How Auditees Experience Data Analytics Driven Audits: Constructing Audit Expectations through the Idealized Professional

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ABSTRACT

The introduction of artificial intelligence-based data analytics hold the potential to radically alter the audit process by allowing firms to disseminate centralized data analytic expertise to lower level auditors and use novice auditors guided by technology to execute audits at significant cost savings. Despite the anticipated benefits public accounting firms may capture from leveraging data analytics throughout the audit process, firms have been reluctant to deploy data analytics into the audit process in the face of regulatory and legal pressures, limiting opportunities to study the impact of data analytics implementation. We examine the impact of data analytic driven audits from the eyes of the auditee by examining healthcare fraud audits under a government mandate. The government program mandates data analytic-driven audits with the intent of driving lower costs audits that are more effective. However, novice auditors guided by artificial intelligence-based data analytics appear to construct a very different audit environment. We find that auditees use discourses of the profession to compare their healthcare fraud audit experiences to their expectations attributable to traditional audits and auditors. In making such comparisons, auditees draw upon prior expectations of what an audit entails and respond to a breach of expectations by delegitimizing their experience with healthcare fraud auditors. They do so by identifying healthcare fraud auditors' lack of expertise and credentials, misapplication of judgement and absence of public interest orientation. We observe how this discourse suggests that auditees are socialized by prior audit experiences to expect auditors to adhere to certain professional criteria, follow particular processes, and respect particular professional boundaries. We offer caution for public accounting firms against leveraging nonprofessionals to conduct data analytic-driven audits at a time when the public accounting profession is already facing scrutiny for de-professonalizing trends.

Key Words: auditees, data analytics, healthcare, fraud audit, professionalism

1. Introduction

Advances in technology have enabled compilation of new digital records (Power, 2021) and larger data sets at an exponentially increasing rate, creating opportunities to develop and apply new analysis to this data (Brown-Liburd, Issa, & Lombardi, 2015). The expansion of technology enabled tools, such as data analytics, are viewed as a necessity and the future of auditing, yet firms have expressed concern regarding effective implementation of these tools (Eilifsen, Kinserdal, Messier, & McKee, 2020). Thus, there are limited opportunities to examine the effects of data analytics on the audit process. Despite the potential benefits of these technology enabled tools, several open questions remain regarding the use of these tools in an audit setting (Dowling & Leech, 2014), including when the use of technology provides the most effective solution, and dilemmas associated with displacing knowledge workers, e.g., traditional financial statement auditors with paraprofessionals (Sutton, Arnold, & Holt, 2018). While much of the extant audit literature focuses on financial statement audits carried out by practitioners in public accounting (Cooper & Robson, 2006; Pentland, 2000), audit permeates many areas of contemporary society, with the application of audit terminology and methods extending well beyond the field of "traditional" financial statement audit (Power, 1997, 2021) to "nontraditional" fields.[1] These non-traditional audit environments provide opportunities to understand how alternative constructions of audit may shed light on the reasonableness of underlying premises accepted as appropriate within traditional audits. We turn to such an alternative construction of audit—government

[1] We use the term "traditional" audits and auditors in reference to financial statement audits conducted by certified/chartered accounting practitioners. We refer to "non-traditional" audits as those conducted in other potential audit fields by practitioners that are not necessarily certified/chartered accountants. For instance, nontraditional audits conducted in the public sector represent an audit context about which we still know relatively little, particularly in the United States (U.S.).

mandated healthcare audits—to gain an understanding of how artificial intelligence-based data analytics are used to dictate audit performance in place of traditional auditor expertise.

U.S. legislation required the Center for Medicare and Medicaid Services (CMS) to design and implement a data analytic tool to identify high risk healthcare claims in an effort to prevent and reduce fraud, waste and abuse in the healthcare system. Subsequent to the data analytic tool identifying high risk claims, a contracted auditor conducts an audit of healthcare providers submitting the claims (i.e., a healthcare fraud audit).[2] The use of data analytics has been described in Reports to Congress as very successful, touting a large and increasing Return on Investment (DHHS, 2012, 2014, 2015). Thus, we began this study with the intent to examine effective implementation of data analytics into the audit process in a non-traditional audit setting.

To examine auditee experiences of nontraditional data analytic driven audits, we conducted semi-structured interviews with 36 participants employed by healthcare providers subject to audit under the CMS mandate (i.e., auditees). Interviewing auditees on their audit experiences allowed us to understand how auditees experience data analytic initiated audits. To better understand the nontraditional audit context and the auditors in this context, we also reviewed publicly available documents on healthcare fraud audits supplemented by non-publicly available government documents obtained via a series of Freedom of Information Act Requests.[3]

Subsequent to conducting an initial set of interviews, we identified a vastly different story than the success portrayed in reports to congress. Auditees highlighted that fraud was not being identified, rather auditees were incurring financial penalties that were ultimately significantly

[2] The contracted audit firms we study are referred to as Zone Program Integrity Contractors (ZPIC). The ZPIC firms contracted to conduct audits of high risk (i.e., potentially fraudulent) healthcare claims are referred to as auditors and /or the work performed is referred to as audits in both their statement of work with the CMS and by the healthcare providers subject to audit.

[3] The Freedom of Information Act provides that any person has the right to request access to federal government records or information except where protected by exemption within the act.

reduced through a lengthy appeals process. Auditees discussed audited organizations declaring bankruptcy as a result of the data analytic initiated audits despite later being absolved of most or all claims. These discussions caused us to re-evaluate the theoretical lens for this study, and to further examine the results reported to Congress and other publicly available documents. Consistent with themes of problematizing profitability highlighted in prior research (Lowe et al., 2020), through this process we identified that the ROI reported was based on *projected and actual* savings, as opposed to *only actual* savings (DHHS, 2012, 2014, 2015),[4] and that 80% of fines levied are ultimately not collected (OIG, 2017). Furthermore, when discussing the auditors conducting the data analytic initiated audits, auditees highlighted how their socialized expectations for an audit were violated, and in response, proceeded to delegitimize the auditors by highlighted how they failed to meet established criteria of professionals in the extant literature.

These preliminary findings caused us to re-focus our study on how technology can enable the use of novice auditors (i.e. paraprofessionals) and how these technology-enabled auditors reconstructed the audit process. A growing body of auditing literature suggests that Structured Audit Techniques are increasingly being used to guide novice professionals through processes they are not otherwise skilled at conducting (Dowling & Leech, 2014; Sutton et al., 2018), by reducing auditor judgment (Boland, Daugherty, & Dickins, 2019; Dowling, Knechel, & Moroney, 2018; Khalifa, Sharma, Humphrey, & Robson, 2008). At the same time, these structured audit

[4] Four full years of Reports to Congress under the FPS show an increasing return on investment of 3.3 in 2012, 5.0 in 2013, 10.0 in 2014 and 11.5 in 2015 based on *actual and projected* fraud collections (DHHS 2012; DHHS 2014; DHHS 2015b; CMS 2015). Return on investment is calculated based on Total Estimated Savings (Actual Savings plus Projected Savings) divided by Total Estimated Costs of ZPIC activities and administration (Development Contractor Costs, Modeling Costs, Employee salaries and benefits, and Investigation costs) (DHHS 2012; DHHS 2014; DHHS 2015). However, calculating ROI using *only actual* frauds realized yields ROI of 0.51, 0.57, 0.88 and 1.08 for the same four years (CMS 2015). This distinction build upon prior research stating that profit measures are ambiguous (Robson, 1994c), performance measures (i.e., ROI) does not "…*represent* true performance … rather they refer to a series of articulations and interpretations made by the various users" (Dambrin & Robson, 2011, 430), and how "flawed approximations" of costs can become useable facts (Chua, 1995).

technologies provide novice auditors with a greater sense of personal expertise and higher confidence in audit performance (Dowling & Leech, 2014). Our study explores this phenomenon through a focus on how technology-enabled auditors can transform the audit process and the auditor-auditee relationship. The findings of our study reveal implications of utilizing paraprofessionals in place of professionals during the audit process and how auditees construct these paraprofessional auditors. Thus, this paper aims to examine how auditees construct audits by paraprofessionals guided by data analytics. Therefore, our overarching research question can be stated as follows: How do auditees construct audits conducted by paraprofessionals guided by data analytics?

While prior auditing research focuses on transformation of audit processes, auditor work and decision making, our analysis examines another critical aspect in the audit process that has received limited attention: the auditee (Daoust & Malsch, 2019, 2020). While prior audit research devotes considerable attention to the auditor (see (DeFond & Zhang, 2014; Hurtt, Brown-Liburd, Earley, & Krishnamoorthy, 2013; Nelson, 2009) for reviews), the experience of the auditee receives minimal attention (Gendron, Cooper, & Townley, 2007; Power, 2003). Auditees influence financial reporting outcomes (DeFond & Zhang, 2014) such as engaging in earnings management (Commerford, Hermanson, Houston, & Peters, 2016; Hirst, 1994), and by taking actions that impede the auditors ability to conduct an audit by requiring auditors to struggle, strategize, manipulate and negotiate with auditees that are neither cooperative nor docile (Daoust & Malsch, 2020; Guénin-Paracini, Malsch, & Paillé, 2014; Guénin-Paracini, Malsch, & Tremblay, 2015). Further, auditees can utilize tactics to favorably impact auditor decision making (Bame-Aldred & Kida, 2007; Bhattacharjee & Brown, 2018; Hackenbrack, 1992; Luippold, Kida, Piercey, & Smith, 2015; Wolfe, Mauldin, & Diaz, 2009). We propose that auditee experiences' inform us as to

various activities emerging under the category of audit and who is performing this work (Pentland, 2000). In line with calls for the exploration of variants of audit through inductive field based studies (Gendron & Spira, 2009; Malsch & Salterio, 2016; Power & Gendron, 2015) and the use of audit paraprofessionals guided by technology enabled tools (Sutton et al., 2018), we ask what we can learn about audits and auditors in our particular context and more globally from the experiences of auditees.

Our analysis reveals aspects of auditee experiences in audit contexts and the field of healthcare in particular, that inform us about perceptions of audits and auditor activities in this field and more broadly. Auditees draw upon their socialized experiences from prior audits and with auditors perceived as "legitimate" to construct their experiences undergoing data analytic driven healthcare fraud audits. Indeed, in making such comparisons, our analysis suggests that auditees have been socialized to expect an audit to be performed in certain ways during an "audit". When those socialized expectations are violated, as in the healthcare fraud audit context, auditees delegitimize their experience namely because such audits are performed in "non-professional" ways. For instance, auditees identify healthcare fraud auditors as lacking expertise and credentials, not applying professional judgement, and not operating in the public interest. In this way, it appears that auditees have socialized expectations not only for how audits are conducted but also for the auditors performing the audit. These expectations are linked to experiences undergoing traditional financial statement audit conducted by public accounting practitioners exhibiting what auditees perceive as appropriate professional criteria and employing appropriate audit techniques.

Our work makes several contributions to the literature. First, we explore the vacuum of research examining the auditee side of the audit relationship when new technologies are utilized

in the audit process.[5] As the accounting profession expresses interest in increasing the use of data analytics as part of the audit process (AICPA, 2017; Appelbaum, Kogan, & Vasarhelyi, 2017; Boland et al., 2019) and firms continue to invest heavily in analytics (Deloitte, 2016; EY, 2017; KPMG, 2016; PwC, 2017), this study highlights the importance of using professional, as compared to paraprofessional, auditors to audit anomalies identified by data analytics. We describe and interpret new accounting practices (Robson, Young, & Power, 2017), by contributing to prior awareness of limitations of using audit analytics (Arnold & Sutton, 1998; Brown-Liburd et al., 2015; No, Lee, Huang, & Li, 2019; Sutton et al., 2018). While auditee discourse focuses on violations of expectations by paraprofessionals around experiences undergoing healthcare fraud audits, these violations align with perspectives on de-professionalizing trends in traditional audit more globally (Dirsmith et al. 2015). Despite criticism over de-professionalizing trends of the public accounting profession (Dirsmith et al., 2015), traditional audits and practitioners seem to still retain an elite status and image of the "legitimate", or "proper", idealized professional. Thus, we offer caution against public accounting firms to use paraprofessionals, as auditees can identify when a non-professional is used, which may adversely impact perceptions of the public accounting profession.

Second, as contested as the notion of an audit professional and expectations for auditors may be, our analysis suggests that auditees are socialized to expect auditors of all types to adhere to certain professional criteria, to follow established processes and to respect particular professional boundaries. Extant research examines how public accounting trainees are socialized in different stages of their career (Anderson-Gough, Grey, & Robson, 1998, 2000, 2001, 2002,

[5] Several working papers examine other aspects of auditors use of analytics: (Austin, Carpenter, Christ, & Nielson, 2019; Barr-Pulliam, Brazel, McCallen, & Walker, 2020; Commerford, Dennis, Joe, & Wang, 2020; Emett, Kaplan, Mauldin, & Pickerd, 2019).

2005; Carter & Spence, 2014; Coffey, 1994; Covaleski, Dirsmith, Heian, & Samuel, 1998; Daoust & Malsch, 2019; Kornberger, Justesen, & Mouritsen, 2011; Pentland, 1993), how the auditee may socialize practitioners of public accounting (Daoust & Malsch, 2020; Guénin-Paracini et al., 2015), and how public accounting professionals may socialize the audit firm (Durocher, Bujaki, & Brouard, 2016). Yet the possibility that auditees undergo socialization in their experience of being audited, to our knowledge, has received less attention. This possibility suggests that auditees themselves, through a taken-for-granted notion of idealized audits and auditors, may be complicit in the creation of "professional myths" carried into nontraditional audit contexts in which they may not be warranted. The applicability of conventional markers such as professional "audits" and "auditors" derive from financial statement audit and their transferability to the public sector and the healthcare field remain important questions (Andon, Free, & O'Dwyer, 2015; Andon, Free, & Sivabalan, 2014). This follows on Radcliffe, Cooper and Robson (1994) who state: "the idea that auditors are professionals and that accountancy work is professionalized is not an immutable fact but open to dispute and contestation" (p. 606). On this theme, recent research questions what it means to be a professional from the perspective of auditors' "identity ranking", or how one is positioned or compared with others (Guo, 2018). Indeed, our work suggests that nontraditional auditors are not ranked or positioned by auditees as meeting professional ideals even when guided by data analytics. Overall, the discourse of auditees alludes to auditees developing expectations for what constitutes an audit and an audit professional that are violated in the experience of undergoing healthcare fraud audits.

2. Literature review

Audit contexts

Recent years have seen a rise in technology enabled tools including data analytics, machine learning and continuous monitoring (Sutton et al., 2018). The use of technology enabled tools are used by firms to signal a competitive advantage (Carson & Dowling, 2012), and promote effective and efficient audits (Bedard, Deis, Curtis, & Jenkins, 2008; Dowling, 2009). Yet, the use of use of analytics in the audit process remains uncommon. Barriers to widespread use of these technologies include not being proven as superior to traditional audit techniques, not being supported by firms and regulators (Eilifsen et al., 2020) and not effectively integrating new technologies with prior audit practices (Fischer, 1996).

Technology enabled tools can be used as an accounting technology to monitor economic agents across time and space (Ezzamel & Robson, 1995), such as coercing lower level auditors actions throughout the firm (Dowling & Leech, 2014), potentially without improving audit quality (Boland et al., 2019; Dowling et al., 2018). While these centralized technologies may disseminate centralized expertise and structure tasks for lower level decision makers (Boland et al., 2019; Dowling & Leech, 2014), these actions also encourage compliance with these tools and thus reduce lower level employees ability to exercise professional judgment. Thus, the use of these tools may cause re-construction of the audit field (Robson, Humphrey, Khalifa, & Jones, 2007), by shifting work from traditional auditors exercising professional judgment to paraprofessionals focusing on compliance with data analytic tools. Negative implications of this re-construction may entail auditors over-reliance on firm checklists (Asare & Wright, 2004; Boland et al., 2019) and technologies (Seow, 2011) and failure to consider factors not explicitly identified by these tools. Thus, auditors may over rely on the technology (Glover, Prawitt, & Spilker, 1997), and

insufficiently assess the conclusion reached by the technology. The long term implications of use of such technologies inhibits the development of auditors critical thinking skills and exercise of professional judgment (Arnold & Sutton, 1998; Boland et al., 2019; Sutton et al., 2018).

Audit partners have expressed concern with regulatory inspections becoming more rules based, and audit firms becoming more prescriptive in policies in response to regulatory oversight (Dowling et al., 2018). Auditors change their behavior in anticipation of a regulatory inspection (Stefaniak, Brandon, & Houston, 2017), and adopt strategies to comply with regulators inspections out of concern for enforcement penalties (Johnson, Keune, & Winchel, 2019). For example, in response to SOX organizations reacted defensively by increasing processes embracing a formal "box-checking exercise" (Power, 2021, 24). Yet, technology enabled tools can give comfort to regulators that compliance has been achieved (Power, 2009; Dowling & Leech, 2014.), even when audit quality has not improved.

Public Sector Audits

Applications of audit is a discursive practices reflecting institutional (e.g., regulatory, cultural and normative) and competitive changes in audit fields (Khalifa et al., 2008). Audit applications may extend beyond the traditional financial statement audit (Suddaby, Cooper, & Greenwood, 2007), that is embraced by many organizational agents (Power, 2021), such as into government settings. For instance, Chelimsky (1985) characterizes public sector audits as moving beyond verifying the financial statements to providing policy makers with normative opinions on programs or activities that ensure government programs achieve an intended outcome. As the need for accounting and budgeting in the public sector continues to expand (Edwards, Ezzamel, & Robson, 1999), governance of the public sector reflects an emphasis on leaner government and more efficient and effective management of government programs and public resources (Funnell

& Wade, 2012; Gendron et al., 2007). This has been linked to explosive growth in the use of audit as a control mechanism (Power, 1997) in studies of performance auditing (Funnell & Wade, 2012; Gendron, Cooper, & Townley, 2001; Gendron et al., 2007; Tillema & ter Bogt, 2010), efficiency auditing (Radcliffe, 1998, 1999, 2008), and value-for-money auditing (Power, 1999).

Little research touches on public sector audit in the U.S. (Free, Radcliffe, Spence, & Stein, 2020; Radcliffe, 1998) despite the fact that public sector audits are now an accepted, and expected, function of the state worldwide (Tillema & ter Bogt, 2010). Public sector audits report on the waste, inefficiency and potential abuse of public resources in a wide array of government practices and programs (Gendron et al., 2001; Power, 1997, 1999). With a focus on waste and abuse, public sector audits contain aspects of forensic audits concerned with applying an investigative mentality to uncovering instances of illegitimate or fraudulent conduct (Gray, 2008). They also contain judicial aspects where public sector audits uncover instances of failure to comply with rules and to sanction noncompliance (Carter et al. 2015). Gendron et al. (2007) suggest the need for more research on reactions to public sector audits, including the reactions of auditees. Through the context of a U.S. government audit mandate to investigate healthcare fraud, we study how auditees experience these nontraditional audits. This also necessitates an understanding of the auditors that perform such audits.

Audit socialization

Most audit research looks at audit through the lens of practitioners in public accounting (Daoust & Malsch, 2019, 2020). The conventional argument is that public accounting practitioners provide higher quality service, regardless of the context, owing to their procedural and methodological expertise alongside recognized and ingrained characteristics of the profession (Simnett, Vanstraelen, & Chua, 2009). Yet, what constitutes professional conduct may vary across

different domains (Robson, Willmott, Cooper, & Puxty, 1994). Some forms of audit, such as the public sector audit context (Radcliffe, 1998, 1999, 2008), illustrate a representation of certain audit concepts and practices applied by non-public accounting practitioners suggests a "family resemblance" (Pentland 2000, p. 307) to aspects of financial statement audit. However, non-public practitioners may acquire different procedural, ethical and behavioral education compared to what is provided to traditional public accountants employed by public accounting firms (Suddaby, Gendron, & Lam, 2009) and develop different embodiments of control, transparency and accountability (Christensen & Cornelissen, 2015; Dirsmith, 1986; Meyer, 1986). Indeed, nontraditional audit contexts may necessitate the mobilization of specialized expertise to collect, analyze and interpret evidence and communicate findings.

The performance of audits by nontraditional accounting practitioners may result in incorporating individuals of varying ethical standards to perform auditing services (Suddaby & Greenwood, 2001). Traditional public accountants are more committed to the ethics of their profession than those in nontraditional fields (Suddaby et al., 2009). This may be attributable to public accounting firms employing socialization processes to emphasize professional norms and values more than other organizations (Suddaby et al., 2009) as well as ensuring norms of the firm are aligned with the those of the profession (Scott, 1965; Wallace, 1995). Thus, traditional public accounting practitioners may gain increased exposure to ethical norms and standards as those are intertwined with the culture of public accounting firms (Grey, 1998).

Public accountants are socialized to portray a specific image and engage in appropriate behaviors to demonstrate their adherence to the norms of the firm and standards of the auditing profession (Anderson-Gough et al., 2000, 2001; Grey, 1994; Pentland, 1993). This image entails being visible (Kornberger et al., 2011), speaking the "right" language (Anderson-Gough et al.,

1998, 2000; Coffey, 1994; Covaleski et al., 1998; Grey, 1994, 1998; Pentland, 1993), networking (Anderson-Gough, Grey, & Robson, 2006), conveying respect for others via time management skills and prioritizing the client (Anderson-Gough et al., 2000, 2005). Displaying the appropriate behaviors is just as important as possessing technical knowledge (Grey, 1998) for being promoted within public accounting firms (Dirsmith & Covaleski, 1985). Learning to exhibit these behaviors is referred to as professional socialization (Dirsmith and Covaleski 1985; Covaleski et al. 1998; Pentland 1993; Anderson-Gough et al. 2000; Korngerger et al 2011). Public accountants are socialized by a variety of mechanisms within public accounting firms such as formal and informal mentoring; incentives, recognition and metrics; and human resource criteria (Covaleski et al., 1998). Non-public practitioners may not be exposed to these same procedural, ethical, and behavioral expectations in conducting nontraditional audit services and, thus, audits conducted by non-public practitioners may be performed and experienced in significantly different ways.

One way to understand audits is to examine the experiences and reactions of the individuals in organizations subject to audit - the auditees. In studying auditors in the field, it would seem difficult to ignore auditees, yet we know little about what auditees do when they have auditors on site (Daoust & Malsch, 2020; Guénin-Paracini et al., 2015). While not specifically focused on auditees, Guénin-Paracini et al. (2015) highlight what happens between public accountants performing financial statement audits and auditees "at the street level, behind the walls of the audited entity" (p. 204) in an ethnographic study of auditor independence. The authors find that auditors struggle, strategize, manipulate and negotiate with auditees who are not cooperative and docile, but rather are active in influencing the collection of audit evidence (Guénin-Paracini et al., 2015). Daoust and Malsch (2020) propose that auditees are not only active but also strategic in their participation in the audit, specifically when the auditees previously worked as auditors in

large public accounting firms. The authors show that auditees' influence on, and potential threat to the independence of, financial statement auditors stems from their knowledge of auditing techniques and on the relational aspects of the auditee's role in the development and training auditors receive "on-the-job" (Daoust & Malsch, 2020).

Although focused on the auditor, prior research on auditor-client negotiations demonstrates auditees ability to influence the auditor (Gibbins, Mccracken, & Salterio, 2005, 2007, 2010; Gibbins, Salterio, & Webb, 2001; McCracken, Salterio, & Schmidt, 2011; Salterio, 2012). Client actions can weaken auditors professional judgment, such as having the auditor identify more with the client (Bamber & Iyer, 2007; Bauer, 2015), and utilizing negotiation tactics such as concessions and trade-offs (Bame-Aldred & Kida, 2007; Sanchez, Agoglia, & Hatfield, 2007; Wolfe et al., 2009). Auditors with greater affinity for the auditee and facing pressure from the auditee propose lower audit adjustments (Koch & Salterio, 2017). Knowledge of an auditee's preferred positions results in an increased likelihood of consistent precedents being reported during national consultations (Salterio, 1996). Auditees receive more favorable audit opinions when they have an affiliated executive (Lennox, 2005) or attended the same university of their auditor (Guan, Su, Wu, & Yang, 2016). The overreliance on data analytics discussed above may reduce auditors ability to exercise professional judgment (Dowling & Leech, 2014), and thus make them less susceptible to client attempts to influence the audit outcome.

Taken together, these studies suggest that the experiences and tactics of auditees contribute to what public accountants do on financial statement audits, implying that auditees have agency over the way that financial statement auditors perform such audits (Anderson-Gough et al., 2000; Daoust & Malsch, 2020; Guénin-Paracini et al., 2015). At the same time, these studies also suggest that auditees expect public accountants to act in common ways, along with having expectations

about the practice of the financial statement audit itself. For instance, auditees expect auditors to be polite and responsive and to meet client deadlines by managing their time and prioritizing the client (Anderson-Gough et al., 2000). However, the expectations for nontraditional audits conducted in various contexts by non-public practitioners remain a largely open research question.

In certain nontraditional audit contexts, including in the public sector, expectations are not subject to independence arrangements and reflect incentive structures that may change the way that auditees themselves experience audits, not to mention the potential for auditees to influence the audit process. As such, we maintain that there is a significant gap in the auditing literature on understanding how nontraditional audits, alongside data analytic driven audits, are experienced by auditees. We highlight auditees' prior audit interactions to understand nontraditional audits performed by non-public practitioners where auditees experience a violation of established expectations. Ultimately, we problematize whether conventional expectations derived from financial statement audit are relevant markers for non-traditional audits (Gendron and Barrett 2004; Shafer and Gendron 2005; Barrett and Gendron 2006; Gendron et al. 2007; Malsch 2013; Andon et al. 2015). The public sector audit arena provides an opportunity to explore such concerns as well as highlight an important empirical context.

3. Research method

We adopted an inductive field study approach for this study. The use of inductive qualitative methods is preferable in examining nascent and unexplored phenomena (Glaser and Strauss 1967; Sutton et al. 2011; Power and Gendron 2015), including the conceptualization of the audit professional (Gendron & Barrett, 2004) and the development of audit expertise (Power, 2003). Our examination of auditees' experiences with nontraditional auditors conducting data analytic driven audits constitutes an example of such phenomena.

Field of investigation

Since the 1990s, the U.S. government considered the healthcare programs administered by the Centers for Medicare and Medicaid Services (CMS) within the Department of Health and Human Services (DHHS) at high risk for fraud, waste, abuse and mismanagement (DOJ and DHHS 1997).[6] In April 2010, CMS created the Center for Program Integrity (CPI) to protect the Medicare and Medicaid programs against losses from fraud, abuse and other improper payments and to improve the integrity of the healthcare system (CMS 2013).[7] The CPI was charged with using a data analytic tool to ensure the accuracy of payments made to healthcare service providers for services covered under the Medicare and Medicaid programs (CMS 2018a).[8] Under Section 4241 of the U.S. Small Business Jobs Act of 2010, the CPI implemented the Fraud Prevention System (FPS) to help identify high risk, potentially fraudulent Medicare claims.[9] Implemented on June 30, 2011 (DHHS 2012), the FPS captures and stores Medicare data and uses algorithms and

[6] Medicare is a government program that helps people aged 65 and older or disabled with medical costs. The Medicare program offers medical and health-related services to approximately 60 million Americans. Medicaid is a government program that helps people of all ages with medical costs when their income and resources are insufficient to pay for healthcare. The Medicaid program offers medical and health-related services to approximately 75 million low-income and disabled people.

[7] This is not the first fraud, waste and abuse initiative enacted within the CMS. February 2006 saw the enactment of the Deficit Reduction Act of 2005 creating the Medicaid Integrity Program (MIP) – a federal strategy to prevent and reduce healthcare provider fraud, waste, and abuse specifically in the Medicaid program. While that program persists, the CPI is a formally recognized integrity office and reorganized program targeting both Medicare (initially) and Medicaid. Our focus is specifically on the Medicare aspect.

[8] Within the healthcare industry in the U.S., revenue is generated by healthcare providers rendering services, then potential payers such as health insurance companies (e.g., UnitedHealthcare) or government programs (e.g., Medicare) are billed so that the healthcare provider can be reimbursed for services rendered.

[9] Per USC 18 **§** 1347, healthcare fraud is defined in the U.S. as:
(a) Whoever knowingly and willfully executes, or attempts to execute, a scheme or artifice—
(1) to defraud any healthcare benefit program; or
(2) to obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, in connection with the delivery of or payment for healthcare benefits, items, or services, shall be fined under this title or imprisoned not more than 10 years, or both. If the violation results in serious bodily injury (as defined in section 1365 of this title), such person shall be fined under this title or imprisoned not more than 20 years, or both; and if the violation results in death, such person shall be fined under this title, or imprisoned for any term of years or for life, or both.
(b) With respect to violations of this section, a person need not have actual knowledge of this section or specific intent to commit a violation.

models to detect payment anomalies. Payment anomalies include high numbers of referrals[10] (Health Integrity LLC, 2012), billing for overnight admittances when the patient did not spend the night in a hospital (U.S. District Court for the Eastern District of North Carolina, 2013), long treatment periods, low expenses, rapid revenue growth, referrals from questionable physicians and treatment of flagged patients. The FPS payment anomalies represent potentially fraudulent claims made by the associated healthcare providers.[11]

CMS outsourced responsibility for conducting the audits of potentially fraudulent claims identified by the FPS to Zone Program Integrity Contractors (ZPIC) (CMS 2007).[12] The four ZPIC firms conduct audits across seven geographic zones (DHHS 2012).[13] Subsequent to the FPS identifying payment anomalies a ZPIC firm conducts an audit of the high risk anomalies for potential fraud. While the ZPIC firms receive the data analytics regarding the different types of anomalies identified by the system (see prior paragraph), their inspections are not constrained to this input. Rather, they have a broader mandate in the field to investigate the healthcare provider for any overall patterns of fraudulent claims (DHHS 2012). Thus, an audit is initiated by targeting a specific risk related to Medicare claims, as opposed to a broad regulatory mandate to audit the entire healthcare space. The audit report concludes with the auditor (1) not levying any financial

[10] When a provider does not offer or does not possess the necessary expertise to deliver a required service for a patient, the provider will refer the patient to another provider with the ability to deliver the required services.
[11] While the FPS tool is the primary source for identifying healthcare providers for audit through high risk claims, providers subject to audit may still be identified from sources beyond the FPS, such as a whistleblower.
[12] U.S. federal agencies frequently utilize government contracting to outsource program activities, particularly in the health care field (Preston 1992; see DOJ and DHHS annual reports since 1997). For instance, before the CPI program was initiated CMS used Program Safeguard Contractors (PSCs) for program integrity services (OIG 2007). Our interest in ZPICs was centered on examining audits using the FPS to analyze Medicare data.
[13] Based on a review of the websites of the four contracted ZPIC firms, these firms all promote their services as centered on IT, insurance, and healthcare services in the government sector. Among their capabilities, the contracted firms include audits, compliance, data analysis and fraud review. CMS divides the country into seven regional healthcare zones. Zone 1 covers California, Nevada, and the western island territories; Zone 2 covers the northwest region of the U.S.; Zone 3 covers the upper Midwest; Zone 4 covers the central southern part of the U.S.; Zone 5 covers most of the southeast; Zone 6 covers the northeast; Zone 7 covers Florida and the eastern island territories (OIG, 2017). The "hotspots", or cities identified as high risk for Medicare fraud, include: Los Angeles, Dallas, Houston, Baton Rouge, Tampa Bay, Miami, Chicago, Detroit and Brooklyn (DHHS 2012)

penalties (fines) on the healthcare provider, (2) making determinations of fraud or improper documentation accompanied by levying fines, or (3) recommending complete suspension of payments to a healthcare provider. Suspension may result in CMS eliminating a provider's (i.e. auditee's) cash flow derived from all Medicare services (DHHS 2012). As such, a negative audit outcome can be critical to ongoing provider operations.

Auditees, the press, practitioners, and government agencies refer to the CMS directed process as an "audit". For example, "Another value of expanding the use of the FPS tool is that the MAC and ZPIC may be able to better coordinate audit activity …" (DHHS, 2014, 36), and acknowledge the potential benefits of the analytics as compared to a traditional financial audit: "While CMS believe that the ability of the FPS to corroborate, augment, and expedite cases is of great value to any investigation, there is a significant challenge to measuring the impact using the standards of a financial audit" (DHHS, 2015, 19). Further, "In order to adhere to the audit standards applied to the savings measurement effort, CMS took very conservative approaches to estimating savings" (DHHS, 2015, 22). Also, CMS facilitated MII sessions, including a symposium on data analytics and specific training on fundamentals of auditing, and specialized skills and techniques in Medicaid fraud detection (DHHS, 2015, 40).

Data collection

Our interest began in better understanding the use of data analytics in the audit process. We obtained archival and press documents from public sources available through the CMS website (e.g. Reports to Congress, the ZPIC Statement of Work, etc.) and practitioner websites (e.g. articles published by attorneys, CPAs and consultants). We also obtained archival documents from non-public sources through Freedom of Information Act Requests (e.g. ZPIC policies and procedures, compensation contracts, FPS model information) and participants' communications (e.g. e-mails

with attorneys, along with associated court documents).[14] Reports to Congress portrayed the FPS activities as successful, highlighting the benefits of the healthcare fraud audits to the government (DHHS 2012; DHHS 2014; DHHS 2015). Yet, a review of practitioner articles conveyed a different perspective of the audits from the standpoint of the providers (Vishnevetsky 2012; Van Halem et al. 2012; Baucus et al. 2013).

To develop the protocol, we reviewed prior literature on financial statement audit and on public sector audit including aspects of its emergence (Radcliffe, 1998), its performance (Gendron et al., 2001, 2007; Radcliffe, 1999), and its oversight role (Hoopes et al. 2012; Atwood et al. 2012). Based on our knowledge of both the financial statement and public sector audit literature, we developed a semi-structured interview protocol that we refined in consultation with several practitioners in public accounting and in the healthcare field.

The focus of our research necessitated contact with healthcare providers subject to healthcare fraud audit. In identifying participants, we initiated eight interviews with employees of healthcare providers obtained through one convenience contact.[15] We then continued with a combination of snowball and theoretical sampling in that we contacted several attorneys, CPAs and consultants requesting they pass our request for an interview to their clients in the healthcare industry. Most of the participants were owners of healthcare providers and C-level executives (or other top-management personnel equivalent). The remaining participants were personnel who all either oversee or have key insight into claims reimbursement for providers of significant size and

[14] Prior accounting research demonstrates the value of non-public information obtained from Freedom of Information Act Requests in the healthcare industry (Klein, Li, & Zhang, 2020).

[15] Prior research has expressed the importance of acknowledging the researchers "position in the field" (Pratt, 2009). One of the authors has prior experience auditing healthcare clients as a financial statement auditor for approximately two and a half years. No participants used in this study were contacts this author made while in public accounting. None of the researchers had a pre-existing relationship with any of the participants nor organizations in this study.

capacity.[16] Furthermore, over 75 percent of healthcare providers in our sample had a relationship with a CPA firm for a financial statement audit and/or other consulting work. Table 1 provides complete demographic information.

[INSERT TABLE 1 ABOUT HERE]

The recorded interviews lasted from 31 to 104 minutes (48 minutes on average). One participant did not agree to the interview being recorded. During this interview, the researcher took extensive notes and wrote direct quotes when possible. One of the researchers fully transcribed the recordings from all other interviews.[17]

Data analysis

We analyzed interviews using recognized qualitative procedures (Yin, 2009). We prepared detailed notes during and after each interview and reflected on the topics covered in the interview. This note writing and reflection allowed us to continually revise our understanding of the data and consider possible issues to explore in future interviews. We coded our initial interviews (Yin, 2009) and prepared a summary for each of the transcripts to identify recurring themes. As needed, we added to or revised these summaries through an iterative process of rereading the transcripts. Consistent with our interpretivist approach, we adapted our protocol along interviewees' responses to include emerging themes of interest, especially during the first interviews. During the transcription and coding process, we began to see that the discussions centered on certain topics

[16] One of the country's largest Medicare billers is included in the sample. It is important to note that no participants in our sample were found guilty of healthcare fraud. Even where participants in this study incurred fines, none were fraud related. All fines reported by participants in this study were attributable to alleged insufficient documentation. That the participants were not found to be committing healthcare fraud does not diminish their experience in undergoing a healthcare fraud audit. Rather, we believe this helps to validate that perceptions of auditees as common experiences as opposed to capturing cases of fraud that may introduce volatility into our analysis. However, future research may seek to understand the experience of those found guilty of healthcare fraud.

[17] Eleven participants asked for copies of their transcripts; however, these participants expressed no concerns over the content of the transcripts. Several participants requested to approve specific quotes prior to inclusion and approved all quotes meeting this criterion without modification. Furthermore, we shared earlier drafts of our study with a number of interview participants (Guénin-Paracini et al., 2014; Malsch & Salterio, 2016).

and established a coding scheme for the main discussion points emerging during the interviews. Auditees consistently discussed the following themes in constructing their experience as healthcare fraud auditees: auditors' collection of evidence and documentation, communications with auditees and reporting findings; auditors' backgrounds and credentials; auditors' use of technology, and the societal impacts of the work performed by healthcare fraud auditors. Underlying these themes, we noted that auditees' experiences reflected concerns associated with breaches of socialized audit expectations, and in turn auditees sought to delegitimize, via calling into question, the professionalism exhibited by healthcare fraud auditors relative to "professional" auditors. Our interest was not in (re) interpreting the auditee's experiences through any particular lens of professionalism but to understand, through their common and organic reflections on professionalism, what the experiences of auditees tells us about audits and auditors. Consistent with prior literature, we do not seek to judge competing theories of professionalism (Robson et al., 1994).

Our participants generally discussed four professional criteria established in prior literature. One criteria is that professionals possess a unique set of knowledge and expertise (Covaleski, Dirsmith, & Rittenberg, 2003; Grey, 1998; Kultgen, 1988; Robson et al., 1994) and employ this expertise to symbolize power and control over a domain (Abbott, 1988; Blackler, Reed, & Whitaker, 1993). Claims to expertise help legitimize professionals (Ezzamel, Robson, & Stapleton, 2012; Friedson, 1994; Power, 1991). A second criteria that emerged in our participants' discourse is that professionals hold a credential to certify their expertise (Kimball, 1995) and that continuing education is prescribed to maintain this credential (Kultgen, 1988). Holding a credential helps legitimize the expertise required for professions (Covaleski et al., 2003; Reed, 1996) and failure to obtain a credential may result in termination (Grey, 1998).

A third professional criteria is that this unique knowledge and expertise enables the professional to make judgments that cannot be preprogrammed and to apply rules that cannot be entirely codified (Abbott, 1988; Larson, 1977). Using professional judgment creates a claim to abstract knowledge and expertise deserving recognition as a profession (Elliott, 1999; Kultgen, 1988). This criteria relates primarily to our participants' discussions of auditors' communications with auditees and reporting of findings and auditors' use of technology. Finally, a fourth criteria is that professions serve and support the public interest and do not engage in self-interested behavior (Fogarty, Radcliffe, & Campbell, 2006; Kultgen, 1988; Robson et al., 1994). Professions seek to develop new services, but are prohibited from engaging in self-interested behavior during such development (Abbott, 1988; Fogarty et al., 2006; Kultgen, 1988; Robson, 1994b). Themes raised by participants around the societal impacts of the work performed by healthcare fraud auditors are indicative of this criteria.

Overall, we grouped auditees' experiences around themes reflecting concerns with auditors' knowledge and expertise, judgment and decision-making, credentials and public interest orientation. Interviewing auditees on their relationships with other (e.g. financial statement auditors) allowed us to assess the congruence of their perceptions of audit professionals related to healthcare fraud auditors. We selected the quotes that best represent the main themes identified as exemplars in our analysis. We reached data saturation when additional interviews and analysis neither contradicted nor added any significant new information (Malsch & Salterio, 2016; Rahaman, Neu, & Everett, 2010; Sutton et al., 2011). We focus on the auditee's experience in this particular field and what we can learn about replacing professionals auditors with paraprofessionals guided by data analytics.

4. Auditee experiences of healthcare fraud audits

Our analysis demonstrates that auditees speak about their healthcare fraud audit experiences in reference to their expectations for financial statement audits conducted by public accountants. Throughout our interviews, auditees discuss their experiences with financial statement auditors in generally positive terms while delegitimizing their experience undergoing healthcare fraud audits through comparisons to what they expect from financial statement audits. For instance, auditees discuss interactions with auditors in the public accounting firm that performs their financial statement audit as being very client oriented:

> … [financial statement auditors] they're good to deal with, and the banks we deal with seem happy with the financials that are produced. (Exec13) [18]

> …[financial statement auditors] they're very client oriented. They come, in they consult with me, tell me what they think, tell me where I can improve it … from an accounting standpoint we're sparkling clean because we take care of suggestions and improve our operations. They do an outstanding job. (Exec14)

> They're [financial statement auditors are] good people. They're extremely supportive, both the audit side and the consulting side, I've had good relationships with their professionals, they know what they got to do. There is a difference between what you do in the theory of an audit and the practicality of an operation. But they're grounded enough that you can talk to them and find where the right place to be is. (Exec04)

These quotes exemplify how auditees consider their experiences with financial statement auditors to be client oriented and supportive. Yet, auditees do not discuss their healthcare fraud auditors as meeting these same expectations for conducting an audit. Rather, auditees' reflection on their healthcare fraud audit experience identifies the lack of client orientation and lack of support from healthcare fraud auditors as a recurring theme:

> The most challenging part about it was not being able to do anything about it. You can't talk to them [healthcare fraud auditors]. They use addresses that you can't fax things to, they don't put their phone numbers on any of their letters, documentation or whatever. Basically

[18] References indicate the participant number. Participant quotes have been edited for brevity and clarity, mainly to adjust for stuttering, to edit slang words such as "sorta", "like", "yeah", and to remove filler words marking hesitation in speech such as "um", you know", "kind of".

> they're like a cockroach, you know, they're stuck in the darkness here, and you don't notice them until they're nibbling on your food, then they scurry back into the darkness again, there is no dialog with them or oversight, and that is what is so frustrating to everybody. (Oper04)

> There was no communication at all, you were in a black hole … they're only 20 minutes from here, and I went to their office and … you couldn't go in there, you call them they don't have a phone number, they don't answer. I wanted to speak to somebody to say "listen, what are your findings? Give me some education, explain to me what is wrong, what are you seeing that I'm not seeing, tell me what's wrong, if this is not a fraud case … if it's fraud arrest me or arrest anybody else, but if it's something … what are you seeing what's wrong …" that was one of the hardest things, that we couldn't speak to anybody, we felt like we were in a black hole, that was very challenging. (Exec10)

Beyond the socialized expectations for auditee orientation and support, auditees refer to past experiences and expectations for how they understand audits to function in describing how healthcare fraud auditors breached these expectations:

> …[other auditors] do an entrance conference with us to meet with the people that they should meet with, establish the parameters of the [audit] ... most [audits] we get an informal daily assessment "hey guys we found this, we saw this, we liked this, we're still looking for this" … they always do an exit interview at the end of the [audit] where they say "here's a list of our preliminary findings" and at that point we have an opportunity to say you know "I'm confused about this" or "didn't you see this piece of paper" ... little minor issues are headed off at that point. … 9 out of 10 times of what they said at the exit is what we actually see on the [audit] report. Once in a blue moon they put something a little different of a twist in there ... There is a lot of feedback along the way … [with healthcare fraud auditors] It's just a letter and then you submit your records, and then it's another letter saying you're a criminal and you owe a gazillion dollars (Exec09)

These quotes exemplify how participants have been socialized to expect communication of a certain nature and at certain points in the audit, which they did not receive in the course of their healthcare fraud audit experience. Importantly, participants also have been socialized to expect advance communication from their financial statement auditors. Yet, this advance communication is in contrast to healthcare fraud auditors that may show up unannounced and proceed to further demonstrate their lack of client orientation.

> … a lot of what happens in the financial audit now can be done preliminary ahead of time… we send a lot of checklist information electronically, so by the time they come in to do their fieldwork they've really had a lot of our financial data and information (Exec 03)

> They [healthcare fraud auditors] were out here showing up unannounced at facilities and reviewing records. … 11 auditors showed up unannounced and walked in and basically demanded that all business stop, including patient care again only to deal with these guys. They wanted 40 charts copied and scanned right then and there. I basically told them that's an impossibility … they showed up at another one of my facilities after that one unannounced. I had my annual surveys going on and "I said have annual surveys here, I've got 7 surveyors there no room for the 7 of you to come in here" and they said "So you're denying us access" and I said "I've got survey issuers, 1) There's nobody to talk to you, 2) there's nowhere to put you. So, if you want to stand out here on the sidewalk and audit you can set up a table here on the sidewalk, but there's no room inside the building". Of course, they sent a letter saying I denied them access, therefore I would not be receiving payment … they just walk in unannounced and expect that everything has to stop because they're in the building. (Exec 01)

Overall, auditees present their healthcare fraud audit experience as violating their socialized expectations for an audit by professional auditors by drawing comparisons to financial statement audit experiences. Such discourse illustrates how auditees may have been socialized in terms of their expectations of what an audit should entail. Thus, auditees have developed expectations of what they will experience when undergoing an "audit", however the healthcare auditors violate such expectations. This is exemplified in auditees attempt to delegitimize the healthcare fraud auditors by using discourse drawing upon professional criteria for auditors that demonstrates how healthcare fraud auditors violate such criteria.

Auditees consistently raise themes around the four professional criteria noted previously, including that professions: develop a unique set of knowledge and expertise and employ this expertise (Covaleski et al., 2003; Kultgen, 1988); use this unique knowledge and expertise to make judgments that cannot be preprogrammed or reduced to a set of rules, while allowing the professional discretion to cope with unforeseen problems (Abbott, 1988; Kultgen, 1988; Larson, 1977); hold a credential to certify expertise (Kimball, 1995; Kultgen, 1988); and support the public interest and do not engage in self-interested behavior (Fogarty et al., 2006; Kultgen, 1988). Inherent in raising these themes is participants' reflection on their traditional audit experience and

what they experienced in undergoing a healthcare fraud audit. Although, the firms contracted to conduct healthcare fraud audits are encouraged to employ "professionals" (CMS 2007), the analysis that follows demonstrates that auditees do not perceive such auditors to act in accordance with the auditee's expectations for "traditional" audit professionals leading them to delegitimize the audits and the auditors who conduct them.

Lack of knowledge / expertise

Auditees discuss their experiences undergoing healthcare fraud audits in relation to the knowledge and expertise of the auditors. CMS mandates healthcare fraud auditors to follow CMS audit instructions, policies and procedures as well as both Government Audit Standards (GAS) and AICPA standards (CMS 2007, 94).[19] Auditees do not perceive the auditors to have adequate knowledge and expertise regarding such standards in the conduct of their audit. Auditees challenge healthcare fraud auditors' audit expertise by questioning the acumen auditors exhibit for what they are auditing, whether the auditors understand aspects of their own audit process, and the resulting accuracy of the auditors' assessments.

For instance, auditees indicate that healthcare fraud auditors are not clear on what they are auditing. The auditee employed by the most sophisticated provider in our sample explained that when audit documentation is requested, auditees are usually able to comprehend what the auditors are examining and why. However, because this is not the case with the healthcare fraud audit documentation requests, auditees presume that the auditors do not know how to conduct their audit:

> I don't think they know [what they are looking for]. I honestly don't. I talked to several providers and they all agree [with] me, we don't think they even know what they were [looking for]. (Exec01)

[19] Specifically, section 5.4.6 of the Statement of Work (CMS 2007) states: "… the ZPIC must apply and follow applicable CMS audit instructions, CMS policies and procedures, Government Auditing Standards (GAS), and American Institute of Certified Public Accountants (AICPA) professional standards for all audit activities".

> Well, it was really kind of bizarre … the only commonality that we could determine from the sample was that there was some kind of psychiatric diagnosis associated with the inpatient stay… on these particular charts that were pulled … we were grasping to say "I'm not clear what they are looking for" and there doesn't seem to be any big deviation. (Oper02)

> … they got already close to fifty percent of the charts, if they would base it on my current census, or my yearly census … they already achieved at least 50% of that population. That's more than enough, to say, "okay, does this agency show any evidence of fraud activity?" (Exec19)

Auditees' experience of dissonance in healthcare fraud auditors' knowledge and expertise is also rooted in what auditees suggest is an inability to properly integrate FPS data analytic findings with other audit evidence. The method used by the FPS identifies the highest risk claims and potential problems for the healthcare fraud auditors to audit (DHHS 2014; DHHS 2015). This method deviates from random sampling since the highest risk claims are *not* representative of the entire population of claims. Auditees highlight the healthcare fraud auditors' lack of understanding of audit sampling concepts and processes when discussing the healthcare fraud auditors' techniques for extrapolating errors to the population. For example, several auditees report that healthcare auditors examine the FPS-identified sample of high-risk claims and then extrapolate the audit error findings across the entire population of claims, despite the sample not being representative of the population. In response, some auditees hire their own "experts" to examine the validity of the auditor's method of extrapolating errors, noting:

> ... [the statistician] literally tore these people up. As to how inept, how ridiculous their formula was, and they couldn't document it, they couldn't back into how they got to this number. (Exec10)

> [The healthcare fraud auditor] threw the extrapolation out [during the appeal process] because of … data deficiencies, whatever, the way they calculated they couldn't reproduce. (Exec13)

> … the PhD that put that [report assessing the extrapolation] together said … in short, their extrapolations are not reliable. (Exec14)

This is consistent with auditees perceptions of deficiencies in healthcare fraud auditors' knowledge of sampling and extrapolation of errors, as the auditors do not seem to understand the assumptions underlying their audit approach (Andon et al. 2015, 88). Deficient techniques for extrapolating audit errors can significantly impact audit outcomes. Prior research indicates a financial statement audit failure rate of less than 1% annually (Francis, 2004), suggesting that financial statement auditors have sufficient domain level expertise. In conveying their experience of healthcare fraud audits, however, auditees highlight the healthcare fraud auditors' failure rate in the reporting of erroneous findings to Congress. Several participants report that the initial fines for overpayments levied on their employing organizations were substantially reduced during the appeals process.[20]

> I mean this is just extortion … $1.56 million [in fines assessed] turned into $622. (Exec07)

> … the ALJ [Administrative Law Judge] found that, that the government really was only due $1,500 some odd dollars, that's a less than 3% error rate [from the initial fine]. (Oper08)

Of the purported erroneous claims identified by healthcare fraud auditors, approximately twenty percent of those are ultimately collected by CMS (OIG, 2017). This suggests that eighty percent of the improper claims that healthcare fraud auditors report to Congress are invalidly included.[21] The healthcare fraud auditors may be incentivized to report large findings to Congress to demonstrate their knowledge and expertise. However, expertise is associated with performance (Bédard and Biggs 1991; Knapp and Knapp 2001; Knechel et al. 2013) and such a high failure rate suggests poor performance, casting doubt on healthcare fraud auditors' domain-level expertise. Thus, while professionals are expected to hold a unique set of knowledge and expertise (Covaleski

[20] Healthcare providers may appeal fines levied on them in a sequential five step process that involves: 1) redetermination – appeal must be sent within 120 days, 2) reconsideration – appeal must be sent within 180 days, 3) Administrative Law Judge (ALJ) – appeal must be sent within 60 days, 4) Medicare Appeals Council – appeal must be sent within 60 days, and 5) U.S. District Court – appeal must be sent within 60 days.
[21] Such reductions of fines are attributable to factors such as the appeals process (OIG, 2017).

et al., 2003; Kultgen, 1988), taken together this section demonstrates how auditees delegitimize healthcare fraud auditors by expressing skepticism as to whether these auditors hold the appropriate professional knowledge and expertise.

Lack of certification

As an extension of knowledge and expertise, auditees present their experiences undergoing healthcare fraud audits relative to these auditors' backgrounds and certifications. Professions require extensive training and education (Kultgen, 1988) and a credential certifying formal learning (Kimball, 1995; Kultgen, 1988; Robson, 1999) in a specific domain. For financial statement auditors to be credentialed in the U.S., auditors generally must pass their certifying exam as well as complete college credits (AICPA 2019a) and often obtain financial statement audit experience (AICPA 2019b). Later, certified financial statement auditors maintain their credentials by satisfying requirements for continuing professional education. Auditees do not question their financial statement auditors' certification and speak highly of their financial statement auditors.

By contrast, auditees convey that healthcare fraud auditors lack the appropriate training, education and certification. In this field, auditees expect healthcare fraud auditors to have a background in both auditing *and* healthcare. For instance, several auditees in this study delegitimize the healthcare fraud auditors by informing us that their healthcare fraud auditors were former police officers, rather than auditors, and calling into question their understanding of the healthcare industry exemplified as follows:

> ... we also ran background checks on the [healthcare fraud audit] people. One was a disbarred financial planner, one was a CPA that had his CPA license revoked, and the rest of them were all ex-cops, what the hell do they know about healthcare? … so how can you look at clinical charts and evaluate them if you're not a clinician? ... we're like "what did you make this clinical decision on? you're an ex-cop". (Exec 01)

> … their background was in law enforcement … each one of them went through their background, had nothing to do with healthcare. (Oper10)

In some cases, auditees highlight that despite not being physicians, and having a lower level of education than physicians, healthcare fraud auditors "can override a clinician's determination" (Oper11). This aligns with prior research showing that auditees question the background and qualifications of public sector auditors, to the extent that some auditees claim to have greater knowledge than their auditors (Gendron et al., 2007). Taken with the previous section, auditees express doubt that the healthcare fraud auditors are adequately trained and credentialed in either audit evidence gathering and evaluation or healthcare industry knowledge.

While healthcare fraud auditors are encouraged to meet certain education requirements and hold certifications, these remain largely undefined in regulatory guidance (CMS 2007). Furthermore, the healthcare fraud audit firms' policies and procedures do not discuss staffing and qualifications of audit teams, other than referring to the possible need for subject matter experts.[22] When faced with performing a task that they do not have the knowledge or expertise to complete, financial statement auditors acquire the desired expertise or engage a specialist.[23] However, expanding audit beyond the financial statements may necessitate extending the scope of recruitment to specialists (in law, IT, strategy, etc.) with different (and sometimes conflicting) social and professional dispositions (Malsch & Gendron, 2013). As the stated purpose of the healthcare fraud audits relates to uncovering fraudulent healthcare activities, the emphasis is likely on investigative skills. In an audit of an investigative nature, the Certified Fraud Examiner (CFE)

[22] Through a Freedom of Information Act request, we obtained the ZPIC firms' internal policies and procedures. These documents did not directly discuss how the audit teams are staffed and what kinds of skills are prioritized. However, the policies and procedures do acknowledge the potential for audit teams to contain insufficient expertise, for example: "As appropriate, the [healthcare fraud auditors] will seek involvement of various [CMS] subject matter experts for guidance/direction related to the contract." In these ad hoc cases, CMS may be involved in determining the staffing of audit teams depending on the issue and need for expertise.

[23] In these circumstances, professional standards permit financial statement auditors to utilize a specialist contingent upon evaluating the specialist's qualification and the auditor's understanding the work performed. See PCAOB standard AS 1210: Using the Work of a Specialist.

designation may be an appropriate credential and way of certifying domain expertise rather than the traditional CPA.

With our focus on the experiences of auditees undergoing data analytic driven nontraditional audits performed by nontraditional auditors, the *actual* backgrounds and credentials of the auditors is less important than the perception of the auditees that auditors are not appropriately credentialed. Despite this, we analyze publicly available data to provide additional validity to the auditee's perceptions regarding healthcare fraud auditors' backgrounds and credentials. To obtain additional data on the healthcare fraud auditors' backgrounds, we examined a sample of 180 healthcare fraud auditors' social media profiles.[24] The healthcare fraud auditors in our sample come from a variety of backgrounds, including law enforcement, healthcare practitioners, and medical claims analysts. Only 16% of the profiles examined reflect a healthcare background of some sort while a much higher level of healthcare fraud auditors have law enforcement backgrounds. Of the profiles examined, the most prevalent certification was the CFE. Yet, less than fourteen percent of the individuals in the sample presented themselves on LinkedIn as holding a CFE certificate. Additionally, the CFE certification entails general anti-fraud knowledge (Courtois & Gendron, 2019).[25] As such, we examined the profiles for healthcare fraud

[24] Since we do not anticipate the sharing of personnel data by ZPIC firms, we collected public data on employee's professional backgrounds from LinkedIn. Social media use, including LinkedIn, has grown rapidly providing opportunities to incorporate new data into research (Ku and Firoozi 2019). For example, LinkedIn creates space for professionals and non-professionals to engage in practices expanding domains and redefining professional expertise (Suddaby, Saxton, & Gunz, 2015). LinkedIn profiles summarize an individual's skills, employment history and education (Debreceny, Wang, & Zhou, 2019). Using LinkedIn company profiles, we estimate that the four ZPIC firms employ approximately 3,000 people not all of whom work on healthcare fraud audits. As we are interested in healthcare fraud auditors, we searched LinkedIn people profiles using key words, such as "Zone Program Integrity Contractor", "ZPIC" and the names of the ZPIC firms. We haphazardly reviewed the profiles associated with these hits (combination of ZPIC and the ZPIC firms) until we reached about 5% of our estimate of ZPIC firm employees.

[25] CFE license holders also question the rigor of the certification exam and licensure process (Courtois & Gendron, 2019).

auditors holding a healthcare specific fraud certification, the Accredited Healthcare Fraud Investigator (AHFI). Less than four percent held the AHFI certification. We identified one CPA.

In line with Andon et al. (2015, p. 84), auditees delegitimize the healthcare fraud auditors by portraying them as not "professionally qualified", which for auditees implies that only individuals with certain backgrounds and experiences have the "right" to inhabit audit roles. Auditees suggest that healthcare fraud auditors do not have a "right" to conduct healthcare fraud audits because their background and experience in law enforcement does not meet the auditee's expectations for audit professionals. However, in this field, CMS may seek auditors with a heavy law enforcement background as law enforcement lends to a focus on investigating and reporting fraud and criminal behavior in a way that traditional financial statement audit does not.

Make non-programmable decisions

In addition to knowledge, expertise and credentials, auditees also convey experiences regarding how healthcare fraud auditors make non-programmable decisions. The literature on professions identifies the application of a unique set of knowledge and expertise to subjective decision making (Covaleski et al., 2003; Kultgen, 1988). The often abstract nature of knowledge and expertise indicates that professions make judgments that cannot be preprogrammed or reduced to a set of rules, allowing the professional discretion in coping with unforeseen problems (Abbott, 1988; Larson, 1977). In relation to this, auditees delegitimize the healthcare fraud auditors by discussing how the findings reported by these auditors exhibit a lack of professional judgment.

This lack of professional judgment stems partially from auditees' perception that healthcare fraud auditors have no legitimate basis for an opinion about healthcare systems and claims, for instance, who can prescribe treatment and what treatment to prescribe. Medical records may be subject to scrutiny related to the necessity of care delivered, but such scrutiny requires substantial

professional judgment and not simply checklist evaluation. However, the healthcare fraud auditors' judgement of documentation of medical treatments and care drives this override. Indeed, auditees express concern that the healthcare fraud auditors' judgments do not focus on the quality or sufficiency of care delivered to the patient.

> ... they're [reimbursement claims] not being denied on [medical] necessity, they're being denied on technicalities. (Exec07)

> … what [healthcare fraud auditors] are doing, they're just checking off [the box], they're not really reading the medical content of the chart. (Exec08)

> … [healthcare fraud auditors are] not really looking at what we did for the patient, what's wrong with the patient, how we took care of the patient, how we had a good quality report. (Oper10)

Rather than focusing on quality of care, auditees dismiss the healthcare fraud auditors' ability to exercise professional judgment by indicating that the healthcare fraud auditors' findings focus purely on documentation issues that reduce their judgment to a series of rules, violating professional criteria (Abbott, 1988; Larson, 1977). For example, healthcare fraud auditors identify claims as being erroneous when auditee documentation contradicts the auditor's rules, despite the documentation being completed in accordance with established regulatory procedures, as in:

> … we use electronic signatures with a lot of the doctors ... and Medicare accepts it. … when they do it electronically, the little symbol for the electronic signature also prints the date in… And they [healthcare fraud auditors] denied those claims saying that the doctor did not sign and date the order, he just signed it and the machine dated it. (Oper04)

> …[healthcare fraud auditors] pay no attention to the recent [procedural] ruling[s]… [healthcare fraud auditors are] not really paying attention to any of those findings… but we're aware of them because when it happens we receive training, and we train our staff on providing those services correctly and incorporating those particular findings so we're not in violation and we're not violating anyone's rights. (Exec06)

Finally, contrary to expectations, auditees' experience of healthcare fraud audit suggests that reliance on technology enabled tools (i.e., the FPS) hinders auditors' professional judgment. Technology enabled tools can be used to control and facilitate the financial statement audit and

support auditors (Banker, Chang, & Kao, 2002; Winograd, Gerson, & Berlin, 2000). Consistent with this idea and with the healthcare fraud auditors' charge, the FPS facilitates the healthcare fraud audit as:

> ZPICs use the FPS to more efficiently and effectively fulfill their responsibility to investigate Medicare fraud in their designated region. (DHHS 2012, 15)
>
> The FPS screens claims data before payment is made, allowing ZPICs to rapidly implement a potential administrative action … (DHHS 2012, 15)

Accordingly, the FPS centralizes and standardizes judgement and facilitate auditors targeting their investigations to the highest risk claims (DHHS 2012; DHHS 2014; DHHS 2015). However, this appears contrary to professional criteria as the FPS represents a tool that restricts auditors' ability to exercise professional judgment and ensure that appropriate audit procedures are conducted (Boland et al., 2019; Dowling & Leech, 2014). Furthermore, the FPS tool may identify a large number of exceptions (Alles, Kogan, & Vasarhelyi, 2008), presenting the healthcare fraud auditors with too many issues that overwhelm them and hinder decision making (Iselin, 1988; Kleinmuntz, 1990). Indeed, auditees express frustration with the number of false positives identified and, in their view, treated incorrectly by the auditors. Merely identifying these exceptions is insufficient; rather they need to prioritize exceptions, evaluate false positives and isolate true exceptions. Where the system does not identify these "exceptional exceptions" and guide auditors to focus on the most suspicious items (Issa & Kogan, 2014), auditors must use professional judgement to do so.

Taken together with auditees' observations on healthcare fraud auditors' knowledge and expertise, our analysis suggests that auditees believe healthcare fraud auditors blindly follow the prescriptions of the automated tool without truly understanding how to aggregate and assess the audit evidence. Our analysis provides an example of technological developments impacting how audit work is carried out (Canning, Gendron, & O'Dwyer, 2018). This is contrary to professionals,

including financial statement auditors, placing a strong emphasis on maintaining their decision making autonomy (Abernethy & Stoelwinder, 1995; Covaleski et al., 1998). Rather, the healthcare fraud auditors exhibit an automation bias where a warning system (i.e. FPS fraud red flag) cognitively triggers the reactionary need to do something rather than assess whether something needs to be done (Skitka, et al., 1999). The overwhelming reaction to red flags is consistent with prior research showing that novices increase bias in decision making when using artificial intelligence-based tools, whilst experts understand context and reduce bias (Arnold et al., 2004).

Public interest orientation

Professions emerge and their existence is maintained by a need for activities that protect the public interest and positively address societal issues (Abbott, 1988; Kultgen, 1988). Accounting can serve as both a value distorting and a value promoting function (Power, 2021). When considering financial statement audits, failure to act in the public interest (e.g. Enron, WorldCom, and others) is met with audit firms being the target of public jokes (Gendron & Spira, 2009) and media scrutiny (Gendron & Spira, 2010) as well as investors losing money (Gendron & Spira, 2010), clients stock price and earnings decreasing (Chaney & Philipich, 2002), and financial penalties to both the client and their audit firm (Francis, 2004; Gendron & Spira, 2009; Newman, Patterson, & Smith, 2005). Nontraditional audits may operate in contexts where audit failures have even wider public interest implications, including for societal wellbeing (Mashaw & Marmor, 1994) and potential loss of life (Sherer, 2014) in the healthcare field.

In undergoing healthcare fraud audits, auditees acknowledge the positive public interest implications of the government's initiative to use healthcare fraud audits to identify providers committing healthcare fraud and even shut them down.

> If they [healthcare fraud auditors] are there and you [provider] did commit fraud I'm happy as heck. (Exec07)

> The ones that are blatantly across the board committing fraud, shut them down, I have no problem with that. (Oper11)

> … [convicted fraudsters] needed to be handled appropriately and should be shut down. (Exec17)

The U.S. government's political discourse in annual Congressional hearings around the "success" of healthcare fraud audit focuses on the need to crack down on waste and fraud in Medicare. However, Reports to Congress do not discuss issues of public health and implications for the delivery of healthcare services during and after an audit (DHHS 2012; DHHS 2014; DHHS 2015). For example, Reports to Congress do not address adverse impacts to the provision of service or quality of care to the country's aging population, consistent sub-themes in our interviews. This is consistent with prior research noting how accounting may "crowd out" other values by taking actions that "economizes" and "financializes" organizational performance (Millo, Power, Robson, & Vollmer, 2020) in an attempt to illustrate *moral* and *instrumental* legitimacy (Cooper, Ezzamel, & Robson, 2019).

First, several auditees express how their experience of undergoing healthcare fraud audit affect their intentions to deter healthcare fraud audits and potential punishment by decreasing the number of Medicare patients treated or to (in)voluntarily cease treating Medicare patients altogether (DHHS 2015, 15), as noted in the following:

> … we're going to stop taking Medicare totally, because at least we know Medicaid is going to pay. We got to meet our payroll. (Exec04)

> I had to stop taking Medicare today. I cannot afford to pay staff, phone, lights with no financial relief. (Exec06)

> … we are making an assessment if we want to just stay away from Medicare patients all together … this [audit] process bankrupt's companies. (Oper06)

As healthcare providers stop accepting Medicare, choices for Medicare patients become more limited.[26] Furthermore, the jurisdiction of the healthcare fraud auditors in this study has expanded to Medicaid (CMS 2018b), which may affect healthcare providers' ability to sustain operations by diversifying their services as well as limit the potential provider choices for Medicaid patients.

Auditees also note the potentially significant impacts that healthcare fraud audits have on a healthcare provider's ability to provide service and sustain operations. For example, one auditee described how despite being the largest provider in the country for a specific type of service, the result of their healthcare fraud audit prohibits them from providing that service. Other auditees express the potential impact of healthcare fraud audits on provider's ability to sustain operations:

> … small mom and pop that are just a one location thing, if they ever faced this, they'd be out of business. (Exec09)

> … we've heard that there's companies that completely shut down. And then when they go to appeal the judge rules in their favor, but there's no company anymore. (Oper06)

> … I bought one of my nursing homes because they had gotten hit and couldn't survive this [a healthcare fraud audit]. (Exec01)

Thus, for a provider to close down specifically due to a healthcare fraud audit represents a salient fear, as auditees have even declared bankruptcy after the initiation of a healthcare fraud audit.[27] Closures further limit the number of healthcare providers available to deliver Medicare services to those in need.[28] This is particualrly concerning for providers in areas with limited medical facilities

[26] This is a long standing issue with healthcare providers changing operations (i.e., patient mix) and even financial reporting in response to governmental regulation (Blanchard, Chow, & Noreen, 1986; Eldenburg & Kallapur, 1997; Eldenburg, Krishnan, & Krishnan, 2017; Eldenburg & Soderstrom, 1996; Holzhacker, Krishnan, & Mahlendorf, 2015; Kallapur & Eldenburg, 2005; Koreff, Robb, & Trompeter, 2020; Krishnan & Yetman, 2011). Such decisions are reminiscent of Llewellyn's (1998) field study of cost accounting in social services which provides an example of "value-for-money" auditing encroaching on social workers' roles as caregivers (308).

[27] Bankruptcies are driven by the healthcare fraud auditors freezing Medicare reimbursements to the provider for an extensive time period pending resolution of purported fraud activity, restricting cash flows.

[28] Although not directly linked to healthcare fraud audits, recent press articles present the extent to which the location and availability of healthcare providers may affect Medicare and Medicaid Patients. See, for instance, https://www.nytimes.com/2018/07/17/us/hospital-closing-missouri-pregnant.html.

(such as rural areas) (Eldenburg & Krishnan, 2003). Indeed, one of the auditees in our sample is the only provider in the region that delivers services over the weekend. Without this provider, patients would have to wait for services or simply not have services when needed.

In addition to disruptions in provision of service and provider operations, auditees report hindered quality of care as a result of their healthcare fraud audit. In line with Pflueger's (2016) suggestion that accountants largely overlook the quality of care delivered by healthcare providers, a lack of focus of healthcare fraud auditors on quality of care is particulary troubling to auditees given that "patient experience / satisfaction" is a priority (The Beryl Institute, 2015). Auditees convey their perceptions of the way healthcare fraud audits impact quality of care as follows:

> … I think the most challenging process was the allocation of resources and time spent from our team that took us away from patient care. Because most of our really, really good clinical nurse leaders needed to be putting these charts together [for the healthcare fraud auditor]. (Exec02)

> … the patients are the ones who are suffering. Absolutely the patients are the ones who are suffering. (Oper11)

> … do I think care was compromised [as a result of the healthcare fraud audit]? I most certainly do. (Exec18)

In accordance with expectations that professionals serve the public interest (Abbott, 1988; Kultgen, 1988), the discourse of auditees regarding their healthcare fraud audit experience delegitimize audit and the auditors by suggesting that negative societal consequences to provision of services and quality of care represent a failure to promote the public interest. At the same time, CMS emphasizes the government's commitment to ensuring that both provider operations and quality of care is not adversely impacted by healthcare fraud audits.

> CMS is committed to ensuring that fraud prevention efforts do not place unnecessary administrative and compliance burdens on legitimate providers nor interfere with their business operations. (DHHS 2012, 34)

> The FPS governance process ensures that the system's ... sophisticated analytics minimize impact on beneficiaries and legitimate providers and do not adversely affect the quality of healthcare. ... Reducing fraud contributes to ensuring that beneficiaries have access to quality healthcare. ... when fraud occurs, there are direct human costs. (DHHS 2012, 33)

Despite this emphasis, the extent to which the government mandated healthcare fraud auditors consider the public interest in the performance of their audits remains unclear. Prior research similarly questions what it means for financial statement audits to serve the public interest (Canning & O'Dwyer, 2001, 2003, 2006; Parker, 1994; Preston, Cooper, Scarbrough, & Chilton, 1995). Considering the themes in this section, a picture comes together from auditees that implies much less criticism of public interest implications around financial statement audits as compared to healthcare fraud audits.

5. Discussion

In this study, we conduct field research to investigate how auditees experience data analytic driven audits conducted by nontraditional auditors in the public sector audit of fraud, waste and abuse in government healthcare programs. Our analysis suggests that in undergoing traditional financial statement audits, auditees undergo a socialization process whereby they develop certain expectations for who auditors are and how auditors conduct themselves. More specifically, auditees position their healthcare fraud audit experiences as violating audit expectations, and in turn attempt to delegitimize them by highlighting how they do not meet four criteria for what they perceive to constitute professional auditor behavior. We contribute to understandings of "new audit spaces" by documenting how auditees' experiences with nontraditional audits and nontraditional auditors are understood in relation to their perceptions of auditors' knowledge and experience, background and certification, ability to use judgment and public interest orientation. Auditees

ability to identify these distinctions offer caution for public accounting firms in using nonprofessionals relying heavily on data analytics in lieu of professional auditors.

First, auditees question the domain knowledge and expertise (Covaleski et al., 2003; Kultgen, 1988) possessed by the healthcare fraud auditors. Auditees express concern with the healthcare fraud auditors' expertise by highlighting their inability to effectively integrate information identified by a data analytic tool (the FPS) into their audit work as well as what the auditees consider to be a high rate of failure in evaluating false positives and identifying actual fraudulent claims. Second, auditees indicate that healthcare fraud auditors do not meet their expectations for auditors having the appropriate educational backgrounds (Cooper, Robson, & Willmott, 1996; Kultgen, 1988) and credentials certifying formal learning (Kimball, 1995; Kultgen, 1988). Examination of the healthcare fraud auditors' backgrounds and credentials suggest that a minimal number hold general fraud certifications and even fewer hold specific healthcare fraud certifications. Third, healthcare fraud auditors violate auditees' expectations that traditional auditors' knowledge and expertise facilitates their use of judgment and ability to cope with unforeseen problems (Abbott, 1988; Larson, 1977). In particular, auditees highlight how healthcare fraud auditors' lack of knowledge surrounding technology enabled tools, i.e., the FPS, reduces the auditor's ability to exercise judgment about audit findings, which auditees denote as documentation issues and "technicalities" rather than fraudulent claims. Finally, auditees express concerns regarding what they perceive as a lack of public interest orientation (Fogarty et al., 2006; Kultgen, 1988) by healthcare fraud auditors. While the work of traditional financial statement audits and auditors may produce adverse financial impacts (Chaney & Philipich, 2002; Francis, 2004; Newman et al., 2005), the healthcare fraud context may introduce a broader range of societal impacts, exacerbated by the sensitive nature of the healthcare field (Mashaw & Marmor, 1994).

Auditees highlight some of the negative consequences of healthcare fraud audit that may limit access to and quality of care for Medicare patients. These consequences include indirect implications of auditees response to a the actions of regulatory institution's actions (Ezzamel, Robson, Stapleton, & McLean, 2007).

Our analysis also raises two interesting questions that we elaborate on in this section. First, our analysis puts forth the idea that auditees are socialized to expect auditors to exhibit certain professional characteristics, to follow particular processes and respect particular professional boundaries. Prior audit research on socialization observes how auditors come to behave in expected ways as an audit professional (Anderson-Gough et al., 2000; Covaleski et al., 1998), how audit firms behave in accordance with the expectations of their professional staff (Durocher et al., 2016), and how auditees may influence the performance of the audit (Daoust and Malsch 2020). Our work, however, alludes to the way in which auditees themselves develop socialized expectations for what it means to be an auditor and to conduct an audit based on prior experience with "legitimate" auditors. When faced with nontraditional audit experiences that disrupt prior experiences with traditional audits conducted by public accountants, auditees respond by delegitimizing the actions of the nontraditional auditors, highlighting how they do not meet idealized professional expectations. As the auditees do not identify healthcare fraud auditors with the profession, they undermine these auditors, at least discursively. In this sense, auditees in this field seem to fall somewhere in the "in between" space suggested by (Daoust & Malsch, 2020), where auditees are not simply socialized to respond in a passive way to auditors but also are not so influential as to be capable of exerting power over auditors. Overall, our work suggests there is more to learn about the potential for auditee (and auditor) socialization in the context of traditional audits and otherwise.

The second consideration raised by our analysis touches on the notion of the idealized professional (Suddaby et al., 2009). For our auditees, healthcare fraud auditors were anathema to professional myths about auditing roles and status (i.e., only "professional" auditors have the right to inhabit auditing roles) (Andon et al., 2014, p. 83). At the same time, the public accountants have themselves been under fire for exhibiting declines in professionalism (Dirsmith et al., 2015), through the reduction of judgment in the commodification of audit procedures (Barrett, Cooper, & Jamal, 2005; Suddaby & Greenwood, 2001) and perceived conflicts in auditors' public interest orientation (Cooper & Robson, 2006). Yet, auditees do not raise such criticism in their reflection on financial statement audit experiences. Where the word audit is attached to activities that bear only passing resemblance to financial statement audit and that may be performed by practitioners outside of public accounting, raises questions about the extent to which conventional professional features can be expected to translate into new contexts (Andon et al., 2014). At the same time, meanings and expectations attached to audits not conducted by public accounting firms and in nontraditional contexts may be improperly associated with public accounting firms, calling into question the professional stature of public accounting firms, and the idealized financial statement audit, at a time when they have faced scrutiny questioning their professionalism (Dirsmith et al., 2015).

6. Conclusion

Accompanying the rise in technology enabled tools and new types of data to be analyzed (Brown-Liburd et al., 2015; Power, 2021), this paper explores how auditees experience audits in a data analytic driven audit context. In this context, auditees draw upon socialized expectations from their experiences with traditional financial statement audits. The ability of auditees to identify non-professional auditors offer caution to public accounting firms to over-relying on data analytics and

replacing auditors with nonprofessionals at a time when already facing criticism of de-professionalizing trends (Dirsmith et al., 2015).

Our work suggests several areas for future research on new audit contexts, particularly related to data analytics, in the public sector and the field of healthcare. First, our research indicates the need for future research on the role and power of data analytics in different audit contexts (Appelbaum et al., 2017; Williams, 2013). Technological tools enable the commodification of audit procedures and provide auditors with "expert" justification to structure and support audit work (Banker et al., 2002; Winograd et al., 2000). Reliance on the technological tool allows auditors to reduce human judgment and defer to the tool as the decision-maker (Boland et al., 2019; Dowling & Leech, 2014), which in the long-term hinders development of individual expertise and a fields advancement of knowledge (Arnold & Sutton, 1998). While it may be tempting for accounting firms to hire nonprofessionals to be guided by data analytics in an effort to constrain costs, the results of this study show auditees ability to identify nonprofessional auditors at a time when the public accounting profession has faced scrutiny for de-professionalizing trends (Dirsmith et al., 2015). The use and reliance has already been indicated to have potentially adverse societal implications not to mention dehumanizing aspects (Arnold & Sutton, 1998; Cooper, Dacin, & Palmer, 2013), that may be exacerbated in the public sector field of healthcare.

The development of the FPS demonstrates how technologies can be used in conjunction with political rationalities (Free et al., 2020). Accounting devices can impact social change (Robson, 1991), such as the FPS tool being used to politically remake and define a healthcare patient in data analytic terms in an attempt to reduce waste (Preston 1992; Llewellyn 1998; Kurunmäki 1999; Covaleski et al. 1993; Samuel et al. 2005), blurring the line between cost and caring (Llewellyn, 1998; Samuel et al., 2005). Reports to Congress provide an example of a

governmental entity using accounting information to gain legitimacy (Carruthers, 1995; Edwards, Ezzamel, McLean, & Robson, 2000; Eldenburg & Krishnan, 2008) and government endorsement of the use of technology from a cost perspective (Nielsen, Mathiassen, & Newell, 2014). At the same time, auditees demonstrate the potential harm the technology produces to the quality of healthcare providing an example of the unintended consequences of data analytics (Radcliffe, Spence, & Stein, 2017; Spence, 2010), which may be attributable to attempted interventions from governments not engaged locally, also referred to as "action at a distance" (Robson, 1992, 1993b, 1994b). Thus, we observe that focusing on financial performance, e.g., ROI, paints an incomplete picture of the long term implications (Robson, 1994a). Overall, we have much more to learn about unintended consequences of technology in a data analytic-driven world both in a public sector audit context and well beyond.

Relatedly, future research should expand our understanding of the societal consequences of audits and auditors' activities in different contexts, particularly in the public sector. Public sector audit mandates to improve performance of government programs and use of public resources, such as the healthcare fraud mandate under study, may claim public interest objectives that are one-sided in terms of their financial focus, or at least not comprehensive in their consideration of what is in the public interest (O'Dwyer & Unerman, 2008). Reports to Congress summarizing healthcare fraud audit activity under the FPS focus on financial metrics and do not discuss the real societal implications of healthcare fraud audits (e.g. patient care suffering and providers refusing patients). From the perspective of auditees, the demands that healthcare fraud auditors placed on providers in many cases adversely affected either quality of patient care, facility operations, or service

population decisions. This implies the imperative for public sector audit mandates to consider a broader range of metrics to evaluate audit objectives, processes and outcomes.

Finally, more research should consider the role of audit and auditors in contributing to policy making or policy aims in the public sector. Given the substantial political debates regarding U.S. healthcare, our study raises questions about whether the U.S. healthcare system is "intentionally" broken and if healthcare fraud auditors are merely a mechanism employed by politicians to circumvent the system and achieve their political aims. Our auditees speculate that healthcare fraud auditors focus a disproportionate amount of resources on smaller providers, which is consistent with targeting populations that increase government spending (Marmor & Morone, 1980), and with targeting healthcare providers that may not have the means to fight invalid outcomes. While politicians face substantial public resistance for efforts directed towards decreasing Medicare spending, contracting with healthcare fraud auditors to detect and prevent fraud results in less public scrutiny and less government spending on Medicare. Thus, Reports to Congress may represent political reports used to push propaganda (Fernández-Revuelta, Gómez, & Robson, 2002), as these reports focusing on financial savings without mention of quality of care implications. As audits may impact processes of social change (Edwards et al., 1999), future research may examine the purpose, objectives and outcomes of public sector audit mandates in terms of their political aims. Those aims may also be understood through governments acting in self-interested behavior when establishing regulation (Robson, 1993a), and further study of auditee responses to public sector audit mandates, including those that resist government mandates (Canning & O'Dwyer, 2013; Malsch & Gendron, 2011), that adapt to such mandates in a way that perhaps reduces the risk of audit (Power, 2013) or that succumb to the objectives of the political apparatus.

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TABLE 1
Demographic information of auditees

Participant[1]	Subindustry	On site audit[4]	Fines[6]	Hot spot[7]	Financial statement auditor	Non-profit	Interview medium
Oper01	Hospital	No	No	No	International	Yes	In-person
Oper02	Hospital	No	No	No	International	Yes	In-person
Oper03	Home Health	Yes	Yes	No	Local	No	Phone
Oper04	DME[3]	Yes	Yes	No	National	No	Phone
Oper05	Home Health	Yes	Yes	No	National[8]	No	Phone
Oper06	Home Health	Yes	Yes	Yes	N/A	No	Phone
Oper07	DME[3]	Yes	Yes	No	National[8]	No	Phone
Oper08	Dr. Office	Yes	Yes	No	Regional[8]	No	Phone
Oper09	Hospital	No	No	No	International	Yes	In-person
Oper10	Home Health	Yes	Yes	No	Local	No	Phone
Oper11	Home Health	Yes	Yes	Yes	Anonymous	No	In-person
Oper12	Home Health	No	Yes	Yes	Local	No	In-person
Oper13	Home Health	No	Yes	Yes	Local	No	In-person
Oper14	Home Health	Yes	Yes	Yes	N/A	No	In-person
Oper15	Home Health	No	No	No	Anonymous	No	In-person
Oper16	Home Health	Yes	Yes	No	National	Yes	Phone
Oper17	Home Health	No	Yes	Yes	Local	No	Phone
Exec01	SNF[2]	Yes	Yes	Yes	Regional[8]	No	Phone
Exec02	Hospice	No	No	No	National	Yes	In-person
Exec03	Hospice	Yes	Yes	Yes	National	Yes	In-person
Exec04	SNF[2]	Yes	Yes	Yes	Regional	Yes	In-person
Exec05	Hospice	N/A[5]	N/A[5]	Yes	Regional	Yes	In-person
Exec06	Home Health	Yes	Yes	No	Local	No	Phone
Exec07	Home Health	Yes	Yes	No	Anonymous	No	Phone
Exec08	Home Health	Yes	Yes	No	Local	No	Phone
Exec09	Home Health	Yes	Yes	No	National[8]	No	Phone
Exec10	DME[3]	Yes	Yes	Yes	N/A	No	Phone
Exec11	Home Health	Yes	Yes	No	National[8]	No	Phone
Exec12	Dr. Office	No	Yes	No	Local[8]	No	Phone
Exec13	DME[3]	Yes	Yes	No	National	No	Phone
Exec14	Home Health	Yes	Yes	No	Local	No	Phone
Exec15	Home Health	No	Yes	Yes	Local	No	In-person
Exec16	Home Health	No	Yes	Yes	Local	No	In-person
Exec17	Home Health	Yes	No	No	National	No	In-person
Exec18	Home Health	Yes	Yes	No	Local	No	Phone
Exec19	Home Health	Yes	Yes	No	Local[8]	No	In-Person

1- We refer to participants as "Oper" when their job titles/positions place them in operational roles within the healthcare provider (e.g. Administrators or Directors in Care Management, Compliance, Legal, Clinical Care or Services, Nursing, Operating, Revenue Management). We refer to participants as "Exec" when their job titles/positions place them in C-Suite roles (e.g. CEO, CFO, Executive Director, Owner).
2 –Skilled Nursing Facility, commonly known as a nursing home
3 – Durable Medical Equipment company
4 –Indicates whether a ZPIC auditor was physically on site at any point during the audit as compared to an audit that was conducted completely at a distance (by email, phone, and electronic means).

5 – Provider did not have a ZPIC audit but, rather, spoke based on what they understood to be happening to other providers with whom they interact.
6 – Indicates whether fines were imposed on the participant's employing organization as a result of the ZPIC audit. Where "yes", all fines were attributable to documentation issues. None were fraud related.
7 – Provider has at least one location in one of the nine designated fraud hot spots (DHHS 2012).
8 – Providers who had consulting or tax work performed by a CPA but not an external audit.