellin, Schmidt, Vandervelde, and Wilkins, 2019).

As more people leave the profession and the supply of incoming accountants dwindles, there is increased pressure on existing audit staff to complete the audit work. This pressure, in turn, results in a greater number of auditors who are looking to leave the field in the near term, causing audit quality to potentially suffer even more (Brown, Hermanson, Higgs, Jenkins, Nolder, Schaefer, and Smith, 2020). With the increased pressure to complete audits on time with fewer staff, auditors are challenged to balance efficiency and effectiveness, potentially resulting in the risk auditors may rush through the audit or cut corners without properly analyzing evidence. Such behavior increases the risk that audit procedures may not uncover fraudulent financial reporting. It also is possible that greater use of AI and data analytics may help to mitigate some of these challenges.

Remote Auditing

Changes in firms' audit approach and the prevalence of remote work are also contributing to the likelihood that fraudulent financial reporting might go undetected during an audit (see Barnes et al. (2024) for discussion of remote work and auditor socialization, auditor burnout, and audit quality). Since COVID-19, remote work has remained quite common. The pivot required by accounting firms during the pandemic opened firms up to the idea that audits could be conducted remotely without a physical presence at client locations (Ovaska and Murphy, 2022). Many firms have continued performing remote or hybrid audits to some degree since the pandemic. There are several potential issues that arise from remote audit work.

The lack of physical presence at the client site severely limits direct auditor interactions with client employees (Barnes and Hermanson, 2023; Hermanson and Wolfe, 2024). Historically, auditors have obtained information through meetings and direct conversations with employees, especially those outside of accounting. Auditors were able to hold or even overhear client conversations that could provide insight into a variety of areas of the business that could potentially impact the

² One factor possibly offsetting these largely negative developments is potential use of artificial intelligence (AI) and data analytics in audits to better detect fraud (see Fotoh and Lorentzon, 2023).

financial statements (e.g., discussions with the shipping department or sales team about potential revenue recognition or inventory issues, conversations with office assistants, overhearing employees talk about product issues, etc.). Many auditors are now limited to interactions with clients through online meetings, phone calls, and e-mails.

Additionally, during remote interviews and discussions with management (e.g., fraud-related interviews), auditors may have difficulty reading non-verbal cues during conversations. Barnes and Hermanson (2023) find that interviews relating to potential fraud are not perceived by auditors to be as effective virtually due to the difficulties in assessing non-verbal cues. In addition, remote work also makes building relationships with client personnel more difficult, meaning that even if auditors were able to observe physical cues indicative of deceit, they might not recognize those cues as being different from the interviewee's normal conversation style or traits.

In addition, we also have concerns about four other aspects of remote auditing, and we encourage research to extend our anecdotal information about the following issues:

1. When auditors are not on location at the client, auditors no longer see original physical documents. Instead, auditors are placing increased reliance upon electronic data files (e.g., PDFs) and electronic data transactions. As a result, files may not be adequately tested or authenticated, and PDFs could be manipulated (e.g., modified and rescanned to cover up any manipulations).
2. Remote auditing also means that walkthroughs of internal controls may be limited to one-time video observations, and key red flags may be missed. The auditor's understanding of internal control (and potentially the testing of the design of internal control) could be greatly hindered by the remote audit setting.
3. Auditors working remotely may not see how the company is performing, the "business" of operations (e.g., ability to meet current demand), or the day-to-day business concerns of the entity. This lack of operational awareness could result in the auditor's failure to properly identify inherent risks and fraudulent financial reporting risks related to the organization.
4. Some auditors are opting to perform inventory observations remotely using drone and video technology, which may not allow the auditor to get a true feel for the warehouse size and capacity (i.e., whether reported inventory could even be stored there), whether boxes of inventory contain actual inventory in the stated quantities, and whether items are obsolete or damaged.

Each of these issues could serve to reduce auditors' ability to detect fraudulent financial reporting. We also acknowledge that greater auditor use of data analytics and new technology remotely may enhance audit efficiency and detection of misstatements or fraudulent financial reporting risks that would not be found in other ways.

Current Audit Quality Concerns

The challenges for audit firms discussed above (reduction of available talent and working conditions, coupled with remote auditing; items 3A through 3C) suggest that auditors face increased risks of audit failure. Auditors may fail to identify material misstatements either due to a lack of time or understanding. Consistent with this increased risk, research suggests audit quality decreased during COVID-19 (Morris, R. Hoitash, and U. Hoitash, 2023; Barnes et al., 2024). PCAOB inspections also suggest decreased audit quality, as the inspection process has identified an increased number of audit deficiencies (e.g., PCAOB, 2023a; PCAOB, 2024).

Experimental studies suggest that auditors may be penalized by supervisors through negative performance ratings if they are skeptical in an audit area, but no related misstatement is found (Brazel, Gimbar, Maksymov, and Schaefer, 2019; Brazel, Jackson, Schaefer, and Stewart, 2016). If audit staff believe that being skeptical could result in a negative review, and these same staff are already overburdened and overwhelmed, auditors are much less likely to maintain a questioning mindset for fear of wasting time and effort. This reduction in professional skepticism increases the opportunity for fraudulent financial reporting to go undetected by the auditor.

These audit quality concerns are compounded by the inability (or unwillingness) of firms to increase audit fees and/or incur more hours during the year-end audit. While total audit fees are up, audit fees as a percentage of client revenue are down from 2020–2022 and are at the lowest level since 2014 (Audit Analytics, 2023b). Because of the lower profitability of audit engagements and the inability to find sufficient staff at affordable prices, many firms have implemented outsourcing programs to capitalize on cheaper labor in such places as India, which may also reduce audit quality (Agrawal, 2024).

In addition, even though advisory services for most firms declined after Sarbanes-Oxley, these services have rebounded robustly and have become the service line with the largest growth in public accounting in 2023 (Hood, 2024). This change in firms' focus has increased the potential for reductions in audit quality simply due to the changes in firm tone at the top and diminishing oversight (e.g., Hermanson, 2009). As a result, the PCAOB announced annual inspections for larger firms that are part of a global network would now include a review of firm culture and the impact on audit quality as part of the quality control review of these firms (PCAOB, 2023b). The SEC has also indicated an increased focus on audit firm culture. Paul Munter, SEC Chief Accountant, notes that a series of recent enforcement actions against firms is "troubling, and we thought it was an appropriate time to reinforce messaging about the importance of firm culture" (Maurer, 2023b).

Combined Effects on the Fraud Diamond Elements

The discussion above asserts that economic/global, client, and audit firm conditions have created an environment of increased pressure and opportunity to commit fraudulent financial reporting. In such an environment, highly capable managers are well positioned to exploit such a situation. Further, managers under heavy pressure can more easily rationalize unethical behavior. There also are significant concerns about audit quality, which can increase the opportunity for fraudulent financial reporting to go undetected.

Implications

The issues discussed above indicate that the heightened risk of fraudulent financial reporting requires additional efforts by accountants and auditors. We discuss these implications for both groups below.

Implications for Accountants

The decline in economic and global conditions has increased pressure on companies to meet certain expectations from investors, lenders, owners, and others. This pressure typically falls most heavily on those in accounting to find ways to improve the bottom line, including manipulation of financial results. Along with the C-suite, accountants are the individuals most capable of committing and hiding fraudulent financial reporting. This increased pressure on those with the capability to commit fraudulent financial reporting is combined with increased opportunities for fraudulent financial reporting, as recent changes in the corporate workplace have potentially reduced the effectiveness of internal controls through increased remote work and a limited pool of accounting talent.

Accountants should be aware of the increased pressures and opportunities to commit fraudulent financial reporting and work within their organizations to help minimize these specific components of the fraud diamond. Accountants in leadership positions can set the tone for employees who report to them that accurate financial reporting is management's responsibility to owners and lenders, regardless of any expectations of what the bottom line should look like. Fraudulent financial reporting is a short-term fix to a longer-term problem. Even if a company can manipulate financial information to look better to users of the financial statements, fraudulent financial reporting is rarely a one-time event (e.g., Beasley, Carcello, Hermanson, and Neal, 2010; Grandstaff and Solsma, 2021). The underlying problem still exists. Past fraudulent financial reporting will most likely have to continue in order to maintain that reported level of performance. Clearly the company is better off facing the issue without the increased pressure of covering up fraudulent financial reporting both now and in the future.

In addition to minimizing the pressure component of the fraud diamond, accountants can help to reduce opportunities to commit fraudulent financial reporting. Management should be continuously monitoring internal controls and assessing risks to the organization. For many organizations, some form of remote work is here to stay, and an organization's internal controls must be reassessed and modified, not simply adapted, to fit the entity's new work environment. A complete overhaul of internal control is likely not necessary, but management must ensure that the controls fit the actual processes and procedures being performed across the organization.

Many have offered suggestions for maintaining or improving internal control in a remote work environment. For example, Landry and Stone (2020) offer suggestions to bolster the control environment with consistent communication, target risk assessment efforts to unique remote work risks, and enhance control activities, such as those related to payment processing, digital signoffs, and timely review. Likewise, Phillips (2021) discusses how to maintain accounting controls in a remote environment, focusing on segregation of duties, authorizations and approvals, and physical and IT security. The key is to recognize the new reality of remote or hybrid work and to match internal controls over financial reporting to this new setting.

Additionally, tone at the top is a vital component of effective internal controls. The importance of continuously executing controls properly should be a consistent message from upper management. As members of management and the individuals

often responsible for the execution of key internal controls over financial reporting, accountants are in an important position to help minimize opportunities for fraudulent financial reporting.

Implications for External Auditors

External auditors must consider that a new wave of fraudulent financial reporting cases could come in a different form than the wave in the early 2000s. While auditors are now required to hold fraud brainstorming sessions to assess fraudulent financial reporting risk for each audit engagement, auditing standards only specifically require auditors to consider management override of controls (PCAOB AS 2110.52; AU-C Section 240.31) and revenue recognition (PCAOB AS 2110.68; AU-C Section 240.26) as fraudulent financial reporting risks in every audit. To adequately consider fraudulent financial reporting risks, we believe that these brainstorming meetings also should consider factors including deteriorating economic conditions, global instability, remote work environments, and insufficient accounting talent. These discussions should consider how each of these factors might prompt or allow personnel to perpetrate fraudulent financial reporting. Auditors should then develop audit procedures that directly respond to those risk areas. The typical auditor's fraudulent financial reporting risk responses of journal entry testing, increased revenue testing, and fraud interviews may not be sufficient to address current fraudulent financial reporting risks.

Additionally, auditors must be cognizant of the effects that shortage of available accounting talent, current working conditions, and remote auditing have on audits and the likelihood of catching fraudulent financial reporting. The staffing shortage and difficult working conditions could result in the staff auditors hurrying through procedures, being less diligent, or simply failing to understand the tasks at hand. Such behavior may not be discovered if the audit staff are working remotely, out of the view of supervisors.

Although profitability is important for audit firms, supervisors must ensure staff are not overly pressured to meet time budgets at the expense of audit quality. Managers and partners should not only emphasize increased professional skepticism throughout each audit but also should ensure staff and seniors understand what that emphasis entails, preferably leading by example. Auditors should exercise greater skepticism when conducting interviews, performing inventory observations, and observing internal control procedures using video calls. Additionally, auditors need to ensure that electronic data files are reliable evidence, including testing of the electronic files for creation dates and any modifications made after creation.

Because of changes in underlying economic and client conditions, fraudulent financial reporting risk appears to be higher than in the past. Companies appear to have greater opportunities to perpetrate fraudulent financial reporting, and auditors are responsible for assessing and responding to that increased risk. While accountants can work to decrease this risk, auditors must work to improve audit quality and increase the likelihood that material fraudulent financial reporting cases will be caught.

Conclusion

Deterioration in economic/global, client, and audit firm conditions seems to have increased the risk of fraudulent financial reporting cases. However, we believe that awareness of these conditions can help to mitigate fraudulent financial reporting risk. Accountants working in corporations are in a unique situation, as they typically have the capability to commit fraudulent financial reporting, but also are in positions to influence (and hopefully reduce) the opportunities and pressures necessary for fraudulent financial reporting to occur. Auditors should respond to these heightened fraudulent financial reporting risks with audit procedures designed to directly address the types of frauds that might occur in the current business and economic environment.

Interested readers also may consult Boyle and Hermanson (2024), who offer a Fraud Prevention Pyramid designed to help accountants further develop their defenses against fraud, including fraudulent financial reporting. While the likelihood of fraudulent financial reporting appears to have significantly increased, accountants and auditors who have thoroughly considered and addressed these new risks have an opportunity to mitigate the next wave of fraudulent financial reporting cases.

References

- Agrawal, A. 2024. Navigating quality challenges of outsourced talent: Causes and strategies for improvement. *Insights: Expert Advice* (February 28). <https://www.june15consulting.com/post/navigating-quality-challenges-of-outsourced-talent-causes-and-strategies-for-improvement>
- Ahn, J., R. Hoitash, U. Hoitash, and E. Krause. 2024. Labor supply drought: The case of accounting talent shortage and audit outcomes. Working paper. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4792026
- Association of International Certified Professional Accountants (AICPA). 2023. *2023 Trends: A Report on Accounting Education, the CPA Exam, and Public Accounting Firms' Hiring of Recent Graduates*. Durham, NC: AICPA. <https://www.aicpa-cima.com/professional-insights/download/2023-trends-report>
- Audit Analytics. 2023a. *Going Concerns: A 20-Year Review*. Sutton, MA: Audit Analytics. https://auditanalytics.com/doc/2023_Going_Concerns_Report.pdf?pi_content=135862000986e65da6c38e3d44cc5bcbadc8e32dffe8de4a466822f2193f26aa
- Audit Analytics. 2023b. *20-Year Review of Audit Fee Trends*. Sutton, MA: Audit Analytics. https://www.auditanalytics.com/doc/2023_Audit_Fees_Report.pdf
- Audit Analytics. 2023c. *SOX 404 Disclosures: A 19-Year Review*. Sutton, MA: Audit Analytics. https://www.auditanalytics.com/doc/SOX_404_Disclosures_A_Nineteen-Year_Review.pdf
- Audit Analytics. 2023d. *Financial Restatements: A 20-Year Review*. Sutton, MA: Audit Analytics. <https://www.ideagen.com/thought-leadership/whitepapers/2023-restatements-report>
- Barnes, G. R., and D. R. Hermanson. 2023. Fraud brainstorming sessions and interviews in a remote world: Initial evidence. *Journal of Forensic and Investigative Accounting* 15(2): 248–260.
- Barnes, G. R., D. R. Hermanson, M. Knight, and V. Simmons. 2024. How remote work is affecting the new generation of auditors and audit quality: Recent research and its implications. *Journal of Forensic and Investigative Accounting* (Forthcoming).
- Beasley, M. S., J. V. Carcello, D. R. Hermanson, and T. L. Neal. 2010. *Fraudulent Financial Reporting: 1998–2007, An Analysis of U.S. Public Companies*. Durham, NC: Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- Boyle, D. M., and D. R. Hermanson. 2024. The Fraud Prevention Pyramid: Protecting yourself from fraud. *Strategic Finance* (March). <https://www.sfmagazine.com/articles/2024/march/the-fraud-prevention-pyramid>
- Boyle, J. F., A. Marcy, D. M. Boyle, and D. R. Hermanson. 2024. Accounting chairs' perceptions of current challenges. *Issues in Accounting Education* (Forthcoming).
- Brazel, J. F., C. Gimbar, E. M. Maksymov, and T. J. Schaefer. 2019. The outcome effect and professional skepticism: A replication and a failed attempt at mitigation. *Behavioral Research in Accounting* 31(2): 135–143.
- Brazel, J. F., S. B. Jackson, T. J. Schaefer, and B. W. Stewart. 2016. The outcome effect and professional skepticism. *The Accounting Review* 91(6): 1577–1599.
- Brown, V. L., D. R. Hermanson, J. L. Higgs, J. G. Jenkins, C. Nolder, T. J. Schaefer, and K. W. Smith. 2020. Comments of the Auditing Standards Committee of the Auditing Section of the American Accounting Association on the concept release, Potential approach to revisions to PCAOB quality control standards. *Current Issues in Auditing* 14(2): C1–C12.
- Clikeman, P. M. 2019. *Called to Account: Financial Frauds that Shaped the Accounting Profession*. 3rd Edition. New York, NY: Routledge.
- Duggan, W., 2024. Recession 2024: What to watch and how to prepare. *U.S. News and World Report* (September 11). <https://money.usnews.com/investing/articles/recession-2024-what-to-watch-how-to-prepare>
- Ellis, L. 2022. Why so many accountants are quitting. *The Wall Street Journal* (December 28). <https://www.wsj.com/articles/why-so-many-accountants-are-quitting-11672236016>

- Ellis, L., and P. Overberg. 2023. Why no one's going into accounting. *The Wall Street Journal* (October 6). <https://www.wsj.com/lifestyle/careers/accounting-salary-cpa-shortage-dec2caa2>
- Foley, S. 2024. Dire shortage of accountants prompts calls for shake-up. *Financial Times* (January 4). <https://www.ft.com/content/4f881a21-a3c2-46ed-a038-fbf4a797e823>
- Fotoh, L. E., and J. I. Lorentzon. 2023. Audit digitalization and its consequences on the audit expectation gap: A critical perspective. *Accounting Horizons* 37(1): 43–69.
- Frankl, E. 2024. U.K. economy faces mounting uncertainties in 2024. *The Wall Street Journal* (January 4). <https://www.wsj.com/economy/global/u-k-economy-faces-mounting-uncertainties-in-2024-35bd2b72>
- Grandstaff, J. L., and L. L. Solsma. 2021. Financial statement fraud: A review from the era surrounding the financial crisis. *Journal of Forensic and Investigative Accounting* 13(3): 421–437.
- Hermanson, D. R. 2009. How consulting services could kill private-sector auditing. *The CPA Journal* 79(1): 6–9.
- Hermanson, D. R., and D. T. Wolfe. 2024. The fraud diamond: A 20-year retrospective. *The CPA Journal* 94(3/4): 16–21.
- Hood, D. 2024. Inside the top 100 firms for 2024. *Accounting Today* (April 5). <https://www.accountingtoday.com/list/inside-the-top-100-firms-in-accounting-for-2024>
- Landry, K., and D. Stone. 2020. *How Does Your Control Environment Look in a Remote World?* Bangor, ME: Berry Dunn. <https://www.berrydunn.com/news-detail/how-does-your-control-environment-look-in-a-remote-world>
- Maurer, M. 2023a. The accountant shortage is showing up in financial statements. *The Wall Street Journal* (July 11). <https://www.wsj.com/articles/the-accountant-shortage-is-showing-up-in-financial-statements-b14a6b94>
- Maurer, M. 2023b. SEC's chief accountant on what worries him. *The Wall Street Journal* (December 5). <https://www.wsj.com/articles/secs-chief-accountant-on-what-worries-him-82f63df7>
- Morris, L., R. Hoitash, and U. Hoitash. 2023. The effectiveness and efficiency of auditors' remote work during COVID-19. *Auditing: A Journal of Practice and Theory* 42(4): 223–245.
- Mutoh, A. 2023. Why graduates aren't hot on accounting careers: Low starting pay, onerous testing. *The Wall Street Journal* (May 12). <https://www.wsj.com/articles/why-graduates-arent-hot-on-accounting-careers-low-starting-pay-onerous-testing-c05bf267>
- National Pipeline Advisory Group. 2024. *Accounting Talent Strategy Report*. Durham, NC: Association of International Certified Professional Accountants. <https://www.accountingpipeline.org/wp-content/uploads/2024/08/NPAG-Strategy-Report.pdf>
- Ovaska, S., and M. Murphy. 2022. A needed push into remote auditing. *Journal of Accountancy* (May 26). <https://www.journalofaccountancy.com/news/2022/may/needed-push-into-remote-auditing.html>
- Persellin, J. S., J. J. Schmidt, S. D. Vandervelde, and M. S. Wilkins. 2019. Auditor perceptions of audit workloads, audit quality, and job satisfaction. *Accounting Horizons* 33(4): 95–117.
- Phillips, S. 2021. *Maintaining Internal Controls for Accounting in a Remote Work Environment*. Sarasota, FL: Kerkering Barberio. <https://www.kbgrp.com/audit-advisory-and-assurance/maintaining-internal-controls-for-accounting-in-a-remote-work-environment.html>
- Public Company Accounting Oversight Board (PCAOB). 2023a. *Spotlight: Staff Update and Preview of 2022 Inspection Observations*. Washington, DC: PCAOB. https://assets.pcaobus.org/pcaob-dev/docs/default-source/documents/spotlight-staff-preview-2022-inspection-observations.pdf?sfvrsn=1b116d49_4
- Public Company Accounting Oversight Board (PCAOB). 2023b. *Staff Priorities for 2024 Inspections and Interactions with Audit Committees*. Washington, DC: PCAOB. https://assets.pcaobus.org/pcaob-dev/docs/default-source/documents/2024-priorities-spotlight.pdf?sfvrsn=7c595fae_2
- Public Company Accounting Oversight Board (PCAOB). 2024. *Spotlight: Staff Update on 2023 Inspection Activities*. Washington, DC: PCAOB. https://assets.pcaobus.org/pcaob-dev/docs/default-source/documents/staff-update-2023-inspection-activities-spotlight.pdf?sfvrsn=2afb0f25_2

- Securities Exchange Commission (SEC). 2023. *Securities and Exchange Commission Office of the Whistleblower Annual Report to Congress for Fiscal Year 2023*. Washington, DC: SEC. https://www.sec.gov/files/2023_ow_ar.pdf
- Smith, G. 2023. FirstFT: Moody's cuts China's credit rating outlook. *Financial Times* (December 5). <https://www.ft.com/content/d70eb2a4-d836-462f-90d3-65560c8de243>
- Stewart, E. 2024. The fishy death of Red Lobster. *Business Insider* (May 1). <https://www.businessinsider.com/red-lobster-endless-shrimp-bankruptcy-private-equity-debt-real-estate-2024-5>
- Waggoner, M. 2023. Accounting talent shortage is focus of new advisory group. *Journal of Accountancy* (July 31). <https://www.journalofaccountancy.com/news/2023/jul/accounting-talent-shortage-is-focus-of-new-advisory-group.html>
- Wallerstein, E. 2023. Rising loan costs are hurting riskier companies. *The Wall Street Journal* (September 27). <https://www.wsj.com/finance/rising-loan-costs-are-hurting-riskier-companies-3e65f818>
- Wolfe, D. T., and D. R. Hermanson. 2004. The fraud diamond: Considering the four elements of fraud. *The CPA Journal* 74(12): 38–42.
- World Economic Forum. 2023. *Chief Risk Officers Outlook*. Geneva: World Economic Forum. https://www3.weforum.org/docs/WEF_Chief_RiskOfficers_Outlook_2023.pdf
- Zumbrun, J. 2023. Accounting-fraud indicator signals coming economic trouble. *The Wall Street Journal* (March 24). <https://www.wsj.com/articles/accounting-fraud-indicator-signals-coming-economic-trouble-506568a0>