

Styles of regulators: Evidence from the SEC's comment letters

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ABSTRACT

Security regulations are enforced by SEC staff members. Conceptually, the regulations are to be uniformly enforced despite personal differences among SEC enforcers. We offer evidence to the contrary. Using the SEC's comment letters as our setting, we find that SEC staff members exhibit unique personal "styles." The effects of their personal styles on firms' remediation costs, the contents of SEC comment letters, and the quality of firms' financial reporting are surprisingly large. We manually collect information on SEC staff members. Our results demonstrate that female staff members are generally tougher reviewers and that CPA qualification matters. Overall, our study offers evidence that SEC staff members exhibit individual differences, and their styles shape firms' financial reporting.

Keywords: Regulation enforcement; SEC; Comment letters; Fixed effects

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“The enforcement of the law cannot depend on the justice of a cause or one man’s conscience.”

- Harold H. Greene

1. Introduction

Dating back to Beach (1918), relevant legal literature has long recognized the importance of the uniform enforcement of regulations. Once regulations are in place, conceptually, they are to be enforced equally despite personal differences among enforcers. Individualized enforcement of regulations raises fairness concerns and reduces the effectiveness of regulations in deterring illegal behaviours (Polinsky & Shavell, 2007; White, 2010).¹ An analogy follows: If some police officers are more lenient in enforcing traffic laws and issue warnings instead of fining speeding drivers, those speeding drivers who are fined by stricter officers may feel that they have been unfairly treated. The fairness concern regarding enforcement ultimately lowers the effectiveness of the rules in deterring speeding. In one classical paper, Kadish (1962) argues: “The cognate principle of procedural regularity and fairness, in short, due process of law, commands that the legal standard be applied to the individual with scrupulous fairness in order to minimize the chances of convicting the innocent, protect against abuse of official power, and generate an atmosphere of impartial justice.” In reality, in cases where enforcers potentially have discretion, enforcers (e.g., police officers and public prosecutors) are required to strictly follow standard pre-set procedures and protocols when enforcing the laws.²

In the U.S., the Securities and Exchange Commission (SEC) is the primary public enforcer of securities regulations governing the capital markets. We are interested in whether SEC staff members exhibit their individual differences in their enforcement actions. While studies in economics, finance and accounting have documented individual differences in decision-making among professional

¹ Uneven enforcement of the regulations can also trigger social unrest. For example, concerns regarding police discrimination against certain ethnicities resulted in campaigns, such as “Black Lives Matter” (Day, 2015), and riots, which led to deaths and damage to property (CNN, 2012; Lewis & Swaine, 2014).

² Police manuals for 28 major U.S. cities are available at <https://policemanuals.neocities.org/>. Public prosecutors in the U.K. have to follow the Code for Crown Prosecutors, those in Canada have to follow The Federal Prosecution Service Deskbook, those in Hong Kong have to follow the Prosecution Code, and those in Australia have to follow the Prosecution Policy of the Commonwealth (Australia's Federal Prosecution Service, 2016; Department of Justice, 2015; Director of Public Prosecution, 2013; Public Prosecution Service of Canada, 2014). These pieces of anecdotal evidence show that governments across the world are concerned about consistency in law enforcement, and establish rules to guard against personal discretion.

managers,³ we know little about whether idiosyncratic factors play a role in the enforcement of regulations. As previously mentioned, uniform enforcement pre-empts fairness concerns and is essential to the effectiveness of regulations. Evidence of SEC staff's personal styles thus is important not only to academics, but also to investors, regulators and managers.

Conceptually, the answer to our research question is far from obvious. While the upper echelons theory (Hambrick & Mason, 1984) posits that decision making is influenced by individual specific factors, the SEC has taken a multitude of measures to ensure consistency among its staff members, as discussed in details in Section 2.3. Furthermore, SEC staff members have strikingly similar educational and professional background, and this homogeneity reduces the likelihood that personal differences will be empirically detectable.

Our research setting is the SEC's comment letters on firms' 10-K filings. When firms file their 10-Ks with the SEC, SEC staff members review their filings and issue comment letters addressed to the firms. The firms typically respond to these comments by providing clarifications and amending their current or future filings.⁴

The SEC's comment letters offer an ideal setting for us to investigate our research question for the following three important reasons. First, this setting allows us to attribute decisions to individuals, because these letters are signed by specific SEC staff members in the Division of Corporation Finance.⁵ Similar to the engagement partners who sign the audit reports, the staff members who sign the letters are likely the leaders and the primary decision makers in the review process.⁶

Second, the SEC began to publicize comment letters in its EDGAR database in 2005. Our sample includes 4,798 comment letter conversations among 2,797 firms signed by 135 individual staff

³ Interested readers can refer to Bamber, Jiang, and Wang (2010), Bertrand and Schoar (2003), Dejong and Ling (2013), Dyreng, Hanlon, and Maydew (2010), Ewens and Rhodes-Kropf (2015), Gao, Martin, and Pacelli (2016), Ge, Matsumoto, and Zhang (2011), Graham, Li, and Qiu (2012), Liu, Mao, and Tian (2016) and Yang (2012).

⁴ In extreme cases where fraud is found, the case might be referred to the Division of Enforcement for litigation.

⁵ The details on the filing review process can be found by accessing the following webpage (SEC, 2017): <https://www.sec.gov/divisions/corpfin/cffilingreview.htm>

⁶ This approach is also used in Gao et al. (2016) who identify loan officers responsible for approving bank loans by their signatures at the end of loan agreements filed with the SEC's EDGAR.

members for the period between 2005 and 2015. This large panel dataset offers a sufficient number of observations to draw causality inferences and conduct various robustness tests.

Third, prior research has demonstrated that the SEC's review process has a profound impact on firms' financial reporting. Comment letters by SEC staff result in modifications of firms' current and subsequent disclosures, reduction in accrual-based earnings management, and changes in firms' fair value estimates (Bens, Cheng, & Neamtiu, 2016; Brown, Tian, & Tucker, 2016; Cassell, Dreher, & Myers, 2013; Cunningham, Johnson, Johnson, & Lisic, 2016; Johnston & Petacchi, 2017). How significant a role individual SEC staff members play in the review process is an important question to ask, and the answer to this question provides insights on the determinants of firms' accounting quality.

Our sample consists of 14,207 unique firm-year observations for the period spanning 2005-2015. We employ a fixed-effects-based research design, which was introduced by Bertrand and Schoar (2003) and used in a variety of settings (Bamber et al., 2010; Dejong & Ling, 2013; Ge et al., 2011; Yang, 2012). In our model, the dependent variable is a measure of the outcome of the SEC's review process. We control for firm fixed effects, year fixed effects, and time-varying auditor and firm characteristics. Our control variables explain variations in the dependent variable and help to alleviate the concern that the matching between staff members and firms is not random.⁷ The coefficient estimate on the SEC staff dummy thus represents the impact of an individual staff member above and beyond the impact of firm fixed effects, year fixed effects and other control variables. We extract the coefficient estimates and use their distribution to explore the economic significance of SEC staff member fixed effects. Our statistical inferences are based on F-statistics, which is a popular approach used in numerous prior studies (Bamber et al., 2010; Bertrand & Schoar, 2003; Dejong & Ling, 2013; Ge et al., 2011; Gul, Wu, & Yang, 2013; Yang, 2012).⁸ In addition, following Dyreng et al. (2010) and Gul et al.

⁷ The non-random matching between SEC staff members and firms is consistent with that leaders at the SEC understand that SEC staff members have their personal styles and attempt to match them with firms according to their styles. This concern is effectively consistent with our main conclusion that SEC staff members exhibit personal traits.

⁸ Our conclusion is robust toward the use of the AKM approach, which was introduced by Abowd, Kramarz, and Margolis (1999), refined by Abowd, Creecy, and Kramarz (2002), and used by Ewens and Rhodes-Kropf (2015).

(2013), we run simulations, and our un-tabulated results indicate that F-statistics are well-specified in our setting.⁹

We document significant personal styles in SEC staff members' reviewing of 10-K filings in terms of remediation costs, contents of comment letters, and the financial reporting quality of the firms being reviewed. Cassell et al. (2013) measure remediation costs of SEC comment letters through the number of rounds of communication the firm must go through with the SEC, as well as the time it takes to complete the review process. When we go from the staff member at the 25th percentile to the staff member at the 75th percentile, the number of rounds increases by 52%, and the length of the review process increases by 142%. These statistics demonstrate that individual SEC staff members play an important role in determining remediation costs. Simply put, some staff members are substantially tougher than others.

We refrain from making normative judgments on the desirability of tough SEC staff members from the perspective of maximizing shareholder value. On the one hand, tough SEC staff members may increase firm value by improving the firm's financial reporting quality and therefore lowering its information asymmetry and cost of capital; on the other hand, they may reduce firm value by directing the time and efforts of the management away from its focus on running the business.¹⁰

We continue to investigate the contents of the SEC's comment letters by analyzing the topics raised in the letters. Following Cassell et al. (2013), we use the total number of topics raised in the comment letters to proxy for their contents. We expand the scope of enquiry by considering the

⁹ Specifically, we randomize the staff-firm pairings so that each SEC staff is paired with a firm-year to which she does not issue comment letters. We then estimate our fixed-effects model using the randomized data. We repeat this procedure 1,000 times. As the randomly matched staff-firm-year data are not expected to generate significant results, the empirical distribution of the statistics generated from the 1,000 repetitions can be used to assess whether the test statistics are well specified. We find that the percentage of F-statistics that are significant at the 1 percent (5 percent, 10 percent) level is only slightly different from 1 percent (5 percent, 10 percent) for the majority of our dependent variables. This finding lends support to the notion that our test statistics are well specified.

¹⁰ In untabulated tests, we regress each measure of financial reporting quality (discretionary accruals, F-score, Fog index and the filing size) on either measure of remediation cost, with our standard control variables included. We find that the relationship between the financial reporting quality measure and the remediation cost measure is statistically insignificant with the exception of the positive relationship between the size of the filing and the number of rounds.

emphases of the letters. Cassell et al. (2013) classify the topics raised by the SEC’s comment letters into six categories: Accounting Disclosure, Internal Control Disclosure, Management Discussion and Analysis (MD&A), Regulatory Filing, Risk Factor Disclosure, and Other Disclosure. We find that when we go from the staff member at the 25th percentile to the staff member at the 75th percentile, the number of topics raised increases by 51%, the emphasis on Accounting Disclosure rises by 38%, and the emphasis on MD&A is elevated by 30.8%. We also find substantial staff fixed effects when we examine the emphases within the subcategories of the Accounting Disclosure category. Overall, our results suggest that individual SEC staff members have their own “pet” topics.

Given prior evidence that SEC comment letters shape firms’ disclosures, we investigate whether firms’ financial reporting quality is affected by staff members’ personal styles. Our measures of financial reporting quality include discretionary accruals (a measure of earnings management), F-scores (a measure of fraudulent reporting), the size of 10-K filings (a measure of comprehensiveness) and the Fog index (a measure of report readability).¹¹ Together, these measures capture different aspects of firms’ disclosures, which have been widely studied in prior literature (Dechow, Ge, Larson, & Sloan, 2011; Dechow, Ge, & Schrand, 2010; Loughran & McDonald, 2014, 2016). We find that the F-test on the joint significance of SEC staff fixed effects is statistically significant in all regressions. When we go from the staff member at the 25th percentile to the staff member at the 75th percentile, discretionary accrual is higher by 5.7% of total assets, the F-score is higher by 0.184 (i.e., the probability of misstatement increases by 18.4%), the size of the filing increases by 35%, and the Fog index increases by 1.35 (i.e., an additional 1.35 years of education is required to have an equal level of understanding of the filings reviewed by an SEC staff member at the 75th percentile and the filings reviewed by the one at the 25th percentile). These results suggest that personal styles of SEC staff members have an economically meaningful impact on firms’ financial reporting quality.

¹¹ We use an alternative measure of financial reporting quality – disaggregation level of accounting data, that has been introduced by Chen, Miao, and Shevlin (2015), to double check whether SEC staff members’ styles have an impact on firms’ disclosure quality. We obtain similar inferences from this alternative measure.

We conduct three robustness checks. The SEC's review process is the responsibility of eleven offices of the SEC's Division of Corporation Finance (DCF), and each office is headed by one Assistant Director and at least two Accounting Branch Chiefs. We examine whether our results are driven entirely by heads of offices. Specifically, we partition individual staff dummies into two groups: heads and non-heads, and perform F-tests for the two groups separately. If SEC staff member fixed effects are entirely due to personal styles of office heads, we expect that the F-test on non-heads will yield insignificant results. Our results contradict this expectation, suggesting that the personal styles of non-head SEC staff members are not overshadowed by the personal styles of heads.

In addition, remediation costs, contents of SEC comment letters and firms' financial reporting quality may be determined by the CEO. While this concern is alleviated by our control of firm fixed effects, we nevertheless consider this possibility by adding CEO fixed effects to our regression models. We find that SEC staff member fixed effects remain significant in all of our analyses, suggesting that our findings cannot be attributed to the matching between SEC staff members and managers.

Finally, we conduct falsification tests to establish causality between SEC staff members and the review process. Specifically, we identify firm-years in which the reviewing staff member changes. Let's say Firm XYZ is reviewed by SEC staff member A before 2011 and by staff member B thereafter. We regress measures of remediation cost, comment letter contents and financial reporting quality in the years prior to the switch (i.e., the years before 2011) on the fixed effects of the subsequent SEC staff member (i.e., the dummy for B). If the results are driven by SEC staff member fixed effects representing non-time-varying firm characteristics, such as firm or industry, we expect SEC staff fixed effects to remain significant. If, however, the results reflect the causal influence of SEC staff members on the SEC's review process, we expect staff fixed effects to be insignificant, since the subsequent reviewer is unlikely to influence earlier outcomes. Our results indicate that SEC staff fixed effects are insignificant in the falsification tests, which lends support to the notion that SEC staff members' personal styles have a causal effect on the review process.

We next attempt to shed light on the “black box” of SEC staff member fixed effects. We are interested in examining the roles played by gender, age, professional qualifications and work experience. We manually collect information on SEC staff members by searching for their LinkedIn pages and extract relevant data. We are able to collect information for 66 SEC staff members, reducing the number of usable observations to 5,101. Our analyses yield two interesting findings.

First, females make tougher reviewers. Compared to firms whose reviewers are males, firms reviewed by females must go through 17% more rounds and spend 20% more days in responding to the comments. Prior literature has shown that females tend to be more risk-averse than males (Borghans, Heckman, Golsteyn, & Meijers, 2009; Eckel & Grossman, 2008; Jianakoplos & Bernasek, 1998). One explanation for this finding is that aversion to risk leads to higher requirements for firms to successfully address female reviewers’ comments.

Second, professional qualifications matter. Specifically, we find that SEC staff members with CPA qualifications are more likely to emphasize accounting disclosures in their comment letters, and firms being reviewed by staff members with CPA qualifications file more truthful financial reports (lower F-scores). This is consistent with prior literature suggesting that professional qualifications and prior work experience shape individuals’ choices (De Franco & Zhou, 2009; Finkelstein & Hambrick, 1996; Gintis & Khurana, 2008).

Our study contributes to three different literature streams. It contributes to the stream of literature that documents the importance of idiosyncratic factors in decision making. Prior studies have demonstrated that managers have individual styles, and such styles have a substantial impact on firms’ major decisions (Bertrand & Schoar, 2003; Ewens & Rhodes-Kropf, 2015; Gao et al., 2016; Ge et al., 2011; Graham et al., 2012). While managers play an important role in the capital markets, so do regulators. Our study therefore marks a substantial expansion in this area of research. We add to the literature by showing that despite institutional settings designed to ensure consistent enforcement of regulations, individual SEC staff members have their own styles.

Second, this study contributes to the stream of literature that examines SEC regulations and, more specifically, SEC comment letters. As previously discussed, uniform enforcement pre-empts fairness concerns and is essential to the effectiveness of regulations. However, we demonstrate that SEC staff members have their own personal styles, and these unique styles have a substantial impact on the outcome of the SEC's review process. Our results imply that the SEC may need to consider taking action to achieve the objective of uniform enforcement.

Third, this study contributes to the stream of literature that examines the determinants of firms' accounting quality. Prior research has shown that strong performance, low leverage, the use of principles-based accounting principles, effective internal control procedures, greater audit efforts and the absence of capital-raising activities are positively associated with earnings quality (Barth, Landsman, & Lang, 2008; Caramanis & Lennox, 2008; DeFond & Jiambalvo, 1994; DeFond & Park, 1997; Doyle, Ge, & McVay, 2007; Teoh, Welch, & Wong, 1998).¹² We contribute to this stream of literature by showing that firms' accounting quality is also shaped by the individual SEC staff member who reviews the firm's 10-K filings.

The remainder of the study is organized as follows. Section 2 reviews prior literature on the SEC and its regulations, discusses institutional background, and develops hypotheses. Section 3 covers our research design. Section 4 reports the empirical results. Section 5 concludes.

2. Literature review, institutional background and hypotheses development

2.1. Literature review on the SEC and SEC regulations

The SEC is an important regulator over capital markets in the U.S., and many studies have attempted to shed light on the functions as well as the effectiveness of the SEC.

Kedia and Rajgopal (2011) hypothesize that constraints facing the SEC affect the SEC's decisions to carry out enforcement actions on firms. Consistent with the resource-constrained view, the

¹² Interested readers can refer to Dechow et al. (2010) for a more complete review of the literature.

SEC is more likely to investigate firms located closer to its offices. Correia (2014) offers evidence that firms with political connections are less likely to be involved in SEC enforcement actions, and if they are prosecuted, they face lower penalties. Her results are consistent with the idea of regulatory capture. DeHaan, Kedia, Koh, and Rajgopal (2015) investigate the consequences of the "revolving door" for trial lawyers at the SEC's enforcement division, and contrary to popular beliefs, the "revolving door" phenomenon seems to help rather than hurt the SEC in its enforcement activities. Heese, Khan, and Ramanna (2017) report that politically connected firms are subject to stricter enforcement actions by the SEC (greater likelihood of receiving comment letters, and more extensive issues discussed), which is inconsistent with the notion of regulatory capture.

SEC regulations have a profound impact on firms, and they have received academic attention. Regulation Fair Disclosure is the topic of investigation in the works of Heflin, Subramanyam, and Zhang (2003); Eleswarapu, Thompson, and Venkataraman (2004); Ahmed and Schneible (2007); and Gomes, Gorton, and Madureira (2007). Zhang and Zheng (2011) examine Regulation G, while Fang, Huang, and Karpoff (2016) study Regulation SHO. Results from these studies are mixed as to whether SEC regulations yield their intended consequences.

Recent literature exhibits an interest in SEC comment letters. Cassell et al. (2013) study the determinants and consequences of receiving SEC comment letters. Johnston and Petacchi (2017) examine the contents and consequences of SEC comment letters. Bens et al. (2016) investigate the role of SEC comment letters in resolving uncertainty about firms' fair value estimates. Dechow, Lawrence, and Ryans (2016) show that SEC comment letters contain material information that can affect security pricing. Kubick, Lynch, Mayberry, and Omer (2016) find that firms decrease their tax avoidance after receiving tax-related SEC comment letters. Cunningham et al. (2016) report that firms reduce accrual-based earnings management after receiving SEC comment letters, while Li and Liu (2017) find that IPOs receiving SEC comment letters have lower valuations.

2.2. Institutional background

The Sarbanes-Oxley Act of 2002 requires the SEC to review an SEC registrant's filings at least once every three years. When an SEC staff member deems a filing to be materially deficient, or when she requires further clarification from a firm, she will issue a comment letter to the firm. The firm is required to respond within ten days. Given the authority vested in the SEC, corporation managers take great care in addressing the SEC's comments. The firm's response letter generally offers explanations, and, if appropriate, discusses how the firm will amend its current or future filings in accordance with the comments. One or more rounds of letter exchanges ensue until the staff member is satisfied with the firm's responses and issues a "no further comment" letter.

Dechow et al. (2016) show that SEC comment letters are predominantly related to firms' annual and quarterly financial reports (Form 10-Ks and Form 10-Qs), while other non-routine transactional filings, such as registration and prospectus filings, receive less attention. Because we are interested in financial reports, we focus on SEC comment letters on Form 10-Ks.

Reviews of filings are conducted by the Division of Corporation Finance (DCF). The DCF has eleven offices that implement the filing review process. Listed firms are assigned to an office based on their four-digit SIC code.¹³ The eleven DCF offices are as follows: Healthcare & Insurance; Consumer Products; Information Technologies & Services; Natural Resources; Transportation & Leisure; Manufacturing & Construction; Financial Services; Real Estate & Commodities; Beverages, Apparel & Mining; Electronics & Machinery; and Telecommunications. Each office is staffed with 25 to 35 professionals and is headed by one Assistant Director and at least two Accounting Branch Chiefs.¹⁴ Firms sharing the same three-digit SIC codes are typically assigned to the same office, while firms with the same two-digit SIC code may be allocated to different offices.

Given that firms from the same industry are assigned to the same office, and the same firm may be allocated to the same staff member for reviews, SEC staff member fixed effects may represent a

¹³ In rare cases, a firm's filing may be reviewed by a different office, such as when the filing is associated with a transaction that pertains to another office's area of expertise or if the Division is conducting targeted reviews of specific disclosure items (Blackburne, 2014).

¹⁴ Please refer to <https://www.sec.gov/divisions/corpfin/cffilingreview.htm> for complete details.

manifestation of industry fixed effects or firm fixed effects.¹⁵ We address this concern by including firm fixed effects in the model, which effectively controls for industry fixed effects, since firms usually do not change their industry membership. Another concern is that our results may be due to the effect of a specific SEC office. We observe that for each office, there are at least two different staff members signing comment letters every year, which alleviates the concern that we are simply capturing the effect of the SEC office. Furthermore, given that offices are delineated along industry lines, the use of firm fixed effects, which effectively controls for industry membership, helps to alleviate the concern that our results are attributable to the idiosyncrasies of SEC offices.

The DCF states on its website: “In its filing reviews, the Division concentrates its resources on critical disclosures that appear to conflict with Commission rules or the applicable accounting standards and on disclosures that appear to be materially deficient in explanation or clarity.” The scope of the reviews may be: 1) a full cover-to-cover review, where the entire filing is examined; 2) a review where the staff focus on financial statements and related disclosures, such as Management’s Discussion and the Analysis of Financial Conditions; and 3) a targeted review where the staff focus on selected items in the filing. To uphold the integrity of the review process, the Division does not disclose the criteria it uses to select firms to review.

We deem the person who signs the comment letter as the individual who is responsible for the comments. We conduct textual analyses to identify the official designation of the signing person. We find that virtually all professionals within the DCF office can sign comment letters. Although the heads of the office (accounting branch chiefs and assistant directors) sign the majority of letters, about 32% of letters are signed by other staff members, including staff accountants and staff attorneys. Our subsequent analysis documents significant personal styles for SEC professionals who are not heads of the office.

¹⁵ We investigate whether there is fixed matching between a firm and a staff member. The statistics show that the likelihood of a firm being assigned to the same SEC staff twice in a row is 42%; that is, the majority of firms are likely reviewed by a different SEC staff member the next time. This finding somewhat alleviates the concern.

2.3. Hypotheses development

Do SEC staff members exhibit their own personal styles when enforcing security regulations? The answer to our research question is far from obvious. On the one hand, two powerful arguments support a negative answer. First, Lieberman and O'Connor (1972) and Hannan and Freeman (1984) show that individuals' choices are limited by environmental and organizational constraints, such as standard procedures and norms. The SEC has taken measures to ensure consistency in reviewing filings. A typical SEC filing review involves one examiner and one reviewer. The examiner is responsible for offering comments to firms, while the reviewer reads the filing and the comments proposed by the examiner to achieve consistency in comments. In addition, the SEC regularly publishes Staff Accounting Bulletins to reflect its official views regarding accounting-related disclosure practices. These Bulletins serve as guidance for staff members in reviewing filings. Furthermore, the GAO (2013) reports that the DCF conducts internal supervisory control activities to ensure uniformity in reviewing SEC filings. These activities include archiving all reviews and related documents, as well as regular meetings among SEC staff members. The archived documents serve as benchmarks for later reviews, while regular meetings encourage the sharing of information and help to standardize the practices of individual staff members. These measures taken by the SEC reduce the chances of idiosyncratic influence. Second, the homogeneity of SEC staff members hampers idiosyncratic behaviour. Hitt and Tyler (1991) and Hambrick (2007) argue that the socialization and selection process limits the heterogeneity of top managers. Given the job requirements, almost all DCF staff members are either accountants or lawyers, and they typically have college degrees. This similarity in educational and professional backgrounds promotes homogeneity in reviewing filings.

On the other hand, Hambrick and Mason (1984) propose the *upper echelons theory*, which suggests that decisions are affected by individual-specific factors. The impact of idiosyncratic factors is especially meaningful in complex and ambiguous situations, where the optimal solution is not easily defined. In these situations, decision makers operate within bounds of rationality, and their decisions can be influenced by their own experiences and values (Finkelstein & Hambrick, 1996; Hambrick, 2007; Hambrick & Mason, 1984). The upper echelons theory is well supported by empirical results.

Prior studies demonstrate that managers have individual styles, and such styles have a substantial impact on firms' investment and financing decisions, disclosures, financial reporting policies, and tax avoidance (Bamber et al., 2010; Dejong & Ling, 2013; Dyreng et al., 2010; Ge et al., 2011; Yang, 2012). In the SEC's filing review setting, the goal is to identify circumstances where improvement can be made in the filings' expositional clarity and compliance with SEC rules and accounting standards. This presents a complex and ambiguous situation, where subjective assessment is required and individual attributes can play an important role. For example, a staff member with many years of accounting experience may find the firm's disclosure of accounting policies sufficient, while another staff member with less accounting experience may demand more disclosures from the firm. In summary, whether SEC staff members exhibit personal styles in reviewing SEC filings is an open empirical question.

If SEC staff members exhibit personal styles in reviewing firms' filings, some staff members may be more demanding on firms than others (due to personal attributes, such as risk aversion), resulting in consistently higher remediation costs. Our first hypothesis (stated in the alternative form) is as follows.

H1: The styles of SEC staff members affect remediation costs.

When reviewing filings, staff members are required to identify areas where there is a lack in clarity and in compliance with regulations. Because SEC staff members have different levels of experience and familiarity with each topic, they may choose to focus on areas in which they have comparable advantage, resulting in substantial differences in the contents of their comment letters. This leads to H2, which is stated in the alternative form.

H2: The styles of SEC staff members affect the contents of SEC comment letters.

Several studies have documented the impact of SEC comment letters on firms' financial reporting. Bozanic, Dietrich, and Johnson (2014) reveal that firms usually modify their annual reports according to intentions expressed in the SEC's comment letters. They also find that disclosure changes prompted by the SEC's comment letters are associated with a decrease in information asymmetry and

an increase in media and analyst following. Johnston and Petacchi (2017) find that firms frequently revise their financial statements after receiving SEC comment letters. Once comment letter issues are resolved, the adverse selection component of the bid-ask spread decreases, while Earnings Response Coefficients (ERCs) increase. Bens et al. (2016) document that after firms receive SEC comment letters focusing on their fair value disclosure policies, uncertainty regarding these firms' fair value estimates is reduced, compared to the pre-letter period. Their findings highlight the role played by the SEC's comment letters in fair value disclosures. Brown et al. (2016) find that firms modify risk factor disclosures in subsequent years when their industry peers receive SEC comments on these disclosures, suggesting a spillover effect. Cunningham et al. (2016) show that after receiving SEC comment letters, firms reduce their accrual-based earnings management as a result of heightened monitoring from the SEC. Overall, prior literature suggests that the SEC's comment letters have a substantial impact on firms' financial reporting.

If SEC staff members exhibit personal styles in their comment letters, we expect that their styles will in turn influence firms' financial reporting. Our H3 is stated in the alternative form.

H3: The styles of SEC staff members affect the financial reporting quality of those firms receiving SEC comment letters.

3. Research design

3.1. Sample formation and variable definition

Since SEC comment letters became publicly available on EDGAR in August 2004, 2005 is the starting year of our sample, and the sample covers the period spanning from 2005 to 2015.

We obtain comment letter data from Audit Analytics Comment Letter Conversation database, which organizes the exchange of comment letters between a firm and the SEC into conversations. We restrict the sample to conversations attributable to only one SEC staff member to more clearly identify

the SEC staff member's individual style effect. 72% of conversations in the database satisfy this requirement. One example of such a comment letter is provided in Figure 1.

We then merge the remaining comment letter conversations with accounting variables from Compustat, stock prices from CRSP, executive information from Execucomp, 10-Ks (readability) from the SEC's EDGAR, and auditor information from Audit Analytics Audit & Compliance database. We then proceed to compute all the dependent and independent variables. After requiring all variables to be non-missing, we obtain the final sample of 14,207 firm-year observations.

We use two variables to reflect firms' remediation costs: *round* – the number of rounds of exchanges between the SEC and the firm (from the first letter to the “no further comment” letter), and *time* – the number of days between the first letter and the “no further comment” letter. To examine comment letter contents, we use the following variables.¹⁶ *Topic* is the number of topics raised in the comment letter conversation as defined by Audit Analytics. Following Cassell et al. (2013), we classify the topics raised by the SEC's comment letters into six categories: Accounting Disclosure, Internal Control Disclosure, Management Discussion and Analysis, Regulatory Filing, Risk Factor Disclosure, and Other Disclosure. We measure the emphasis on each category by scaling the number of topics in the category by the total number of topics raised. We have six variables corresponding to the emphasis in each of the six categories: *emp_accdis* is the emphasis on Accounting Disclosure (computed as the number of topics in the Accounting Disclosure category divided by the total number of topics), *emp_intcon* is the emphasis on Internal Control, *emp_mda* is the emphasis on MD&A, *emp_regfil* is the emphasis on Regulatory Filing¹⁷, *emp_risk* is the emphasis on Risk Factor Disclosure, and *emp_other* is the emphasis on Other Disclosure.

Emphases on subcategories in Accounting Disclosure are measured similarly. *emp_acccore* measures the emphasis on core earnings and it is computed as the number of Core Earnings topics divided by the total number of topics in the Accounting Disclosure category. *emp_accnon*,

¹⁶ We only consider comment letters written by SEC staff by keeping only those comment letters that are addressed to firms. Firms' responses are not considered.

¹⁷ Regulatory Filings include specific Reg S-K and Reg S-X disclosure requirements, among others.

emp_accclass and *emp_accfv* are computed similarly and they respectively measure the emphases on Non-Core Earnings, Accounting Classification, and Fair Value. Please refer to Appendix B regarding how we classify Accounting Disclosure into four subcategories.

Finally, to examine firms' financial reporting quality, we employ four measures. *dacc* is the level of discretionary accrual, calculated based on the cross-sectional performance-matched modified Jones model (Kothari, Leone, & Wasley, 2005), *fscore* is the measure of financial misstatement (Dechow et al., 2011), *file_size* is the natural logarithm of the size of 10-K filing, and *fog_index* is the measure of readability of the 10-K filing (Loughran & McDonald, 2016). Following Cunningham et al. (2016), we measure *dacc* and *fscore* in the following year, i.e., $t+1$, to address the concern that firms may not change their accounting practices and financial figures immediately in the year they receive the comment letter.¹⁸

As required by the Sarbanes-Oxley Act of 2002, the SEC must undertake some level of review of each reporting company at least once every three years. Hence, not every company is issued one comment letter every year. For example, a company might be issued a comment letter by Adam in 2007 and then by Brian in 2010. In our study, we assume that in 2008 and 2009, the company's accounting is also "affected" by Adam, i.e., we fill in the missing years with the name of the most recent staff member.¹⁹

3.2. Empirical methods

We use the following model to test whether SEC staff members exhibit individual styles:

$$Outcome_{it} = Firm_i + Year_t + Staff_j + Control\ Variables + \varepsilon_{it} \quad (1)$$

¹⁸ We obtain similar results if we examine the two measures in the current year.

¹⁹ We believe the backfilling of data is appropriate as firms have no incentives to change their disclosures back to original positions as their future filings might be reviewed by the same staff member in the future. Furthermore, this practice just adds more noise to the variable measurement, which biases against finding significant results. We have also done a sensitivity check by removing the backfilled data and we get similar results.

Where $Outcome_{it}$ is the outcome variable (remediation cost, comment letter contents, and financial reporting quality) in year t for firm i (except $dacc$ and $fscore$); $Firm$ stands for firm fixed effects, $Year$ is the year fixed effects, and $Staff$ is SEC staff member fixed effects.

Following Cassell et al. (2013), we control for the following auditor characteristics: big_n is an indicator variable for Big N auditor; $second_tier$ is an indicator variable for second-tier auditor; $audtenure$ is the tenure of the current auditor with the firm (measured in years); $auditordismissed$ is an indicator variable for the firm's dismissal of the auditor; and $auditorresigned$ is an indicator variable for the resignation of the auditor²⁰. In addition to these auditor characteristics, we control for the following firm characteristics: ceo_chair (an indicator variable for the CEO that is also the chair of the board of directors), ceo_tenure (the tenure of the CEO with the firm, measured in years), cfo_tenure (the tenure of the CFO with the firm, measured in years), m_weak (an indicator for firms with material weaknesses in their internal controls), $restate$ (an indicator variable for financial restatements), $lnmarketcap$ (the natural logarithm of a firm's market capitalization), $loss$ (an indicator variable for reporting losses), m_a (an indicator variable for firms engaging in merger & acquisition activities), $restructuring$ (an indicator variable for firms that undergo restructuring), $salesgrowth$ (the percentage change in revenue from the prior year), $segments$ (the number of business segments reported), $bankruptcyrank$ (the decile rank of a firm's bankruptcy risk, measured by Altman's Z score), and $highvolatility$ (an indicator for firms in the highest quartile of stock return volatility in the prior 12 months). For details on how we construct the variables, please refer to Appendix A.

4. Empirical results

4.1. Descriptive statistics

We report descriptive statistics in Table 1. The mean values of $round$ and $time$ indicate that on average, 4.7 rounds of exchanges occur before the SEC staff member closes the dialogue, and the entire

²⁰ The information on the dismissal and resignation of an auditor is obtained from the Audit Analytics Auditor Changes database.

process takes 69 days. As for comment letter contents, on average, SEC staff members raise 10 topics for discussion. 23.1% of the topics are in the Accounting Disclosure category, 1.4% are in the Internal Control category, 27.4% are related to MD&A issues, 17.2% are related to Regulatory Filings, 2.4% are related to Risk Factors, and 28.4% are related to Other Issues. The majority of topics in the Accounting Disclosure category are related to earnings. Specifically, 18.4% of these topics are about Core Earnings, and 40.4% are about Non-Core Earnings. The mean values of *emp_accclass* and *emp_accfv* are 11.5% and 7.5%, respectively. Turning to financial reporting quality measures, the mean values of *dacc*, *fscore*, *file_size* (in Mb), and *fog_index* are -0.005, 0.975, 8.814 and 16.06, respectively. About 74.6% of our sample observations are big-N auditor clients, and 9% are clients of second-tier auditors. On average, auditor tenure is 7.5 years. Note that all tenure variables (*audtenure*, *ceo_tenure*, *cfo_tenure*) are measured in the sample. That is, they represent the number of years of the relationship, starting from the first year the relationship is observed in our sample between 2005 and 2015. 10.7% of firms in our sample restate their earnings, while 8.4% report material internal control weakness. The mean value of *lnmarketcap* is about 6.4. 29% of observations report accounting losses, 3.6% engage in M&A deals, and 1.6% undergo restructuring. The mean value of sales growth is about 25%. This is likely driven by outliers, since the median value is only 6.2%. On average, firms have three reporting segments. The decile ranking of bankruptcy risk averages 4.9. 7.9% of firms have a CEO who is also chairman of the board, and the mean value of CEO tenure and CFO tenure are 3 and 1.9 years, respectively. 31% of our sample firms have high return volatility, 5% dismiss their auditors, and auditor resignations are seen in 1.2% of our sample.

Our descriptive statistics are largely consistent with prior literature. For example, Cassell et al. (2013) report that in their sample, the mean value of *round* is 2.75, the mean of *time* is 80 days, the mean of *topic* is 11.7, the mean of *big_n* is 0.781, the mean of *m_weak* is 0.066, the mean of *loss* is 0.249, and the mean of *segments* is 2.053. The corresponding values in our study are similar. Ge et al. (2011) report a mean of -0.012 for their measure of discretionary accrual and 1.082 for the F-score in their sample. The mean of *file_size* (in Mb) in our sample is 8.81, which is higher than the mean of 2.51 reported in Loughran and McDonald (2014). However, our sample covers firms that have been issued

comment letters, and it could be that these firms are more complex than the general population of firms covered in Loughran and McDonald (2014). Additionally, we cover a more recent sample (2005 to 2015) than Loughran and McDonald (2014). The mean of *fog_index* is 16.06 in our sample, which is slightly lower than the reported mean of 18.94 in Loughran and McDonald (2014).

4.2. Remediation costs (H1)

Panel A of Table 2 presents the results from the analyses of remediation costs. For each variable, the first row reports the adjusted R^2 from a baseline regression without SEC staff fixed effects. The second row reports the F-statistics and the associated p-value from the test of the joint significance of SEC staff fixed effects, and the adjusted R^2 after we add SEC staff dummies to the regression. Because *round*, *time* and *topic* represent count data, we take the natural logarithm of them in our regressions.

The first remediation cost proxy is *round*. The adjusted R^2 in the baseline regression is 66.4%. When we include SEC staff fixed effects, the adjusted R^2 increases to 69.2%. While the increase in the adjusted R^2 is 2.8% (4.2% in percentage terms), which seems small, we must keep in mind that the original model includes firm fixed effects, year fixed effects, and another 18 control variables, and the room for additional explanatory power is rather limited. The F-statistic is 8.46, significant at less than the 1% level, rejecting the null hypothesis that SEC staff members have no impact on the number of rounds.

The second remediation cost proxy is *time*. The adjusted R^2 in the baseline regression is 67.3%. When we include SEC staff fixed effects, the adjusted R^2 increases to 70.4%. The F-statistic is 9.34, significant at less than the 1% level, suggesting that the personal styles of SEC staff members affect the length of the SEC's review process.

To assess the economic significance of SEC staff fixed effects on remediation costs, we report the mean, median, 25th percentile and 75th percentile of the estimated SEC staff fixed effects in Panel B of Table 2. The first row (*round*) reports that after adjusting for log-transform of the dependent variable, the interquartile range is 52%, suggesting that the SEC staff member at the 75th percentile requires 52%

more rounds than the staff member at the 25th percentile. The second row (*time*) shows that the SEC staff member at the 75th percentile requires 142% more days than the staff member at the 25th percentile to close the review process.

Overall, our results suggest that individual SEC staff members exert substantial influence over firms' remediation costs.

4.3. Comment letter contents (H2)

Panel A of Table 3 presents the results from the analyses of comment letter contents. The first comment letter content proxy is *topic*. The adjusted R² in the baseline regression is 66.1%. When we include SEC staff fixed effects, the adjusted R² increases to 74.1%. The F-statistic is 26.09, which is significant at less than the 1% level, suggesting that the personal styles of individual SEC staff members determine the number of topics raised in the review process.

Turning to the emphases on different topics, regarding *emp_accdis*, the adjusted R² in the baseline regression is 61.4%. When we include SEC staff fixed effects, the adjusted R² increases to 68.9%. The F-statistic is 22.69, which is significant at less than the 1% level, suggesting that the personal styles of SEC staff members affect the emphasis on Accounting Disclosure.

The second emphasis proxy is *emp_intcon*. The F-statistic is 6.23, which is significant at less than the 1% level. We can reject the null hypothesis that SEC staff members have no impact on the emphasis of Internal Controls. We obtain similar results for emphases on other categories.

Turning to subcategories in Accounting Disclosure, as for *emp_acccore*, the adjusted R² in the baseline regression is 63.7%. When we include SEC staff fixed effects, the adjusted R² increases to 67.1%. The F-statistic is 9.67, significant at the 1% level, suggesting that individual SEC staff members have their own unique impact on the emphasis of Core Earnings. Results for other emphases are similar and support the notion that the personal styles of SEC staff members affect the contents of SEC comment letters.

To assess the economic significance of these findings, we report the distribution of the estimated SEC staff fixed effects in Panel B of Table 3. The first row (*topic*) reveals that the SEC staff member at the 75th percentile raises 51% more topics than the staff member at the 25th percentile (after adjusting for log transformation). The second row (*emp_accdis*) shows that the emphasis on Accounting Disclosure issues is higher by 38% when we go from the SEC staff member at the 25th percentile to the one at the 75th percentile. The interquartile range takes a value between 2.6% and 30.8% for emphases on other categories. Personal styles of SEC staff members have a substantial influence on emphases within the Accounting Disclosure category: the interquartile range is between 35.4% and 62.2%.

Overall, across all 11 measures of comment letter contents, we find consistent evidence supporting the hypothesis that the personal styles of SEC staff members shape the contents of SEC review letters.

4.4. Financial reporting quality (H3)

Panel A of Table 4 presents the results from the analyses of firms' financial reporting quality. The first financial reporting quality is *dacc*. The adjusted R² in the baseline regression is 82.6%. When we include SEC staff fixed effects, the adjusted R² increases to 82.8%. The F-statistic is 1.30, significant at the 5% level, rejecting the null hypothesis that individual SEC staff members have no impact on firms' discretionary accruals.

The second financial reporting quality we examine is *fscore*. The adjusted R² in the baseline regression is 70.7%. When we include SEC staff fixed effects, the adjusted R² increases to 71.2%. The F-statistic is 1.29, significant at the 5% level, rejecting the null hypothesis that individual SEC staff members have no impact on the F-scores of firms' financial figures.

The third financial reporting quality we examine is *file_size*. The adjusted R² in the baseline regression is 88.7%. When we include SEC staff fixed effects, the adjusted R² increases to 88.9%. The F-statistic is 1.70, significant at the 1% level, rejecting the null hypothesis that individual SEC staff members have no impact on the size of 10-Ks filed by firms.

The last financial reporting quality we examine is *fog_index*. When we include SEC staff fixed effects, the adjusted R² increases from 55.6% to 56.2%. The F-statistic is 1.21, significant at the 5% level, rejecting the null hypothesis that individual SEC staff members have no impact on the readability of 10-Ks filed by firms.

To assess the economic significance of SEC staff fixed effects, we report the mean, median, 25th percentile and 75th percentile of the estimated SEC staff fixed effects in Panel B of Table 4. The first row shows that the difference in discretionary accruals between the firm reviewed by the SEC staff member at the 75 percentile and the firm reviewed by the staff member at the 25th percentile is about 5.7% of total assets. The second row reports that the inter-quartile range on F-score is 0.184. This is economically significant given that the average F-score in our sample is only 0.975. The third row reveals that the size of the filing differs by 35% between the firm reviewed by the SEC staff member at the 75th percentile and the firm reviewed by the SEC staff member at the 25th percentile. The last row of Panel B reports that the interquartile range for the Fog index is about 1.35. This indicates that an additional 1.35 years of education is required to have an equal level of understanding of the filing reviewed by the SEC staff member at the 75th percentile and the filing reviewed by the one at the 25th percentile.

Overall, across all measures of financial reporting quality, we find consistent results that support the hypothesis that the personal styles of SEC staff members have a substantial influence on firms' financial reporting quality.

4.5. Robustness check: Heads vs Non-Heads

Each DCF office is headed by one assistant director and at least two accounting branch chiefs. Combined, they sign the majority of comment letters. We are interested in knowing whether the styles of heads overshadow the styles of other staff members. To examine this issue, we partition individual staff dummies into two groups: heads and non-heads. We then perform the F-test for the two groups separately. If SEC staff member fixed effects are entirely attributable to the personal styles of heads,

we expect that the F-test on non-heads will yield insignificant results. Our results are reported in Table 5.

Table 5 demonstrates that the F-test statistics are significant for both groups for all of the dependent variables we examine, suggesting that both heads and non-heads exhibit individual styles. Non-head SEC staff members therefore also play an important role in shaping the SEC's review process. Consistent with the notion that individuals holding leadership positions are more influential, we find that the F-statistics are higher for the head group in 15 out of the 17 dependent variables we examine.

Overall, we find no evidence that the personal styles of non-head SEC staff members are overshadowed by the personal styles of heads.

4.6. Robustness check: Controlling for CEO fixed effects

In this section, we add CEO fixed effects to our model and examine whether SEC staff fixed effects survive. We collect information on CEOs by merging the Compustat data with Execucomp, which tracks CEOs by unique identifiers. The results are reported in Table 6.

Panel A reports the test results on firms' remediation costs. The F-statistic is 6.50 for *round* and 6.33 for *time*, both significant at the 1% level. Panel B reports the test results on firms' comment letter contents. The F-statistics are significant at the 1% level for all 11 content variables we examine. Panel C reports the test results on firms' financial reporting quality. The F-statistics are significant at the 1% level for *dacc*, *fscore* and *file_size*, and at the 5% level for *fog_index*.

Overall, our results in Table 6 indicate that SEC staff member fixed effects are not subsumed by CEO fixed effects.

4.7. Robustness check: Falsification test

To conduct the falsification test, we identify changes in individual staff members who reviews a firm's SEC filings. Specifically, we examine the outcome of the SEC's review process during the years prior to the change and regress them on the indicator variable for the SEC staff member after the change. For example, let's say Firm XYZ was reviewed by SEC staff member A between 2007 and

2011, and by a different staff member, B, after 2012. We regress outcome variables between 2007 and 2011 on an indicator variable for B (“pseudo SEC staff”). If the individual SEC member has a causal influence on the review outcome, pseudo SEC staff member fixed effects should not be significant.

The results of our falsification tests are reported in Table 7. The F-statistic is never significant at the 10% level for all outcome variables we examine. This finding supports the notion that individual SEC staff members causally influence the SEC’s review process.

4.8. Staff fixed effects: Observable characteristics

In this section, we seek to shed light on the “black box” of SEC staff member fixed effects. To analyze the role of staff members’ characteristics in influencing the SEC’s review process, we replace staff member dummies with a set of variables representing staff characteristics. Following prior literature (Bamber et al., 2010; Bertrand & Schoar, 2003; Ge et al., 2011), the staff characteristics we consider include gender, age, CPA qualification, MBA degree, and SEC tenure (number of years the staff has been working for the SEC).

These characteristic are measured by the following variables: *Female* is a dummy variable that equals 1 if the SEC staff member is female, and 0 otherwise; *Age* is the biological age of the SEC staff member; we estimate it through the year in which she obtains her college degree, assuming that she obtains the degree at the age of 22; *CPA* is a dummy variable that equals 1 if the SEC staff member has obtained a CPA qualification, and 0 otherwise; *MBA* is a dummy variable that equals 1 if the SEC staff member has obtained an MBA degree, and 0 otherwise; *sec_exp* is the number of years the staff member has been working at the SEC.

We manually collect information on staff characteristics by locating staff members’ LinkedIn profile pages and extracting relevant information. An example of an SEC staff member’s LinkedIn page is shown in Figure 2 (identifying information hidden). Not all SEC staff members have a LinkedIn page, and we are only able to collect information for 66 SEC staff members, reducing the number of usable observations to 5,101 after the data are merged with our existing sample.

We report the descriptive statistics of staff member characteristics in Table 8. Panel A of Table 8 reveals that the majority of SEC staff members are male (68%). In terms of qualifications, 30% of SEC staff members have a CPA qualification, and 8% report that they have an MBA degree. The majority of staff members are in the 30–49 age group (85%), and more than half (61%) have worked at the SEC for more than 10 years.

Panel B of Table 8 reveals the correlation between these characteristics. Pearson’s correlation coefficients are below the diagonal, while Spearman’s rank correlations are above it. We find that an SEC staff member is likely to have an MBA degree if she is older and if she also holds a CPA qualification. An SEC staff member with an MBA degree tends to have longer SEC experience. Unsurprisingly, age and SEC experience are positively correlated.

Table 9 reports the regression results. Panel A reports the test results on firms’ remediation costs. In Column 1, *round* is the dependent variable, and it is positively correlated with *female* and *age* and negatively correlated with *sec_exp*. Specifically, the coefficient of *female* is 0.156, significant at the 1% level, indicating that female staff members demand about 17% more rounds before closing the review;²¹ the coefficient of *age* is 0.008, significant at the 1% level, while the coefficient of *sec_exp* is -0.005, significant at the 5% level. These findings imply that female SEC staff members and older SEC staff members require more rounds in the review process, while SEC staff members with longer tenure require fewer rounds in the review process. In Column 2, *time* is the dependent variable, and it is positively correlated with *female* and *age* and negatively correlated with *sec_exp*. Specifically, the coefficient of *female* is 0.180, suggesting that female SEC staff members take 20% more days to close the review process.

Panel B reports the test results on firms’ comment letter contents. Because there are 11 variables, for the sake of brevity, we will only discuss some outcome variables here. In Column 1, *topic* is the dependent variable. The coefficient of *mba* is -0.193, significant at the 1% level. The coefficient

²¹ Given that the dependent variable is the natural logarithm of the number of rounds, the coefficient needs to be adjusted to calculate the percentage difference in the number of rounds between males and females, i.e. $e^{0.156} - 1$. For the same reason, we interpret coefficients in a similar way when the dependent variable is *time* or *topic*.

of *female* is 0.077, significant at the 5% level, while the coefficient of *sec_exp* is 0.008, significant at the 1% level. These results suggest that MBA degree holders seem to comment on fewer topics, while female SEC staff members and SEC staff members with longer tenure comment on more topics. In Column 2, *emp_accdis* is the dependent variable. It is positively correlated with *female*, *mba*, *cpa* and *sec_exp* and negatively correlated with *age*. This implies that females, MBA degree holders, CPAs and SEC staff members with longer tenure focus more on Accounting Disclosure issues in their comment letters, while older SEC staff members focus less. In Column 8, *emp_acccore* is the dependent variable. It is positively correlated with *cpa* and *sec_exp* and negatively correlated with *age*, implying that CPAs and more experienced SEC staff members focus more on Core Earnings issues in their comment letters, while older SEC staff members focus less.

Panel C reports the test results on firms' financial reporting quality. In Column 1, *dacc* is the dependent variable, and it does not seem to be correlated with any of the staff characteristics. In Column 2, *fscore* is the dependent variable, and it is negatively correlated with *cpa*. The coefficient is -0.044, and it is statistically significant at the 5% level. This result suggests that firms reviewed by CPAs report more truthfully. In Column 3, *file_size* is the dependent variable, and it is negatively correlated with *mba*. The coefficient is -0.226, and it is statistically significant at the 5% level. In Column 4, *fog_index* is the dependent variable, and it is positively correlated with *sec_exp* and negatively correlated with *female*.²²

Two interesting results deserve further discussion. First, female staff members tend to demand more information from firms (more time, rounds and topics) to close the review process. Prior studies have documented that female CEOs are more risk averse and are less likely to engage in unethical behaviour (Barua, Davidson, Rama, & Thiruvadi, 2010; Francis, Hasan, Wu, & Yan, 2014; Huang &

²² Following Bamber et al. (2010), we also conduct an alternative research design where we regress the staff fixed effects estimated in Model 1 on the staff characteristics. As discussed in Bamber et al. (2010), this specification suffers from measurement error, as the dependent variables (SEC staff fixed effects) are estimated parameters from another regression, which can lead to outlier problems. Nevertheless, we can still replicate the main findings that female staff members are more demanding, and that staff members with CPAs focus more on accounting disclosures, and firms under their review report more truthfully.

Kisgen, 2013). It is thus possible that female SEC staff members are more risk averse and demand more information to fully address their concerns.

Second, we find that staff members with CPA qualifications tend to focus more on Accounting Disclosure, and firms reviewed by them report more truthfully. This finding is consistent with prior studies that have documented an association between professional qualifications and job performance (Aier, Comprix, Gunlock, & Lee, 2005; Bamber et al., 2010; De Franco & Zhou, 2009; Li, Sun, & Ettredge, 2010).²³

5. Conclusion

We investigate whether SEC staff members exhibit personal styles in their enforcement efforts. We choose the setting of the SEC's comment letters, because the setting allows us to identify the individual staff member responsible for the letter, it facilitates empirical analyses by providing a big panel dataset, and SEC comment letters have a profound impact on firms' financial reporting quality.

The results demonstrate that SEC staff members do have unique styles, and these styles shape remediation costs, the contents of SEC comment letters, and, ultimately, firms' financial reporting quality. Further analyses reveal that female staff members are associated with higher remediation costs, while staff members with CPA qualifications are associated with an emphasis on Accounting Disclosures and more truthful reporting by firms under their review.

It is not for us to decide which personal style is socially desirable. While tougher SEC staff members may increase firm value by improving accounting quality and lowering firms' cost of capital, they may also destroy value by forcing management to focus on comment letters instead of running the business. We are also unable to pass judgement on how much individual discretion among SEC staff members is optimal from the perspective of social welfare. Our results, however, reveal that differences across individual staff members are surprisingly large: when we go from the staff member at the 25th

²³ Interested readers can refer to Abernethy and Wallis (2018) (a review paper) for a more in-depth discussion of prior research on demographic characteristics.

percentile to the staff member at the 75% percentile, the number of rounds increases by 52%, the length of the review process increases by 142%, and the number of topics raised increases by 51% after controlling for firm fixed effects, year fixed effects and 18 other variables. From the perspective of promoting fair treatment, we believe that it is prudent for security regulators to consider whether such wide latitude is consistent with the SEC's mission and objectives. If the answer is no, the SEC should take action to ensure more consistent enforcement of relevant regulations, including the standardization of procedures and improvements in the training of staff members.

A follow-up question is whether firms understand that SEC staff members have their own unique personal styles. While this is an interesting question, it remains unclear how and to what extent firms might effectively lobby for the "appropriate" SEC staff member. Nonetheless, we searched the popular press to determine whether there is any anecdotal evidence that firms complain about unfair treatment from the SEC. We observe no such evidence. One explanation is that firms have interactions with only a very limited number of SEC staff members, effectively prohibiting them from drawing general conclusions. An alternative explanation is that firms understand that SEC staff members have personal styles, but they are afraid that their complaints of unfair treatment will result in retaliation from the SEC staff. We are unable to distinguish between the two explanations.

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Figure 1 – Extract of Comment Letter



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

March 29, 2010

By U.S. Mail and Facsimile to: (415) 975-6871

Richard D. Levy
Executive Vice President and Controller
Wells Fargo & Company
420 Montgomery Street
San Francisco, CA 94163

Dear Mr. Levy:

We are currently reviewing your Form 10-K for fiscal year ended December 31, 2009. In our effort to better understand the decisions you made in determining the accounting for certain of your repurchase agreements, securities lending transactions, or other transactions involving the transfer of financial assets with an obligation to repurchase the transferred assets, we ask that you provide us with information relating to those decisions and your disclosure.

.....
.....
.....

Please contact me at (202) 551-3492 if you have any questions.

Sincerely,

John P. Nolan
Senior Assistant Chief Accountant

Figure 2 – SEC Staff Member’s LinkedIn (Sample)

CPA

3rd

Senior Staff Accountant at U.S. Securities and Exchange Commission

Ellicott City, Maryland | Accounting

Current U.S. Securities and Exchange Commission

Previous U.S. Securities and Exchange Commission, KPMG LLP

Education University of Missouri-Columbia, College of Business

421
connections

Background



Experience

Senior Staff Accountant, Division of Corporation Finance

U.S. Securities and Exchange Commission

July 2016 – Present (6 months) | Washington D.C. Metro Area



Perform regulatory oversight and compliance of publicly registered companies, with a focus on the information technologies and services industry. Specific duties involve reviewing and analyzing SEC filings, identifying and resolving complex accounting and reporting issues, and researching and providing interpretation of regulations and statutes.

Office of the Managing Executive, Management and Program Analyst, Division of Corporation Finance

U.S. Securities and Exchange Commission

August 2013 – July 2016 (3 years) | Washington D.C. Metro Area



Worked on a variety of strategic and business management projects, with a focus on business operations, information technology and knowledge management. Collaborated with staff at all levels of the Division and Agency, including senior staff and management. Specific tasks included managing all aspects of our Division’s budget, overseeing and managing our Division’s contracts, managing Division resources and research tools for staff, managing Division communication efforts, managing the risk management process as the Division Risk Officer, working on business continuity and assisting with technology projects.

- ▶ 1 honor or award

Senior Staff Accountant, Division of Corporation Finance

U.S. Securities and Exchange Commission

July 2007 – August 2013 (6 years 2 months) | Washington D.C. Metro Area



Performed regulatory oversight and compliance of publicly registered companies, with a focus in the financial services and banking industries. Specific duties involve reviewing and analyzing SEC filings, identifying and resolving complex accounting and reporting issues, and researching and providing interpretation of regulations and statutes.

Audit Manager

KPMG LLP

August 2002 – June 2007 (4 years 11 months) | Baltimore, Maryland Area



Provided independent audit services for various clients in the non-profit, health care and financial services sectors.



Education

University of Missouri-Columbia, College of Business
Masters, Accounting
2001 – 2002



University of Missouri-Columbia, College of Business
B.S., Accounting
1997 – 2001



Activities and Societies: [Zeta Tau Alpha](#), [Delta Sigma Pi](#), [Beta Alpha Psi](#)

Park Hill High School

1993 – 1997



Organizations

Days End Farm Horse Rescue

Board of Directors
Starting January 2012

Treasurer, April 2013 to present
Assistant Treasurer, December 2012 to April 2013
Auxiliary Member, January 2012 to December 2012

Mid-Maryland Triathlon Club

Starting April 2013

University of Missouri Alumni Association, DC/Baltimore chapter

Starting August 2010

Table 1 – Descriptive Statistics

This table reports the descriptive statistics for the main variables in the analyses. The definition of each variable can be found in Appendix A.

Variable	N	mean	sd	p25	p50	p75
<i>round</i>	14,207	4.729	2.324	3	4	6
<i>time</i>	14,207	68.82	69.21	28	49	86
<i>topic</i>	14,207	10.15	5.679	6	9	13
<i>emp_accdis</i>	14,207	0.231	0.145	0.143	0.267	0.333
<i>emp_intcon</i>	14,207	0.014	0.049	0	0	0
<i>emp_mda</i>	14,207	0.274	0.150	0.143	0.250	0.364
<i>emp_regfil</i>	14,207	0.172	0.137	0	0.182	0.286
<i>emp_risk</i>	14,207	0.024	0.064	0	0	0
<i>emp_other</i>	14,207	0.284	0.114	0.222	0.286	0.333
<i>emp_acccore</i>	14,207	0.184	0.265	0	0	0.316
<i>emp_accnon</i>	14,207	0.404	0.349	0	0.429	0.667
<i>emp_accclass</i>	14,207	0.115	0.210	0	0	0.174
<i>emp_accfv</i>	14,207	0.075	0.129	0	0	0.125
<i>dacc_{t+1}</i>	14,207	-0.005	0.246	-0.082	-0.004	0.073
<i>fscore_{t+1}</i>	14,207	0.975	0.600	0.490	0.865	1.330
<i>file_size (in Mb)</i>	14,207	8.814	10.851	1.582	4.036	13.30
<i>fog_index</i>	14,207	16.06	3.821	14.04	15.11	17.26
<i>big_n</i>	14,207	0.746	0.436	0	1	1
<i>second_tier</i>	14,207	0.090	0.287	0	0	0
<i>audtenure</i>	14,207	7.516	3.682	5	7	10
<i>restate</i>	14,207	0.107	0.310	0	0	0
<i>m_weak</i>	14,207	0.084	0.278	0	0	0
<i>lnmarketcap</i>	14,207	6.364	2.027	4.958	6.353	7.758
<i>loss</i>	14,207	0.291	0.454	0	0	1
<i>m_a</i>	14,207	0.036	0.185	0	0	0
<i>restructuring</i>	14,207	0.016	0.126	0	0	0
<i>salesgrowth</i>	14,207	0.248	6.243	-0.031	0.062	0.176
<i>segments</i>	14,207	2.897	2.171	1	2	4
<i>bankruptcyrank</i>	14,207	4.873	2.384	3	5	7
<i>ceo_chair</i>	14,207	0.079	0.270	0	0	0
<i>ceo_tenure</i>	14,207	3.018	3.734	0	1	6
<i>cfo_tenure</i>	14,207	1.873	2.430	0	1	3
<i>highvolatility</i>	14,207	0.310	0.463	0	0	1
<i>auditordismissed</i>	14,207	0.050	0.218	0	0	0
<i>auditorresigned</i>	14,207	0.012	0.108	0	0	0

Table 2 – Effects of SEC Staff Members on Remediation Costs (H1)

Panel A reports the test results for SEC staff fixed effects on firms’ remediation costs. The remediation cost proxies are number of rounds (*round*), and time to close (*time*). For each dependent variable, the first row reports results without SEC staff member fixed effects, and the second row reports results when we include the fixed effects. We report the test results of joint significance for the staff fixed effects. We report the F-statistic, and in parentheses, the p-value (two-tailed) and number of constraints. Also reported are the number of observations (N) and adjusted R² (Adj. R²) for each regression. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, *auditorresigned*. All variables are defined in Appendix A. Panel B reports the distribution of the staff fixed effects from the regressions in Panel A. The interquartile range is adjusted for dependent variables for which we use the log values (*round* and *time*).

Panel A: Remediation Costs						
	F-test on SEC staff fixed effects			N	Adj. R² (%)	
<i>round</i>				14,207	66.4	
<i>round</i>	8.46	(0.00, 134)		14,207	69.2	
<i>time</i>				14,207	67.3	
<i>time</i>	9.34	(0.00, 134)		14,207	70.4	

Panel B: Distribution of SEC Staff Fixed Effects						
Variable	N	mean	p25	p50	p75	Interquartile range (Adjusted for log transformation)
<i>round</i>	135	-0.107	-0.309	-0.083	0.112	52%
<i>time</i>	135	-0.168	-0.607	-0.116	0.278	142%

Table 3 – Effects of SEC Staff Members on Comment Letter Contents (H2)

Panel A reports the test results for SEC staff fixed effects on firms’ comment letter contents. The proxies are number of topics (*topic*), percentage of topics about Accounting Disclosure (*emp_accdis*), percentage of topics about Internal Controls (*emp_intcon*), percentage of topics about MD&A (*emp_mda*), percentage of topics about Regulatory Filings (*emp_regfil*), percentage of topics about Risk Factor disclosure (*emp_risk*), percentage of topics about Other disclosure (*emp_other*), percentage of accounting topics about Core Earnings issues (*emp_acccore*), percentage of accounting topics about Non-Core Earnings issues (*emp_accnon*), percentage of accounting topics about Classification (*emp_accclass*), and percentage of accounting topics about Fair Value (*emp_accfv*). For each dependent variable, the first row reports results without SEC staff member fixed effects, and the second row reports results when we include the fixed effects. We report the test results of joint significance for the staff fixed effects. We report the F-statistic, and in parentheses, the p-value (two-tailed) and number of constraints. Also reported are the number of observations (N) and adjusted R² (Adj. R²) for each regression. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, *auditorresigned*. All variables are defined in Appendix A. Panel B reports the distribution of the staff fixed effects from the regressions in Panel A. The interquartile range is adjusted for dependent variables for which we use the log values (*topic*).

Panel A: Comment Letter Contents			
	F-test on SEC staff fixed effects	N	Adj. R² (%)
<i>topic</i>		14,207	66.1
<i>topic</i>	26.09 (0.00, 134)	14,207	74.1
<i>emp_accdis</i>		14,207	61.4
<i>emp_accdis</i>	22.69 (0.00, 134)	14,207	68.9
<i>emp_intcon</i>		14,207	66.9
<i>emp_intcon</i>	6.23 (0.00, 134)	14,207	68.7
<i>emp_mda</i>		14,207	60.2
<i>emp_mda</i>	26.41 (0.00, 134)	14,207	69.3
<i>emp_regfil</i>		14,207	62.8
<i>emp_regfil</i>	12.95 (0.00, 134)	14,207	67.8
<i>emp_risk</i>		14,207	59.5
<i>emp_risk</i>	10.99 (0.00, 134)	14,207	64.1
<i>emp_other</i>		14,207	60.1
<i>emp_other</i>	26.65 (0.00, 134)	14,207	69.4
<i>emp_acccore</i>		14,207	63.7
<i>emp_acccore</i>	9.67 (0.00, 134)	14,207	67.1
<i>emp_accnon</i>		14,207	62.4
<i>emp_accnon</i>	15.40 (0.00, 134)	14,207	67.6
<i>emp_accclass</i>		14,207	63.1
<i>emp_accclass</i>	9.31 (0.00, 134)	14,207	66.7
<i>emp_accfv</i>		14,207	62.8
<i>emp_accfv</i>	9.05 (0.00, 134)	14,207	66.1

Panel B: Distribution of SEC Staff Fixed Effects

Variable	N	mean	p25	p50	p75	Interquartile range (Adjusted for log transformation)
<i>topic</i>	135	-0.107	-0.255	-0.048	0.160	51%
<i>emp_accdis</i>	135	-0.020	-0.275	-0.018	0.105	38%
<i>emp_intcon</i>	135	0.001	-0.017	-0.007	0.009	2.6%
<i>emp_mda</i>	135	0.012	-0.181	-0.015	0.127	30.8%
<i>emp_regfil</i>	135	-0.014	-0.089	0.003	0.100	18.9%
<i>emp_risk</i>	135	0.021	-0.031	-0.001	0.045	7.5%
<i>emp_other</i>	135	-0.045	-0.179	-0.029	0.065	24.4%
<i>emp_acccore</i>	135	-0.078	-0.386	-0.103	0.201	58.7%
<i>emp_accnon</i>	135	-0.009	-0.390	-0.041	0.232	62.2%
<i>emp_accclass</i>	135	-0.120	-0.346	-0.137	0.107	45.3%
<i>emp_accfv</i>	135	0.001	-0.222	0.010	0.132	35.4%

Table 4 – Effects of SEC Staff Members on Financial Reporting Quality (H3)

Panel A reports the test results for SEC staff fixed effects on firms' financial reporting quality. The financial reporting quality proxies are discretionary accrual ($dacc_{t+1}$), F-score ($fscore_{t+1}$), report complexity ($file_size$) and report readability (fog_index). For each dependent variable, the first row reports results without SEC staff member fixed effects, and the second row reports results when we include the fixed effects. We report the test results of joint significance for the staff fixed effects. We report the F-statistic, and in parentheses, the p-value (two-tailed) and number of constraints. Also reported are the number of observations (N) and adjusted R² (Adj. R²) for each regression. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, *auditorresigned*. All variables are defined in Appendix A. Panel B reports the distribution of the staff fixed effects from the regressions in Panel A. The interquartile range is adjusted for dependent variables for which we use the log values (*file_size*).

Panel A: Financial Reporting Quality						
	F-test on SEC staff fixed effects	N	Adj. R² (%)			
<i>dacc_{t+1}</i>		14,207	82.6			
<i>dacc_{t+1}</i>	1.30 (0.01, 134)	14,207	82.8			
<i>fscore_{t+1}</i>		14,207	70.7			
<i>fscore_{t+1}</i>	1.29 (0.01, 134)	14,207	71.2			
<i>file_size</i>		14,207	88.7			
<i>file_size</i>	1.70 (0.00, 134)	14,207	88.9			
<i>fog_index</i>		14,207	55.6			
<i>fog_index</i>	1.21 (0.04, 134)	14,207	56.2			

Panel B: Distribution of SEC Staff Fixed Effects						
Variable	N	mean	p25	p50	p75	Interquartile range (Adjusted for log transformation)
<i>dacc_{t+1}</i>	135	-0.007	-0.033	-0.003	0.023	0.057
<i>fscore_{t+1}</i>	135	-0.053	-0.139	-0.041	0.045	0.184
<i>file_size</i>	135	-0.067	-0.193	-0.015	0.107	35%
<i>fog_index</i>	135	-0.127	-0.608	0.032	0.740	1.348

Table 5 – Head Fixed Effects and Non-Head Fixed Effects

This table reports the F-test results for the joint significance of SEC staff fixed effects for heads and non-heads. Panel A reports the test results on firms' remediation costs. Panel B reports the test results on firms' comment letter contents. Panel C reports the test results on firms' financial reporting quality. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed).

Panel A: Remediation Costs		
	F-test on fixed effects for Heads (N = 44)	F-test on fixed effects for Non-Heads (N = 91)
<i>round</i>	10.84***	8.14***
<i>time</i>	11.03***	8.48***
Panel B: Comment Letter Contents		
	F-test on fixed effects for Heads (N = 44)	F-test on fixed effects for Non-Heads (N = 91)
<i>topic</i>	10.90***	29.16***
<i>emp_accdis</i>	21.79***	17.08***
<i>emp_intcon</i>	8.30***	6.49***
<i>emp_mda</i>	23.18***	5.89***
<i>emp_regfil</i>	17.22***	5.70***
<i>emp_risk</i>	13.13***	5.05***
<i>emp_other</i>	22.50***	10.38***
<i>emp_acccore</i>	11.33***	10.05***
<i>emp_accnon</i>	16.39***	13.39***
<i>emp_accclass</i>	9.96***	9.39***
<i>emp_accfv</i>	9.84***	6.86***
Panel C: Financial Reporting Quality		
	F-test on fixed effects for Heads (N = 44)	F-test on fixed effects for Non-Heads (N = 91)
<i>dacc_{t+1}</i>	1.78***	1.73***
<i>fscore_{t+1}</i>	1.41*	1.21*
<i>file_size</i>	1.32*	1.76***
<i>fog_index</i>	1.77***	1.35*

Table 6 – Effects of SEC Staff Members, Controlling for CEO Fixed Effects

This table reports the test results for SEC staff fixed effects after controlling for CEO fixed effects. Panel A reports the test results on firms’ remediation costs. Panel B reports the test results on firms’ comment letter contents. Panel C reports the test results on firms’ financial reporting quality. For each dependent variable, the first row reports results without SEC staff member fixed effects, and the second row reports results when we include the fixed effects. We report the test results of joint significance for the staff fixed effects. We report the F-statistic, and in parentheses, the p-value (two-tailed) and number of constraints. Also reported are the number of observations (N) and adjusted R² (Adj. R²) for each regression. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, *auditorresigned*. All variables are defined in Appendix A.

Panel A: Remediation Costs			
	F-test on SEC staff fixed effects	N	Adj. R² (%)
<i>round</i>		7,622	66.8
<i>round</i>	6.50 (0.00, 110)	7,622	70.5
<i>time</i>		7,622	70.6
<i>time</i>	6.33 (0.00, 110)	7,622	73.8
Panel B: Comment Letter Contents			
	F-test on SEC staff fixed effects	N	Adj. R² (%)
<i>topic</i>		7,622	70.6
<i>topic</i>	17.12 (0.00, 110)	7,622	78.0
<i>emp_accdis</i>		7,622	63.5
<i>emp_accdis</i>	13.67 (0.00, 110)	7,622	71.2
<i>emp_intcon</i>		7,622	67.2
<i>emp_intcon</i>	3.56 (0.00, 110)	7,622	69.4
<i>emp_mda</i>		7,622	65.1
<i>emp_mda</i>	15.34 (0.00, 110)	7,622	73.3
<i>emp_regfil</i>		7,622	68.6
<i>emp_regfil</i>	10.77 (0.00, 110)	7,622	74.1
<i>emp_risk</i>		7,622	64.4
<i>emp_risk</i>	8.01 (0.00, 110)	7,622	69.2
<i>emp_other</i>		7,622	65.1
<i>emp_other</i>	18.62 (0.00, 110)	7,622	74.5
<i>emp_acccore</i>		7,622	67.4
<i>emp_acccore</i>	6.41 (0.00, 110)	7,622	71.1
<i>emp_accnon</i>		7,622	64.4
<i>emp_accnon</i>	9.32 (0.00, 110)	7,622	69.8

<i>emp_accclass</i>		7,622	66.3
<i>emp_accclass</i>	6.40 (0.00, 110)	7,622	70.0
<i>emp_accfv</i>		7,622	65.6
<i>emp_accfv</i>	6.26 (0.00, 110)	7,622	69.2

Panel C: Financial Reporting Quality

	F-test on SEC staff fixed effects	N	Adj. R ² (%)
<i>dacc_{t+1}</i>		7,622	88.8
<i>dacc_{t+1}</i>	1.39 (0.00, 110)	7,622	89.1
<i>fscore_{t+1}</i>		7,622	79.1
<i>fscore_{t+1}</i>	1.75 (0.00, 110)	7,622	79.8
<i>file_size</i>		7,622	90.6
<i>file_size</i>	1.86 (0.00, 110)	7,622	90.9
<i>fog_index</i>		7,622	66.4
<i>fog_index</i>	1.27 (0.03, 110)	7,622	67.2

Table 7 – Effects of SEC Staff Members: Falsification Tests

This table reports the results for falsification tests of SEC staff fixed effects. Specifically, we regress the outcome variables on the staff fixed effect before the staff member covers the firm (pseudo staff fixed effects). Panel A reports the test results on firms’ remediation costs. Panel B reports the test results on firms’ comment letter contents. Panel C reports the test results on firms’ financial reporting quality. Reported in the table are the results from fixed effects panel regressions. For each dependent variable, the first row reports results without SEC staff member fixed effects, and the second row reports results when we include the fixed effects. We report the test results of joint significance for the staff fixed effects. We report the F-statistic, and in parentheses, the p-value (two-tailed) and number of constraints. Also reported are the number of observations (N) and adjusted R² (Adj. R²) for each regression. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, *auditorresigned*. All variables are defined in Appendix A.

Panel A: Remediation Costs			
	F-test on fixed effects for pseudo SEC Staff	N	Adj. R² (%)
<i>round</i>		5,333	29.6
<i>round</i>	0.828 (0.90, 106)	5,333	30.9
<i>time</i>		5,333	28.9
<i>time</i>	0.919 (0.71, 106)	5,333	30.5
Panel B: Comment Letter Contents			
	F-test on fixed effects for pseudo SEC Staff	N	Adj. R² (%)
<i>topic</i>		5,333	31.7
<i>topic</i>	1.143 (0.15, 106)	5,333	33.7
<i>emp_accdis</i>		5,333	31.5
<i>emp_accdis</i>	0.97 (0.57, 106)	5,333	33.4
<i>emp_intcon</i>		5,333	35.5
<i>emp_intcon</i>	0.76 (0.97, 106)	5,333	36.9
<i>emp_mda</i>		5,333	33.4
<i>emp_mda</i>	0.87 (0.82, 106)	5,333	35.1
<i>emp_regfil</i>		5,333	30.2
<i>emp_regfil</i>	1.08 (0.29, 106)	5,333	32.1
<i>emp_risk</i>		5,333	32.8
<i>emp_risk</i>	0.902 (0.75, 106)	5,333	34.5
<i>emp_other</i>		5,333	31.6
<i>emp_other</i>	0.92 (0.71, 106)	5,333	33.4
<i>emp_acccore</i>		5,333	31.1
<i>emp_acccore</i>	0.81 (0.92, 106)	5,333	32.5
<i>emp_accnon</i>		5,333	30.0
<i>emp_accnon</i>	0.80 (0.93, 106)	5,333	31.3

<i>emp_accclass</i>		5,333	29.8
<i>emp_accclass</i>	0.85 (0.86, 106)	5,333	31.3
<i>emp_accfv</i>		5,333	29.6
<i>emp_accfv</i>	0.88 (0.79, 106)	5,333	30.8

Panel C: Financial Reporting Quality

	F-test on fixed effects for pseudo SEC Staff	N	Adj. R² (%)
<i>dacc_{t+1}</i>		5,333	76.7
<i>dacc_{t+1}</i>	0.64 (1.00, 106)	5,333	77.1
<i>fscore_{t+1}</i>		5,333	68.8
<i>fscore_{t+1}</i>	1.02 (0.44, 106)	5,333	69.7
<i>file_size</i>		5,333	89.0
<i>file_size</i>	1.09 (0.25, 106)	5,333	89.4
<i>fog_index</i>		5,333	60.1
<i>fog_index</i>	0.94 (0.65, 106)	5,333	61.0

Table 8 – Descriptive Statistics of SEC Staff Characteristics

This table reports the descriptive statistics of SEC staff members. Their personal information is extracted from their LinkedIn profiles (if available). Panel A reports the summary statistics of the staff characteristics. Panel B reports the correlation matrix between the staff characteristics (Pearson’s correlation coefficients are shown in the lower triangle, while Spearman’s rank correlations appear above the diagonal). All variables are defined in Appendix A. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed).

Panel A: Summary Statistics		
	Frequency	Percent
N = 66		
Gender		
Male	45	68%
Female	21	32%
Accounting Qualification		
CPA	20	30%
No CPA	46	70%
Higher Education		
MBA	5	8%
No MBA	61	92%
Age		
20 – 29	4	6%
30 – 39	29	44%
40 – 49	27	41%
50 – 59	4	6%
> 59	2	3%
SEC tenure		
<10	26	39%
10 – 19	36	55%
>19	4	6%

Panel B: Correlation Matrix between SEC Staff Characteristics					
Variable	<i>female</i>	<i>cpa</i>	<i>mba</i>	<i>age</i>	<i>sec_exp</i>
<i>female</i>		-0.03	0.05	-0.11	0.05
<i>cpa</i>	-0.03		0.31**	-0.04	0.07
<i>mba</i>	0.05	0.31**		0.17	0.24**
<i>age</i>	-0.14	-0.04	0.21*		0.72***
<i>sec_exp</i>	-0.01	-0.01	0.16	0.62***	

Table 9 – Effects of SEC Staff Members: Personal Characteristics

This table reports the results of outcome variables on SEC staff characteristics:

$$\text{Dep_var}_{it} = \alpha_0 + \sum \hat{\delta} * \text{Controls}_{it} + \text{Firm}_i + \text{Year}_t + \sum \beta * \text{Staff Characteristic}_{jt} + \varepsilon_{it}$$

Panel A reports the test results on firms’ remediation costs. Panel B reports the test results on firms’ comment letter contents. Panel C reports the test results on firms’ financial reporting quality. Each column corresponds to a separate regression with the dependent variable on top. Due to space constraints, we only report the coefficients for the independent variables of interest. *Female* is a dummy for female staff members, *cpa* is a dummy for SEC staff members with CPAs, *mba* is a dummy for SEC staff members with MBAs, *age* is the age of SEC staff members, and *sec_exp* is the tenure of the staff members with the SEC (measured in years). The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, *auditorresigned*. All variables are defined in Appendix A. Standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed).

Panel A: Remediation Costs		
Variable	(1) <i>round</i>	(2) <i>time</i>
<i>female</i>	0.156*** (0.029)	0.180*** (0.058)
<i>cpa</i>	0.029 (0.026)	-0.002 (0.052)
<i>mba</i>	0.022 (0.056)	0.089 (0.113)
<i>age</i>	0.008*** (0.002)	0.027*** (0.004)
<i>sec_exp</i>	-0.005** (0.002)	-0.020*** (0.0052)
Observations	5,101	5,101
R ²	0.720	0.726
Firm fixed effect	Yes	Yes
Year fixed effect	Yes	Yes
Controls	Yes	Yes

Panel B: Comment Letter Contents

Variable	(1) <i>topic</i>	(2) <i>emp_accdis</i>	(3) <i>emp_intcon</i>	(4) <i>emp_mda</i>	(5) <i>emp_regfil</i>	(6) <i>emp_risk</i>	(7) <i>emp_other</i>	(8) <i>emp_acccore</i>	(9) <i>emp_accnon</i>	(10) <i>emp_accclass</i>	(11) <i>emp_accfv</i>
<i>female</i>	0.077** (0.030)	0.062*** (0.024)	0.005 (0.006)	0.086*** (0.030)	-0.046*** (0.016)	-0.039*** (0.007)	0.039** (0.018)	0.094 (0.060)	0.091* (0.049)	0.234*** (0.045)	-0.027 (0.031)
<i>cpa</i>	0.018 (0.027)	0.110*** (0.021)	0.006 (0.005)	0.106*** (0.027)	-0.024* (0.014)	-0.012** (0.006)	-0.015 (0.017)	0.217*** (0.054)	0.180*** (0.044)	0.163*** (0.041)	-0.0008 (0.028)
<i>mba</i>	-0.193*** (0.058)	0.090* (0.046)	0.0008 (0.011)	0.199*** (0.058)	0.055* (0.031)	0.028** (0.013)	0.044 (0.036)	-0.047 (0.117)	-0.286*** (0.095)	-0.380*** (0.088)	0.150** (0.061)
<i>age</i>	0.0004 (0.002)	-0.004** (0.002)	0.001*** (0.0004)	0.001 (0.002)	0.002** (0.001)	-0.0004 (0.0005)	0.003*** (0.001)	-0.007* (0.004)	-0.013*** (0.003)	0.009*** (0.003)	-0.007*** (0.002)
<i>sec_exp</i>	0.008*** (0.002)	0.010*** (0.002)	-0.0006 (0.0004)	-0.003 (0.002)	-0.005*** (0.001)	-0.001* (0.0006)	-0.004*** (0.001)	0.022*** (0.005)	0.028*** (0.004)	-0.002 (0.004)	0.009*** (0.002)
Observations	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101	5,101
R ²	0.724	0.677	0.695	0.690	0.714	0.700	0.691	0.705	0.682	0.698	0.681
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Panel C: Financial Reporting Quality				
Variable	(1) <i>dacc_{t+1}</i>	(2) <i>fscore_{t+1}</i>	(3) <i>file_size</i>	(4) <i>fog_index</i>
<i>female</i>	0.007 (0.011)	-0.037 (0.030)	0.061 (0.049)	-0.743*** (0.271)
<i>cpa</i>	0.005 (0.011)	-0.044** (0.022)	0.034 (0.044)	0.097 (0.198)
<i>mba</i>	0.022 (0.023)	0.078 (0.053)	-0.226** (0.096)	0.281 (0.562)
<i>age</i>	0.001 (0.0007)	-0.0002 (0.001)	0.002 (0.003)	0.013 (0.011)
<i>sec_exp</i>	-0.001 (0.0009)	0.0005 (0.002)	-0.001 (0.004)	0.106*** (0.017)
Observations	5,101	5,101	5,101	5,101
R ²	0.858	0.416	0.910	0.481
Firm fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Appendix A – Variables Definition

Variable	Definition
<i>round</i>	The number of rounds from the first letter to the “no further comment” letter. In the regressions, we take the natural logarithm of number of rounds.
<i>time</i>	The response time (in days) from the first comment letter to the “no further comment” letter. In the regressions, we take the natural logarithm of number of days.
<i>topic</i>	The total number of issue codes assigned by Audit Analytics in the comment letter conversation database. In the regressions, we take the natural logarithm of number of topics.
<i>emp_accdis</i>	The percentage of total number of topics that are related to Accounting Disclosure (assigned by Audit Analytics).
<i>emp_intcon</i>	The percentage of total number of topics that are related to Internal Control Disclosure (assigned by Audit Analytics).
<i>emp_mda</i>	The percentage of total number of topics that are related to Management Discussion and Analysis (MD&A) (assigned by Audit Analytics).
<i>emp_regfil</i>	The percentage of total number of topics that are related to Regulatory Filing, e.g., specific Reg S-K and Reg S-X disclosure requirements (assigned by Audit Analytics).
<i>emp_risk</i>	The percentage of total number of topics that are related to Risk Factor Disclosure (assigned by Audit Analytics).
<i>emp_other</i>	The percentage of total number of topics that are related to Other Disclosure, e.g., disclosures relating to executive and director compensation, legal matters, non-GAAP measures, related party transactions (assigned by Audit Analytics).
<i>emp_acccore</i>	The percentage of total number of Accounting Disclosure Issues that are related to Core Earnings (e.g., revenue, operating expenses). Following Cassell et al. (2013), we sub-divide topics in the Accounting Rule and Disclosure Issues category by using the modified framework in Palmrose and Scholz (2004).
<i>emp_accnon</i>	The percentage of total number of Accounting Disclosure Issues that are related to Non-Core Earnings (e.g., impairment, restructurings).
<i>emp_accclass</i>	The percentage of total number of Accounting Disclosure Issues that are related to Classification Issues (e.g., balance sheet and cash flow classification issues).
<i>emp_accfv</i>	The percentage of total number of Accounting Disclosure Issues that are related to Fair Value Issues.

<i>dacc</i>	<p>Discretionary Accrual. It's based on the cross-sectional performance-matched modified Jones model (Kothari et al., 2005), specifically, the residuals from the following pooled regression that are run for each industry-year combination, and the industries are defined by the two-digit SIC codes:</p> $\frac{TA_{it}}{ASSET_{it-1}} = \alpha_0 + \alpha_1 \frac{1}{ASSET_{it-1}} + \alpha_2 \frac{\Delta SALES_{it} - \Delta AR_{it}}{ASSET_{it-1}} + \alpha_3 \frac{PPE_{it}}{ASSET_{it-1}} + \alpha_4 \frac{NI_{it}}{ASSET_{it-1}} + \varepsilon_{it}$ <p>TA_{it} is total accruals, which equals Net Income minus Cash Flow from Operations; ASSET_{it-1} is lagged Total Assets; ΔSALES_{it} is the change in Sales; ΔAR_{it} is the change in Accounts Receivables; and PPE_{it} is Net Property, Plant, and Equipment. NI_{it} is Net Income.</p>
<i>fscore</i>	<p>The scaled predicted probability from substituting time variant firm characteristics into the following logit model, which uses estimated coefficients from Dechow et al. (2011) (Model 2, Table 7):</p> <p>Predicted Value = Intercept + α₀RSSTaccruals + α₁ΔReceivables + α₂ΔInventory + α₃%Soft Assets + α₄ΔCash sales + α₅ΔROA + α₆ Actual Issuance + α₇ΔAbnormal employees + α₈Existence of operating leases</p> <p>F-score is calculated as the predicted probability from the above model (i.e. e^{Predicted Value} / (1 + e^{Predicted Value})) divided by the unconditional expectation of misstatement.</p>
<i>file_size</i>	<p>The natural logarithm of the size of 10-K filed by the firm on the SEC's EDGAR. The file has been scrubbed (i.e., tags, embedded items and other non-text features have been removed) (Loughran & McDonald, 2016). The Python script of calculating the file size is obtained from McDonald's website.</p>
<i>fog_index</i>	<p>Measure of readability of the 10-K. It is calculated by the following formula:</p> <p>Fog_index = (Words per sentence + Percent of Complex Words) * 0.4</p>
<i>restate</i>	<p>An indicator variable that is equal to 1 if the company files a 10-K restatement in year t, and 0 otherwise.</p>
<i>m_weak</i>	<p>An indicator variable that is equal to 1 if the internal control audit opinion (under SOX Section 404) or the management certification (under SOX Section 302) as reported in Audit Analytics is qualified for a material weakness in year t, and 0 otherwise.</p>
<i>lnmarketcap</i>	<p>The natural logarithm of market capitalization, calculated as the number of shares outstanding at the fiscal year-end multiplied by the closing share price at the fiscal year-end.</p>
<i>loss</i>	<p>An indicator variable that is equal to 1 if earnings before extraordinary items is negative in year t, and 0 otherwise.</p>

<i>m_a</i>	An indicator variable that is equal to 1 for non-zero acquisitions or mergers as reported on a pre-tax basis (Compustat Item AQP) in year t, and 0 otherwise.
<i>restructuring</i>	An indicator variable that is equal to 1 for non-zero restructuring costs as reported on a pre-tax basis (Compustat Item RCP) in year t, and 0 otherwise.
<i>salesgrowth</i>	The percentage change in annual sales from year t-1 to year t.
<i>segments</i>	The number of business segments reported in the Compustat Segments database.
<i>bankruptcyrank</i>	<p>The decile rank of the company's Altman's Z-score. Companies in the decile having the poorest financial health are assigned a value of 10 and those in the decile having the best financial health are assigned a value of 1. Altman's Z-score is measured following DeFond and Hung (2003) and Altman (1968):</p> $\text{Z-score} = 1.2 * [\text{net working capital (ACT-LCT)/total assets (AT)}] + 1.4 * [\text{retained earnings (RE)/total assets}] + 3.3 * [\text{earnings before interest and taxes (PI + XINT)/total assets}] + 0.6 * [\text{market value of equity (CSHO * PRCC_F)/book value of liabilities (LT)}] + 1.0 * [\text{sales (SALE)/total assets}].$
<i>ceo_chair</i>	An indicator variable that is equal to 1 if the CEO is also the chairman of the board of directors, and 0 otherwise.
<i>ceo_tenure</i>	The number of years the CEO has served in his/her current role in our sample.
<i>cfo_tenure</i>	The number of years the CFO has served in his/her current role in our sample.
<i>highvolatility</i>	An indicator variable that is equal to 1 if the volatility of abnormal monthly stock returns (equal to the monthly return [RET] minus the value weighted return [VWRTD]) is in the highest quartile in a given fiscal year, and 0 otherwise. Return volatility is calculated as the standard deviation of monthly stock returns for the 12-month period ending in the last month of the fiscal year.
<i>auditordismissed</i>	An indicator variable that is equal to 1 if the auditor was dismissed in year t, and 0 otherwise. This information is obtained from Audit Analytics Auditor Changes database.
<i>auditorresigned</i>	An indicator variable that is equal to 1 if the auditor resigned in year t, and 0 otherwise. This information is obtained from Audit Analytics Auditor Changes database.
<i>big_n</i>	An indicator variable that is equal to 1 if the auditor in year t is a Big-N audit firm, and 0 otherwise.
<i>second_tier</i>	An indicator variable that is equal to 1 if the auditor is a second-tier audit firm (i.e., BDO Seidman, Crowe Horwath, Grant Thornton, or McGladrey & Pullen), and 0 otherwise

<i>audtenure</i>	The number of years (through year t) during which the auditor has audited the company in our sample.
<i>female</i>	Indicator variable that is equal to 1 if the SEC staff member is female, and 0 otherwise
<i>age</i>	Age of the SEC staff. We approximate this number by assuming that the SEC staff member obtains her college degree at the age of 22.
<i>cpa</i>	Indicator variable that is equal to 1 if the SEC staff member discloses that she is a CPA on LinkedIn profile page, and 0 otherwise.
<i>mba</i>	Indicator variable that is equal to 1 if the SEC staff member discloses that she has obtained an MBA degree on LinkedIn profile page, and 0 otherwise.
<i>sec_exp</i>	The number of years the SEC staff member has been working at the SEC.

Appendix B – Assignment of Accounting Topics to Subcategories

The following table provides a list of all accounting topics coded by Audit Analytics (AA). We follow Palmrose and Scholz (2004) and Cassell et al. (2013) to classify Accounting Disclosure into four subcategories: Core Earnings topics (those affecting revenues, cost of goods sold, selling, general and administrative expenses, and other primary operating activities), Non-Core Earnings topics (those affecting special one-time items or non-operating activities, e.g., impairments, restructurings, M&A, discontinued operations, extraordinary items, taxes and goodwill), Classification topics, and Fair Value topics.

AA Topic	AA Topic Description	Assigned Classification
176	Accounts receivable and cash reporting issues	Core
190	Depreciation, depletion, or amortization reporting issues	Core
192	Expense (payroll, selling, general, and administrative, and other recording issues)	Core
202	Inventory, vendor, and/or cost of sales issues	Core
204	Lease, leasehold improvements (SFAS 13 and SFAS 98)	Core
205	Liabilities, payables, and accrual estimate issues	Core
212	Revenue recognition (including deferred revenue) issues	Core
816	Percentage of completion	Core
1016	Research and development issues	Core
177	Acquisitions, mergers, and business combinations	Non-Core
178	Asset sales, disposals, divestitures, reorganization issues	Non-Core
180	Capitalization of expenditures issues	Non-Core
182	Comprehensive income (equity section) issues	Non-Core
183	Consolidation (FIN 46, variable interest, structured investment vehicles, special purpose entities, and off-balance sheet arrangements)	Non-Core
184	Consolidation, foreign currency/inflation issues	Non-Core
186	Debt, quasi-debt, warrants, and equity (beneficial conversion feature) security issues	Non-Core
187	Deferred, stock-based, and/or executive compensation issues	Non-Core
188	Deferred, stock-based options backdating only	Non-Core
189	Deferred, stock-based compensation SFAS 123 only (subcategory)	Non-Core
194	Financial derivatives/hedging (SFAS 133) accounting issues	Non-Core
195	Foreign (affiliate or subsidiary) issues	Non-Core
196	Subsidiary issues, U.S. or foreign (subcategory)	Non-Core
200	Investment in subsidiary/affiliate issues	Non-Core
201	Intercompany accounting issues	Non-Core
203	Contingencies and commitments, legal (SFAS 5) accounting issues	Non-Core
206	Pension and related employee plan issues	Non-Core
207	Property, plant, and equipment fixed asset (value/diminution)	Non-Core
208	Intangible assets and goodwill	Non-Core
214	Tax expense/benefit/deferral/other (SFAS 109) issues	Non-Core
254	Asset retirement obligation (SFAS 143) issues	Non-Core
283	Loans receivable, valuation, and allowances issues	Non-Core
284	Loss reserves (loss adjustment expense, reinsurance) disclosure issues	Non-Core

897	Tax rate disclosure issues	Non-Core
1011	Non-monetary exchange (APB 29, EITF 01-2) issues	Non-Core
1012	Gain or loss recognition issues	Non-Core
1027	Dividend and/or distribution issues	Non-Core
179	Balance sheet classification of assets issues	Classification
181	Cash flow statement (SFAS 95) classification errors	Classification
185	Debt and/or equity classification issues	Classification
191	Earnings per share ratio and classification of income statement issues	Classification
278	Financial statement segment reporting (SFAS 131 subcategory) issues	Classification
931	Investments (SFAS 115) and cash and cash equivalents classification issues	Classification
934	Changes in accounting principles and interpretation issues	Classification
935	Fair value measurement, estimates, use (including vendor-specific objective evidence)	Fair Value
