Prosocial CEOs and Accounting Information Quality

Mei Feng
University of Pittsburgh
Pittsburgh, PA 15260
mfeng@katz.pitt.edu

Weili Ge*
University of Washington
Seattle, WA 98195
geweili@uw.edu

Zhejia Ling
California State University, Fullerton
Fullerton, CA 92834
zling@fullerton.edu

Wei Ting Loh
Singapore Management University
Singapore 178900
wtloh@smu.edu.sg

January 2024

We would like to thank Clara Chen, Siqi Li, and Lynn Wang as well as seminar participants at Chinese University of Hong Kong-Shenzhen, Hong Kong University, National University of Singapore, Santa Clara University, Simon Fraser University, the University of Arizona, Washington State University, 2022 Haskayne and Fox Accounting Conference, and 2023 Hawai'i Accounting Research Conference for their valuable comments and suggestions. Weili Ge would like to thank the Moss Adams Professorship at the University of Washington for financial support. Any errors or omissions are our responsibility.

* Corresponding author.

Prosocial CEOs and Accounting Information Quality

Abstract: This paper examines the association between chief executive officers' (CEOs') prosocial tendency and their companies' accounting information quality. We measure CEOs' prosocial tendency using their involvement with charitable organizations. Our results suggest that prosocial CEOs are less likely to engage in accounting manipulation, proxied by (1) accounting irregularities identified using material non-reliance restatements and (2) SEC or DOJ enforcement actions. Moreover, when we focus on firms that experience CEO turnovers, we find that the change of CEOs' prosocial tendency is negatively associated with the change in the likelihood of accounting manipulations. Further, the effect of prosocial CEOs on accounting manipulations is more pronounced in situations where the direct aim of the charitable organization(s) that CEOs are involved in is to improve the welfare of others in need, when CEOs have stronger incentives to manipulate financial statements, and when chief financial officers are also prosocial. Finally, we find that prosocial CEOs are less likely to withhold bad news and that they issue more earnings forecasts. Taken together, our findings suggest that CEOs' prosocial tendency, a fundamental personal characteristic, significantly influences the quality of accounting information.

Keywords: Prosocial behavior; Prosocial tendency; Accounting information quality; Accounting manipulation.

JEL Classification: D64, G30, G41, M41

Data Availability: All data are publicly available or available from the subscription sources identified in the text.

Prosocial CEOs and Accounting Information Quality

1. Introduction

This paper investigates whether prosocial CEOs provide higher quality accounting information, with a focus on accounting manipulations. Prosocial tendency, as a fundamental aspect of human nature, reflects the extent to which an individual is concerned about others in society and considers others' interests when making decisions (Batson and Powell 2003; McDougall 1908). Prior studies in psychology, sociology and economics suggest that at least some individuals in our society are prosocial and take actions that primarily benefit others (e.g., Bénabou and Tirole 2006; Meier 2007; Sobel 2005).

We argue that CEOs' prosocial tendency is particularly pertinent to accounting information quality. Poor accounting information quality harms trust between management and shareholders and has a detrimental impact on shareholders' interests (Amiram et al. 2018; Karpoff, Lee, and Martin 2008b).[1] One key driver of poor information quality is the agency problem, i.e., managers' desire to maximize their own interests at the cost of shareholders' welfare (Jensen and Meckling 1976). Numerous studies (e.g., Amiram et al. 2018; Armstrong, Larcker, Ormazabal, and Taylor 2013) document that managers manipulate earnings to benefit their own career or receive greater compensation. However, when managers are prosocial, their concerns about shareholders' welfare make them less subject to the agency problem, and thus more likely to provide higher quality accounting information.

Following Feng, Ge, Ling, and Loh (2023), we identify prosocial CEOs using their involvement with charitable organizations, since the primary goal of such organizations is to improve societal welfare. Specifically, we use the BoardEx database to obtain data on CEOs' off-the-job activities. We define CEOs as prosocial if they are involved with at least one organization

[1] Karpoff, Lee, and Martin (2008b) document that when accounting misconduct is revealed, firms lose 38 percent of their market value on average.

that is classified as a charitable organization by the Internal Revenue Service (IRS).[2]

To measure accounting information quality, we focus on the likelihood of firms' accounting manipulations, including accounting irregularities identified by material non-reliance restatements (*Irregularity*) and financial misrepresentation targeted by SEC or DOJ enforcement actions (*Enforcement*). We use these two measures for two reasons. First, researchers have a high level of confidence that these events identify firms with managers who likely manipulate financial statements intentionally (i.e., low type I error rate). Second, prior studies document that managers manipulate financial statements to benefit themselves at significant cost to shareholders (Amiram et al. 2018). Thus, these events provide us with powerful settings to examine whether CEOs' prosocial tendency affects accounting information quality.[3]

We find that having a prosocial CEO is significantly and negatively associated with both *Irregularity* and *Enforcement*, after controlling for CEOs' involvement with non-charitable organizations, religiosity, managerial ability, other personal characteristics, and firm characteristics including performance, risk, and corporate governance. These results are also economically significant. For example, *Irregularity* is 1.2 percent lower for firms with prosocial CEOs than for other firms, which represents 16 percent of the average magnitude of *Irregularity* in our sample (7.6 percent).

It is possible, however, that the associations documented above are driven by underlying firm characteristics, such as firm culture or tradition. To address this concern, we next focus on firms with CEO turnovers and examine changes in the likelihood of accounting manipulations

[2] One may argue that CEOs engage in prosocial activities to maximize their own interests such as building their social network. However, Feng et al. (2023) show that firms with CEOs involved in charitable organizations experience lower executive subordinate turnover, adopt more employee-friendly policies, and have higher customer satisfaction, consistent with these CEOs having other-regarding preferences. We discuss incentives to engage in prosocial activities in more detail in Section 2.1.

[3] We do not examine accrual-based earnings management because it does not always hurt shareholders' interests; thus, it may not be driven by the agency problem. For example, earnings smoothing could potentially benefit shareholders by signaling lower volatility of firm performance.

around CEO turnovers. Empirically, we find that for a given firm, the change in its CEO's prosocial tendency around the CEO turnover is negatively and significantly associated with changes in both *Irregularity* and *Enforcement*. This result is consistent with the interpretation that firms are less likely to have accounting irregularities and regulatory enforcement actions after a prosocial CEO replaces a non-prosocial CEO and are more likely to have them after a non-prosocial CEO replaces a prosocial CEO. It is possible, however, that CEO turnovers are endogenously driven by underlying changes in firm characteristics that also change firms' accounting practices. Thus, we further restrict CEO turnovers to those due to exogenous reasons including the preceding CEO's death or health issues. We continue to find similar results using this subsample of CEO turnovers.

Another alternative explanation for our results is that our prosocial measure captures other CEO characteristics. For example, CEOs with high ability may be more likely to volunteer in charitable organizations and less likely to manipulate financial statements. While controlling for CEOs' involvement in non-charitable organizations and managerial ability helps to address this concern, we further alleviate it by investigating CEOs' involvement in different types of charitable organizations. The IRS's file lists a variety of organizations as charitable, even though some organizations are more directly involved in increasing the welfare of others (e.g., the American Red Cross) than other organizations (e.g., art museums). If CEOs are involved with charitable organizations due to their concern for others, they would be more likely to be involved with organizations that directly focus on caring for others' basic needs, which would lead to a stronger negative association between these CEOs and accounting manipulations. In contrast, if CEOs' involvement in charitable organizations merely reflects other individual characteristics such as ability, we would not expect their involvement to vary with types of charitable organizations; accordingly, the association between prosocial CEOs and accounting manipulations should not

differ across charity types either. Consistent with our story, we find that CEOs who are involved in charitable organizations that directly aim to improve others' welfare are more negatively associated with *Irregularity* and *Enforcement*.

To better understand the relation between CEOs' prosocial tendency and accounting manipulations, we conduct cross-sectional analyses. First, if prosocial CEOs are less likely to manipulate financial statements because their prosocial tendency mitigates the agency problem, we expect the effect of prosocial tendency to be stronger when managers are more subject to the agency problem. We focus on two accounting manipulation incentives: career concerns and incentive compensation. We measure CEOs' career concerns using financial distress since prior studies (e.g., Dechow, Ge, Larson, and Sloan 2011; Rosner 2003) document that managers of financially distressed firms, who are more concerned about their job security and career, are more likely to manipulate earnings. Using Altman's Z-score to identify firms under financial distress, we find that CEOs' prosocial tendency has a significantly stronger effect on reducing *Irregularity* and *Enforcement* for firms under financial distress than for other firms. In addition, Armstrong et al. (2013) document that the sensitivity of managers' wealth to changes in firm risk (portfolio vega) creates incentives for managers to manipulate earnings. We find that CEOs' prosocial tendency is more negatively associated with *Irregularity* when their portfolio vega is high, but there is no significant result for *Enforcement*. Taken together, these results are generally consistent with the notion that the effect of prosocial tendency is more pronounced when CEOs have stronger incentives to manipulate financial statements.

Second, preparing financial statements is typically the primary responsibility of chief financial officers (CFOs) (e.g., Ge, Matsumoto, and Zhang 2011; Geiger and North 2006; Mian 2001). We expect firms to be least likely to manipulate financial statements when both their CEO and CFO are prosocial and concerned about shareholders' welfare. We find supporting evidence

when examining both *Irregularity* and *Enforcement*.[4]

While our main analyses focus on mandatory disclosures, CEOs' prosocial tendencies are also likely to affect firms' voluntary disclosures. The voluntary disclosure literature documents that managers withhold bad news for their own interests, such as benefiting their career or profiting from insider trading (Ali, Li, and Zhang 2019; Kothari, Shu, and Wysocki 2009; Roychowdhury and Sletten 2012). Withholding bad news, however, hurts shareholders' interests as it increases firms' information asymmetry and cost of capital (Diamond 1985; Diamond and Verrecchia 1991; Glosten and Milgrom 1985). Because prosocial CEOs are less likely to maximize their own interests at the cost of shareholders' welfare, we expect prosocial CEOs to be less likely to withhold bad news. Following Roychowdhury and Sletten (2012), we measure bad news withholding by comparing the informativeness of earnings announcements between bad news quarters and good news quarters. Consistent with our expectation, we find that prosocial CEOs are more forthcoming in disclosing bad news to shareholders. We also find that a CEO's prosocial tendency is positively associated with their firm's management forecast frequency. Moreover, our results on bad news withholding and management forecast frequency continue to hold when we conduct analyses using all CEO turnovers and exogenous CEO turnovers.

We conduct a battery of robustness tests to corroborate our main results. First, we partition prosocial CEOs using the extent of their prosocial tendencies and re-run our cross-sectional analyses based on financial distress and portfolio vega. We find stronger results for high-prosocial CEOs than for low-prosocial CEOs, suggesting that our cross-sectional analysis results are

[4] We define CFOs as prosocial if they are involved with at least one charitable organization, just as we define prosocial CEOs. Although CFOs play an important role in financial reporting, we focus on CEOs in our main research question for two reasons. First, the principle-agency problem in prior literature (e.g., Jensen and Meckling 1976) mainly refers to the interest conflicts between CEOs and shareholders. Second, Feng, Ge, Luo, and Shevlin (2011) provide evidence consistent with CEOs orchestrating the accounting manipulation by exerting pressure on CFOs. Based on their finding, CEOs play a larger role in accounting irregularities than CFOs, which is why we focus on the role of CEOs in this paper. In untabulated results, we also find that prosocial CFOs themselves have a significant effect on financial reporting outcomes. For further discussion, see Section 4.3.

attributable to prosocial tendency instead of other CEO characteristics. We also control for CEO narcissism and CEO behavioral integrity for subsamples where data for these individual characteristics are available and continue to find that prosocial CEOs are less likely to have irregularities.[5] Second, we include firm fixed effects for our sample of CEO turnovers and continue to find consistent results. Third, we use the M-score developed by Beneish (1999) to measure the risk of accounting manipulation and find that firms with prosocial CEOs have a significantly lower probability of manipulating their earnings, consistent with our main results. Fourth, we use Audit Analytics to identify restatements driven by accounting fraud and those driven by unintentional errors. If prosocial CEOs are less likely to manipulate financial statements because they are less subject to the agency problem, we expect CEOs' prosocial tendency to be significantly associated with restatements that are due to fraud, but not with restatements that are due to unintentional errors. The results are consistent with this prediction. Fifth, our prosocial measure is time invariant because BoardEx does not provide dates of joining or leaving a charitable organization for most individuals. While prior studies (e.g., Batson and Powell 2003; Eisenberg et al. 2002) document that prosocial tendency tends to be stable over time, a potential concern is that our results are driven by reverse causality. For example, CEOs who are associated with revealed financial misrepresentations may be less likely to be invited to join a charitable organization. To address this concern, we identify individuals who were involved with charitable organizations *before* they became CEOs by comparing the 2013 and 2019 versions of the BoardEx database. We continue to find that these prosocial individuals are less likely to manipulate financial statements after they become CEOs. Finally, we conduct placebo tests for our analyses using CEO turnovers. We assume that the new CEO joined the firm two years before the actual turnover date and left the firm at the time they actually joined the firm. We do not find significant results when re-running

[5] The results for regulatory enforcement actions become insignificant after we control for these personal characteristics, probably due to a significant decrease in the sample size. Please see Section 5.2 for a detailed discussion.

our analyses under this assumption, which suggests that the change in accounting manipulations around CEO turnovers in our main analyses is indeed driven by the change in CEO prosocial type.

Our paper makes two contributions. First, we contribute to the literature on prosocial behavior by providing large-sample empirical evidence on one important benefit of having prosocial CEOs – reducing the agency problem. We focus on scenarios when CEOs are most likely to be subject to the agency problem and provide evidence that prosocial CEOs are less likely to compromise their firms' information quality for their own benefit. While prior studies mainly focus on the psychological benefits of prosocial tendency, more recent studies (e.g., Feng et al. 2023) have begun to investigate its economic consequences. Our study expands this literature by documenting the economically significant influence of prosocial tendency on accounting information quality, which is critical to protecting shareholders' interests and improving capital market efficiency (e.g., Healy and Palepu 2001; Karpoff et al. 2008b).

Second, we extend the literature on accounting information quality by identifying a fundamental managerial characteristic, prosocial tendency, as a determinant of information quality. Prior research usually assumes that managers seek to optimize their own gains without considering shareholders' welfare and investigates how various managers' incentives are associated with accounting information quality. A more recent stream of research recognizes that managers' behavior is driven not only by economic incentives but also by personal preferences, ability, experiences, and other idiosyncrasies (Hanlon, Yeung, and Zuo 2022). We contribute to this line of research by showing that managers vary in their tendency to consider shareholders' interest and thus the extent to which they are subject to the agency problem – an important determinant of information quality. Our study also complements the literature on the effect of religiosity on accounting information quality. This literature shows that individual religiosity is associated with less earnings management and higher disclosure quality (e.g., Cai, Kim, Li, and Pan 2019; Chen,

Chu, Park, and Soileau 2022; Du et al. 2019; Dyreng, Mayew and Williams 2012; McGuire, Omer and Sharp 2012; Nazrul, Esplin, Dow, and Folsom 2022). We propose that prosocial tendency is conceptually different from religiosity. Consistently, prosocial tendency is associated with higher accounting information quality after controlling for religiosity in all the analyses.

2. Related Literature and Hypothesis Development

2.1. Prior literature on prosocial tendency

Prosocial tendency is a fundamental individual characteristic and its importance has long been recognized by researchers (Batson and Powell 2003). Researchers in philosophy, sociology, economics, and psychology have investigated the determinants and consequences of prosocial tendency, as captured by prosocial behavior. Specifically, Bénabou and Tirole (2006) develop a theoretical framework that explains the incentives for prosocial behavior. Their model includes three key motivations for prosocial behavior: (1) intrinsic altruistic motivation (i.e., genuine concern for others' welfare); (2) desire to establish the self-image or social reputation of being a generous person; (3) extrinsic motivation (i.e., financial rewards). The first two motivations suggest that prosocial individuals tend to take actions that display concern for others. In other words, an individual who exhibits prosocial behavior that is driven by these two motivations would place weight on others' welfare in their own utility function. Feng et al. (2023) use involvement with charitable organizations to measure CEOs' prosocial behavior and document that prosocial CEOs are more likely to make corporate decisions that benefit a wide range of firm stakeholders (e.g., employees, customers, and the society). The findings in Feng et al. (2023) suggest that CEOs' involvement with charitable organizations is largely driven by the first two motivations, and not by the third. Thus, our subsequent discussion mainly focuses on the first two motivations. However, we do not intend to disentangle these two incentives from each other.

Regarding the consequences of prosocial behavior, most prior studies employ experimental

or survey approaches and find that prosocial behavior is associated with greater psychological well-being, expanded social networks, and higher job productivity (Dunn, Aknin, and Norton 2008; Flynn 2003; Meier and Stutzer 2008). In terms of economic consequences, Feng et al. (2023) find that CEOs' prosocial tendency is an important determinant of corporate policies and that firms with prosocial CEOs have higher value and lower risk. De Franco, Ji and Zhang (2023) find that audit clients' financial reporting quality is higher when their audit partners volunteer at a charity. Liu, Xu, Yang, and Zhang (2023) show that the presence of prosocial CEOs mitigates conflicts of interest between shareholders and creditors, thereby reducing the cost of debt. No prior studies, however, have examined whether CEOs' prosocial tendency affects the extent to which they are subject to the agency problem and the associated impact on accounting information quality.

Recent literature has investigated how various managerial characteristics, such as religiosity, narcissism, gender, and personal background, affect corporate policies including accounting choices and disclosure strategies (e.g., Barua, Davidson, Rama, and Thiruvadi 2010; Benmelech and Frydman 2015; Davidson, Dey, and Smith 2015; Dyreng et al. 2012; Ham, Lang, Seybert, and Wang 2017; McGuire et al. 2012;). For example, both McGuire et al. (2012) and Dyreng et al. (2012) document that firms headquartered in areas with strong religious adherence exhibit less earnings management. Ham et al. (2017) find that CFO narcissism is positively associated with earnings management and the likelihood of restatements.[6] Prosocial tendency is a unique characteristic and is different from the characteristics examined by prior studies because it reflects one's other-regarding preferences, thus is directly related to the extent to which an individual is subject to the agency problem. While an individual's religiosity is likely correlated with participation in charitable organizations, religiosity and prosocial tendency remain as two

[6] Another related study is Griffin, Kruger, and Maturana (2019) that utilize a marital infidelity website as a measure of personal misconduct. They find a positive connection between personal misconduct and professional misconduct across four settings (police misconduct, financial advisor misconduct, white-collar prosecutions, and corporate misconduct).

different constructs. The literature suggests that the concept of religiosity is multidimensional and is correlated with several traits such as honesty and risk aversion (Cornwall, Albrecht, Cunningham, and Pitcher 1986). Religiosity is associated with individual traits that are beyond prosocial tendency. At the same time, an individual could be prosocial but not religious. We attempt to examine the effect of individual-level prosocial tendency that goes beyond religiosity.[7]

2.2. Hypothesis development

It has long been recognized in the literature that when managers' interests are not fully aligned with shareholders' interests, they take actions that increase their self-interests at the cost of shareholders' interests (Jensen and Meckling 1976). The agency problem could lead managers to manipulate financial statements to benefit their own career or to increase their compensation (Ali and Zhang 2015; Amiram et al. 2018; Armstrong et al. 2013; Bergstresser and Philippon 2006; Efendi, Srivastava, and Swanson 2007; Feng, Ge, Luo, and Shevlin 2011). For example, Armstrong et al. (2013) document that managers' equity holdings, while intended to mitigate the agency problem by tying managers' personal wealth to firm risk (i.e., equity risk), also provide managers with incentives to misreport accounting information to boost stock performance for their own benefit.[8] The public revelation of accounting manipulations is extremely costly to shareholders, as evidenced by significant negative market reactions to announcements of

[7] Two other related constructs potentially related to prosocial tendency are behavioral integrity and morality. Behavioral integrity is defined as "the perceived pattern of alignment between an actor's words and deeds" (Simons 2002). The concept of behavioral integrity focuses on aligning principles with actions, which is distinct from the concept of prosocial tendency. In an additional analysis (Section 5.5), we control for behavioral integrity using the measure developed by Dikolli, Keusch, Mayew, and Steffen (2020). The concept of morality is much broader. Morality is an essential element of human culture, defined as prescriptive norms that guide how individuals ought to interact, including ideas such as justice, fairness, and rights (Cui, Ma, and Luo 2016; Yoder and Decety 2014). Prosocial tendency is one specific delineation of moral behavior. Thus, we do not control for morality and recognize that our study has implications for the effect of moral behavior on financial reporting quality.

[8] Prior studies before Armstrong et al. (2013) documented mixed evidence on the relation between incentives provided by equity-based compensation and earnings management. Armstrong et al. (2013) point out that earnings management increases both equity value and equity risk associated with equity-based compensation, explaining why the evidence in prior studies are mixed. Armstrong et al. (2013) argue and document that portfolio vega is positively associated with earnings management in a robust manner, which we use to capture managers' incentive to manipulate earnings when conducting cross-sectional analyses in later sections.

misstatements (Karpoff et al. 2008a; Palmrose, Richardson, and Scholz 2004).

However, Feng et al. (2023) demonstrate that some CEOs are prosocial and take various stakeholders' welfare into consideration when making corporate decisions. We expect that prosocial CEOs are concerned about shareholders' interests and thus are less subject to the agency problem than non-prosocial CEOs. Given that the agency problem is a key factor influencing managers' tendency to engage in accounting manipulations, we predict that prosocial CEOs are less likely to manipulate earnings. This leads to our main hypothesis:

Hypothesis: Prosocial CEOs are less likely to engage in accounting manipulations.

Our prediction is not without tension. It is possible that CEOs behave prosocially for strategic reasons to reap short-term benefits such as a wider social network or to build up an image that serves a particular purpose. In an extreme scenario, managers could engage in such strategic behavior to hide misconduct. For example, Bernard Madoff, who was well-known for his philanthropy work, created a persona of integrity while engaging in enormous financial fraud. Our analyses can be viewed as joint tests of (1) whether our prosocial tendency measure captures meaningful variations in CEOs' prosocial tendency, and (2) whether prosocial CEOs are less likely to manipulate earnings. For the reasons outlined above, it is possible that we observe no association or a positive association between CEOs' prosocial behavior and the likelihood of accounting manipulations.

3. Data and Sample

3.1. Measuring prosocial tendency

To identify CEOs' prosocial tendency, we follow Feng et al. (2023) and rely on the BoardEx database, which provides information on corporate top executives and board of directors. We obtain individual CEOs' memberships and involvement at various off-the-job organizations, including leisure clubs, professional, and charitable organizations. We then match these

organizations' names with organizations classified as charitable by the IRS.[9] If an individual has been involved with at least one charitable organization during their career, we identify them as prosocial, for whom a variable, *Prosocial*, equals one, and zero otherwise.[10] Feng et al. (2023) validate this measure by examining its association with CEOs' use of personal pronouns during earnings conference calls. They find that prosocial CEOs are less likely to attribute good performance to themselves or to blame others for bad performance, providing validation that this measure captures prosocial individuals' other-regarding tendencies.[11]

An individual's involvement with charitable organizations can be due to other personal characteristics such as high energy or an extroverted personality. To control for one's preference to participate in off-the-job activities in general, we also identify if a CEO has been involved with any non-charitable organization during their career. We define a variable, *OtherActivities*, to be equal to one if a CEO has been involved with at least one non-charitable organization during their career, and zero otherwise. We include this variable as a control in all our analyses to alleviate the concern that any association between *Prosocial* and accounting information quality is driven by

[9] The IRS lists all tax exempt organizations in the Exempt Organizations Business Master File Extract, which can be downloaded at https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf. A sub-category of tax-exempt organizations is "Charitable Organizations" (subsection code 03 and classification code 1 in the Exempt Organizations Business Master File Extract). For more information on IRS classifications, see https://www.irs.gov/pub/irs-soi/eo_info.pdf.

[10] Because BoardEx does not provide data on the timing of most individuals' involvement with charitable organizations, our *Prosocial* variable is time-invariant. This attribute is consistent with prior research (e.g., Eisenberg et al. 2002; Penner et al. 2005) documenting that prosocial tendency is traceable to early childhood and is relatively enduring, suggesting that prosocial tendency is stable over time. Nonetheless, we address potential concerns associated with *Prosocial* being time-invariant in Section 5.3. Alternatively, one may argue that an individual's demonstration of prosocial tendency can change over time. For example, as people age, they may have more time and resources to engage in prosocial activities. A recent study by Cutler, Nitschke, Lamm, and Lockwood (2021) find that older adults exhibit more prosocial behavior than younger adults. Under such circumstances, our measure will misclassify younger people who are prosocial as non-prosocial if they have not exhibited their prosocial tendency in observable activities yet. This possibility potentially adds noise to our measure. We control for CEO age in all the analyses to address this concern.

[11] Specifically, Feng et al. (2023) document that when a firm announces a positive earnings surprise, a prosocial CEO is significantly less likely to use first-person-singular pronouns and is significantly more likely to use first-person-plural and third-person pronouns, relative to a non-prosocial CEO. In contrast, when a firm announces a negative earnings surprise, a prosocial CEO is less likely to use third-person pronouns than a non-prosocial CEO.

CEOs' general interest in off-the-job activities rather than their prosocial tendency.[12]

3.2. Measuring accounting manipulations

We use accounting manipulations to capture a company's accounting information quality, as proxied by restatements and regulatory enforcement actions. Companies issue financial restatements to correct misapplication of GAAP in past financial statements. These misstatements can be classified as involving either errors (i.e., unintentional misapplications of GAAP) or irregularities (i.e., intentional misreporting). We focus on irregularities as they are more likely to be driven by intentional misreporting stemming from the agency problem.[13] We utilize the additional requirements on Form 8-K disclosures imposed by the SEC's Rule 33-8400 to identify material financial restatements that are likely to be accounting irregularities. Specifically, in 2004, the SEC issued Rule 33-8400, which requires a company to file an 8-K under Item 4.02 to inform investors that reliance should not be placed on previously filed financial statements due to discovery of a material error. Therefore, if a company files an 8-K under Item 4.02 along with a restatement of a prior financial statement, the restatement is classified as non-reliance restatement. We obtain data on these non-reliance restatements from the Audit Analytics database and 8-K filings data from the WRDS SEC Analytics Suite. We construct an outcome variable, *Irregularity*, to be equal to one if a firm misstates its financial statements for a given year as identified in a subsequent non-reliance restatement, and zero otherwise.

Our second measure of accounting manipulations is the likelihood of having a SEC or DOJ enforcement action taken against the firm for financial misrepresentation (Karpoff et al. 2008a, b; Karpoff, Koester, Lee, and Martin 2017). This measure for financial misrepresentation is based on

[12] In addition, we control for managerial ability by using a measure developed by Demerjian, Lev, and McVay (2012). We further alleviate this concern by examining CEOs' involvement in different types of charitable organizations in Section 4.2. Please see later sections for more discussion.

[13] However, since managerial intent is unobservable and firms rarely admit intent, prior research uses a variety of methods to identify accounting irregularities. These methods include using a keyword search in restatement announcements, the amount of restated earnings, whether there is an SEC enforcement action, or whether the restatement involves the revenue account, etc. (Hennes, Leone, and Miller 2008; Ge et al. 2020).

the database developed by Karpoff et al. (2008a, b) which covers the period from 1978 to 2012. The database consists of enforcement actions initiated by the SEC and DOJ that include violations of accounting-related sections of the 1977 Foreign Corrupt Practices Act (FCPA).[14] These enforcement actions generally involve federal charges against firms whose financial statements are misrepresented due to inaccurate bookkeeping, internal control violations, and falsification of accounting records. Following Call, Martin, Sharp, and Wilde (2018), we construct an indicator variable, *Enforcement*, that is equal to one if a given firm-year falls within the violation period of a regulatory enforcement action involving financial misrepresentation, and zero otherwise.

3.3. Control variables

We follow prior literature and control for firm characteristics that are potentially associated with earnings quality. These variables include firm size (*Size*), firm age (*FirmAge*), growth opportunities (*BTM*), analyst following (*Analysts*), and institutional ownership (*InstOwn*) (Dechow, Ge, and Schrand 2010). We control for firm performance-related variables, including return on assets (*ROA*), incidence of loss (*Loss*), and size-adjusted return (*SizeAdjRet*), because prior research has documented that CEOs have incentives to manage earnings to cover up poor performance (e.g., Cheng and Warfield 2005; Dechow et al. 2010). We also control for other fundamental firm characteristics such as sales growth (*SalesGrowth*), leverage (*Leverage*), return volatility over the year (*Volatility*) and complexity of the firm's operations (*Complexity*). We include the absolute value of total accruals to control for the company's fundamental accrual generating process that influences information quality (Dechow and Dichev 2002).

Further, we include measures of auditor and internal control quality, and characteristics of corporate governance since these are viewed as monitors of the financial reporting system that constrain a manager's opportunity or ability to manage earnings (Beasley 1996; Dechow, Sloan,

[14] Further details on this dataset are explained in Karpoff et al. (2017).

and Sweeney 1996; Kinney and McDaniel 1989; Klein 2002; Larcker, Richardson, and Tuna 2007). Specifically, we control for whether the firm's auditor is one of the Big-Four audit firms (*Big4Auditor*), whether the company has internal control weaknesses (*ICWeakness*), board size (*BoardSize*), board independence (*BoardIndep*), and whether the CEO is also the chairman of the board of directors (*DualRole*). Our sample period is from 2003-2013 for tests involving *Enforcement* as the dependent variable. Since SOX Section 404 data that is used to construct *ICWeakness* is only available after 2004, we set *ICWeakness* to zero for years before 2004 and use an indicator variable, *Post404*, to indicate years after 2004.

We also control for prosocial tendencies of a firm's board of directors and its local area since they may affect firm culture and its employees' general prosocial tendencies. We measure board of directors' prosocial tendencies as the percentage of board members who are involved with charitable organizations (*BoardCharity*). Following Hasan et al. (2017) and Bereskin, Campbell, and Kedia (2020), we measure local area's social capital (*SocialCapital*) by using the first principal component from the standardized values of local associations, voter turnout in presidential elections, census response rates, and the number of nonprofit organizations. Prior research such as Dyreng et al. (2012) and McGuire et al. (2012) show that local area's religious adherence affects firms' financial reporting. Therefore, we use data from US Religion Census to control for local area's religious adherence (*ReligiousAdherence*).

Finally, CEOs' other personal characteristics might be correlated with both their prosocial tendency and accounting information quality (Hanlon, Yeung, and Zuo 2022). Thus, we control for the CEO's age (*CEOAge*), tenure (*CEOTenure*), and gender (*Woman*). In addition, since CEOs' personal religiosity may be associated with financial manipulation, following Nazrul et al. (2022), we control for CEOs' individual religiosity by identifying whether they are involved with any religious organizations (*Religious*). We include managerial ability (*Ability*) because Demerjian,

Lev, Lewis, and McVay (2013) document a positive association between managerial ability and earnings quality. We also control for CEOs' professional background and experience such as whether they are a Certified Public Accountant (*CPA*), whether they worked as auditors in the past (*Auditor*), and whether they had experience in the legal industry (*Legal*). [15]

3.4. Sample and descriptive statistics

We start our sample construction with 50,516 firm-years that are covered by both BoardEx and Compustat databases. The sample period is from 2000 to 2020, since the BoardEx database starts in year 2000. We obtain CEO information for each firm-year and identify 15,530 unique individuals. We collect financial data from Compustat, stock price and return data from CRSP, data on analysts from I/B/E/S, data on institutional holdings from Thomson Financial, auditor and internal control data from Audit Analytics, information about boards of directors from BoardEx, civic and social associations data from the Northeast Regional Center for Rural Development, and US Religion Census data to construct control variables. Requiring data needed to construct control variables leads to our final sample which consists of 42,502 firm-years with 4,582 unique CEOs.

As described above, since Rule 33-8400 became effective in year 2004, non-reliance restatement data from Audit Analytics begins in 2004. Therefore, the sample period for our analyses involving non-reliance restatements is limited to 2004-2020, where we obtain 38,439 firm-years. We obtain data on SEC or DOJ enforcement actions from Call et al. (2018).[16] We merge this dataset with our sample and identify 641 financial misrepresentations for 29,229 firm-years from 2000 to 2012. Table 1 summarizes our sample selection procedure. Please note that in our regression analyses, when *Irregularity* is dependent variable, we exclude firm-years with SEC or DOJ enforcement from the control group. Similarly, when *Enforcement* is dependent variable, we exclude firm-years with restatements from the control group. In other words, we make sure that

[15] Please see Appendix for more detailed definitions of all the control variables.
[16] This dataset is publicly available and can be accessed at https://research.chicagobooth.edu/arc/journal-of-accounting-research/online-supplements for Volume 56.

our control group was clean of accounting manipulations in either form in all analyses.[17]

Table 2, Panel A provides descriptive statistics of the variables used in our study. To reduce the impact of outliers, we winsorize all continuous variables at 1 percent and 99 percent. Panel A presents the mean, standard deviation, 25th percentile, median, and 75th percentile of all variables used in our analyses. The mean *Prosocial* is 0.368, suggesting that 36.8 percent of firm-years in our sample have prosocial CEOs. In addition, untabulated results show that out of 4,592 unique CEOs, 1,771 CEOs are prosocial (i.e., involved in charitable organizations) and 3,118 CEOs are involved in other non-charitable organizations.[18] The mean *Irregularity* is 0.076, which means that 7.6 percent of firms-years in our sample have accounting irregularities. Meanwhile, the average *Enforcement* is 0.022, suggesting that during 2000-2012, 2.2 percent of our sample have financial misrepresentations investigated by the SEC or DOJ. These percentages of accounting irregularities and financial misrepresentations are comparable with prior studies such as Bertomeu, Cheynel, Floyd, and Pan (2021) and Call et al. (2018). *OtherActivities* has a mean of 0.648, suggesting that 64.8 percent of firm-years in our sample have CEOs who are involved with other non-charitable organizations. Firm and CEO characteristics are largely consistent with prior research. For example, the mean (median) firm size is 560.02 (552.11) million dollars (log-transformed as 6.328 and 6.314 respectively), book-to-market ratio is 0.511 (0.415), and leverage is 0.505 (0.484). The mean (median) CEO age (*CEOAge*) is 55.814 (56) and CEO tenure (*CEOTenure*) is 8.849 (7). 3.2 percent of firm-years in our sample have a female CEO (the mean of *Woman* is 0.032) and 5.4 percent have a CEO with religious involvement (the mean of *Religious* is 0.054).

Table 2, Panel B presents a Pearson (Spearman) correlation matrix for these variables. *Prosocial* is negatively correlated with both *Irregularity* and *Enforcement*, providing preliminary evidence that having a prosocial CEO is negatively associated with accounting manipulation. In

[17] This procedure results in a slightly different sample size in our main regressions of 38,406 firm-years for regressions involving *Irregularity*, and 28,589 firm-years for regressions involving *Enforcement*.
[18] 1,331 CEOs are involved in both charitable and non-charitable organizations.

addition, the correlations between *Prosocial* and most control variables are significant, highlighting the importance of controlling these firm characteristics. Finally, the signs and significance levels of the correlations among control variables are largely consistent with expectations. For example, the relatively high correlations are those between *Size* and *Analyst*, between *ROA* and *Loss*, and between *Size* and *BoardSize* (0.727, -0.597, and 0.632 for Pearson correlations, respectively).[19]

4. Empirical Results

4.1. Testing hypothesis

4.1.1. Main analysis

Our main hypothesis predicts that prosocial CEOs are less likely to manipulate financial statements. To test this hypothesis, we estimate the following linear probability model:[20]

$$\begin{aligned} Accounting\ Manipulation_{i,t} = {} & \alpha_0 + \alpha_1 Prosocial_{i,t} + \beta_1 OtherActivities_{i,t} + \\ & \beta_2 Size_{i,t} + \beta_3 FirmAge_{i,t} + \beta_4 BTM_{i,t} + \beta_5 Analysts_{i,t} + \beta_6 InstOwn_{i,t} + \beta_7 ROA_{i,t} + \\ & \beta_8 Loss_{i,t} + \beta_9 SalesGrowth_{i,t} + \beta_{10} SizeAdjRet_{i,t} + \beta_{11} Leverage_{i,t} + \beta_{12} Volatility_{i,t} + \\ & \beta_{13} Complexity_{i,t} + \beta_{14} AbsAccruals_{i,t} + \beta_{15} Big4Auditor_{i,t} + \beta_{16} ICWeakness_{i,t} + \\ & \beta_{17} Post404_{i,t} + \beta_{18} BoardSize_{i,t} + \beta_{19} BoardIndep_{i,t} + \beta_{20} DualRole_{i,t} + \\ & \beta_{21} BoardCharity_{i,t} + \beta_{22} SocialCapital_{i,t} + \beta_{23} ReligiousAdherence_{i,t} + \\ & \beta_{24} CEOAge_{i,t} + \beta_{25} CEOTenure_{i,t} + \beta_{26} Religious_{i,t} + \beta_{27} Ability_{i,t} + \beta_{28} Woman_{i,t} + \\ & \beta_{29} CPA_{i,t} + \beta_{30} Auditor_{i,t} + \beta_{31} Legal_{i,t} + Industry\ fixed\ effects + \\ & Year\ fixed\ effects + \varepsilon. \end{aligned} \quad (1)$$

Accounting Manipulation represents one of the two indicator variables: *Irregularity* and *Enforcement*, as defined previously. *Prosocial* equals one if the CEO of that firm-year is involved with charitable organizations, and zero otherwise. Our hypothesis predicts the coefficient on *Prosocial* to be significantly negative, i.e., prosocial CEOs are less likely to manipulate earnings. All the control variables are discussed previously, and the detailed variable definitions can be

[19] Because of these high correlations, we test for multicollinearity. No variance inflation factor is greater than 10.
[20] We report a linear probability model instead of a non-linear logit or probit model for ease of implementation of fixed effects and interpretation of coefficients. Our results are robust to estimating the regressions with a probit specification.

found in the Appendix. Finally, we include both year and industry fixed effects in the regression and cluster standard errors by firm.[21]

Table 3 presents the results from estimating Equation (1). Our dependent variable is *Irregularity* in Column (1). Consistent with our hypothesis, we find that the coefficient on *Prosocial* is -0.012 and significant ($p<0.05$). This result suggests that having a prosocial CEO reduces a firm's likelihood of having an accounting irregularity by 1.2 percent on average, compared to firms with a non-prosocial CEO. This is an economically significant improvement since we find that 7.6 percent of the firms in our sample have accounting irregularities in Table 2, Panel A. In Column (2), where *Enforcement* is the dependent variable, the coefficient on *Prosocial* is -0.002 and significant ($p<0.05$). Given that the mean *Enforcement* in our sample is 0.022, the effect of having a prosocial CEO on the likelihood of having financial misrepresentations sanctioned by regulators is economically meaningful. Taken together, these results are consistent with our hypothesis that prosocial CEOs are less likely to engage in accounting manipulations.

Turning to control variables, the coefficients are generally consistent with prior literature. In Column (1), *Size* is significantly positive, consistent with large firms being more likely to detect financial misstatements and disclose them. *InstOwn* is significantly negative, suggesting that institutional investors, as sophisticated investors, can reduce the likelihood of accounting manipulations (Bushee 1998). *Loss*, *Volatility*, and *Complexity* are all significantly positive, suggesting that firms with poor performance, high risk, and high uncertainty are more likely to have accounting irregularities. *ICWeakness* is also significantly positive, consistent with prior research's findings that firms with internal control weakness are more likely to have low earnings

[21] Kim, Park and Wier (2012) show that firms' corporate social responsibilities (CSR) are positively associated with their earnings quality. As a robustness test, we control for firms' CSR performance, and all our results continue to hold. However, since Feng et al. (2023) show that prosocial CEOs engage their firms in more CSR activities, it is possible that firms' CSR activities and high earnings quality are both affected by prosocial CEOs, or CSR activities are one channel through which prosocial CEOs improve earnings quality. Therefore, we do not control for CSR in our main analyses.

quality (Doyle, Ge, and McVay 2007). Both *BoardSize* and *BoardIndep* are negative and significant at the 10 percent and 5 percent level, respectively. This is consistent with the notion that effective Board of Directors curb accounting irregularities through their monitoring role. *ReligiousAdherence* is significantly negative, consistent with prior research and suggesting that firms operating in areas with strong religious social norms are less likely to have financial irregularities. Finally, CEOs' age and tenure are negatively and positively associated with accounting manipulations, respectively, suggesting that younger CEOs and CEOs with longer tenure are more likely to manage earnings.

In Column (2), the coefficient on *OtherActivities* is negative and significant ($p<0.10$), suggesting that CEOs' participation in general off-the-job activities is negatively associated with financial misrepresentation. Since involvement in off-the-job activities is likely associated with CEOs' energy and ability, this result is consistent with the notion that earnings quality is positively associated with managerial ability, consistent with the findings of Demerjian et al. (2013). Both *Size* and *Analysts* are positively associated with *Enforcement*, probably because the SEC and DOJ tend to target and focus their limited resources on relatively large firms (Dechow et al. 2010). The coefficients on *InstOwn*, *Volatility*, *ICWeakness*, *BoardIndep*, and *CEOTenure* are similar to those in Column (1). Both *ROA* and *SocialCapital* are significantly negative, similar to the implication of *Loss* and *ReligiousAdherence* in Column (1), respectively. In addition, *Big4Auditor* is negatively associated with *Enforcement*, suggesting that firms with Big-Four auditors are less likely to have financial misrepresentations.[22]

4.1.2. Analysis based on CEO turnovers

Although the results discussed above are consistent with our hypothesis, one alternative

[22] As an alternative way to control for these differences between firms led by prosocial CEOs and by non-prosocial CEOs, we use the entropy balancing approach to conduct our main analysis. Following Hainmueller and Xu (2013), we balance the first three moments of all the control variables between firm-years with and without prosocial CEOs. We then regress our outcome variables (*Irregularity* and *Enforcement*) on our treatment variable, *Prosocial*, using the reweighted data. The coefficients on *Prosocial* in both regressions remain significantly negative.

explanation is that the negative association between prosocial CEOs and accounting manipulations is driven by underlying firm characteristics such as firm culture. For example, Liu (2016) finds that firms with a corruption culture are more likely to engage in earnings management and accounting fraud. It is possible that prosocial CEOs avoid working for companies with a corruption culture or that companies with a corporate culture of being honest and transparent are more likely to hire prosocial CEOs, leading to a negative association between having a prosocial CEO and accounting manipulations. To address this concern, we use a sample of firms with CEO turnovers to investigate whether a change in CEO prosocial type is associated with a change in accounting information quality. To the extent that firm characteristics do not change significantly around a CEO turnover, the change in accounting information quality in this subsample is more likely to be driven by the change in the CEO's prosocial type. We estimate the following regression:

$$Accounting\ Manipulation_{i,t} = \alpha_0 + \alpha_1 ProsocialChange_i + \alpha_2 Post_{j,t} + \alpha_3 ProsocialChange_i \times Post_{j,t} + \sum \beta \cdot Controls + Industry\ fixed\ effects + Year\ fixed\ effects + \varepsilon. \quad (2)$$

For firm *i* with a CEO turnover, *ProsocialChange*$_i$ is defined as the succeeding CEO's *Prosocial* measure minus the preceding CEO's *Prosocial* measure. This variable represents how the CEO's prosocial tendency changes around the turnover. *ProsocialChange* equals one for all years of firm *i* if a prosocial CEO replaces a non-prosocial CEO, zero if there is no change in the CEO's prosocial tendency, and negative one if a non-prosocial CEO replaces a prosocial CEO. *Post*$_{i,t}$ equals one if year *t* is after a CEO turnover, and zero if year *t* is before a CEO turnover. The year of turnover is excluded in this analysis. Therefore, CEO turnovers that lead to a change of CEO prosocial types (*ProsocialChange* =1 or -1) are our treatment group; CEO turnovers that do not lead to any prosocial tendency changes (*ProsocialChange* = 0) are the control group. The coefficient on *ProsocialChange* (α_1) represents the difference in the likelihood of accounting manipulations before the CEO turnover for firms with CEO turnovers involving a change in CEO

prosocial types. The coefficient on *Post* (α_2) captures the difference in the likelihood of accounting manipulations between the predecessor CEO and the successor CEO for firms with *ProsocialChange* equal to zero (i.e., no change in the CEO's prosocial tendency around the turnover). The coefficient on the interaction between *ProsocialChange* and *Post* (α_3) captures the incremental change in the likelihood of manipulations after the CEO turnover for firms with changes in CEO prosocial tendency relative to firms with no change in CEO prosocial tendency. If a prosocial CEO is less likely to manipulate earnings, the change of CEO's prosocial tendency should be negatively associated with the likelihood of having an accounting manipulation. We thus expect α_3 to be negative. The controls are the same as those in Equation (1).

Figure 1 presents an example where there is a CEO turnover in year 6 for a firm during a ten-year period. In this example, CEO A is the preceding CEO and CEO B is the succeeding CEO. In addition, CEO A is non-prosocial (*Prosocial* = 0) and CEO B is prosocial (*Prosocial* = 1). When we estimate Equation (2), we use all these ten years for this firm excluding year 6: *ProsocialChange* = 1 for all years, *Post*=0 for each year from year 1 to 5, and *Post* =1 for each year from year 7 to 10. More importantly, *Post* can only be defined for one CEO turnover for each firm. As shown in this example, if there is another turnover in year 11, all the years for CEO B will be pre-turnover years for this second turnover. Therefore, we keep firms with only one CEO turnover during our sample period for this analysis.[23]

Table 4 presents results from the estimation of Equation (2). In Column (1), *Irregularity* is the dependent variable. Sample used in this column includes 21,722 firm-years around 2,886 CEO turnovers, where 2,413 CEO turnovers involve a change of CEO prosocial types, and 473 CEO turnovers lead to no prosocial tendency changes. The coefficient on *Post* is insignificant, suggesting that on average, there is no significant change in the likelihood of having accounting

[23] As a robustness check, when we keep only the first CEO turnover for firms with more than one CEO turnover in the turnover sample, our results are qualitatively the same.

irregularities after a CEO turnover for firms with *ProsocialChange* equal to zero. However, the coefficient on the interaction term, *Post*×*ProsocialChange*, is -0.048 and significant. This result suggests that the likelihood of having accounting irregularities decreases when the CEO's prosocial tendency increases after the CEO turnover, and vice versa. In Column (2), when *Enforcement* is the dependent variable, the coefficient on *Post* is significantly negative. This suggests that the likelihood of having financial misrepresentations is significantly lower for firms with *ProsocialChange* equal to zero. The coefficient on the interaction term is also significantly negative, suggesting that average likelihood of having financial misrepresentations targeted by regulatory enforcement decreases even more when firms replace a non-prosocial CEO with a prosocial CEO. We also check whether these results are driven by CEO turnovers with prosocial tendency increase (*ProsocialChange* = 1) or with prosocial tendency decrease (*ProsocialChange* = -1). We repeat the analyses above by using these two treatment groups separately.[24] We find similar results for both types of CEO turnovers (untabulated), suggesting that our results are not driven by only one type but by both.

It is possible that certain underlying changes in firms cause firms to change both their CEOs and accounting practices simultaneously. To address this concern, we further restrict CEO turnovers to those that are due to exogenous reasons, including preceding CEOs' death or health issues. We obtain data on the reasons for CEO departures from Gentry et al. (2021) and identify CEO turnovers due to the preceding CEO's death or illness in our sample.[25] Out of 2,886 CEO turnovers, we identify 117 of them that are due to preceding CEOs' death or health issues. In Columns (3) and (4) when we limit CEO turnovers to those attributable to exogenous reasons, we continue to find similar results on the interaction term to those reported in the first two columns.

[24] For analysis on *Irregularity*, there are 1,073 CEO turnovers with *ProsocialChange* = 1 and 1,340 CEO turnovers with *ProsocialChange* = -1; For analysis on *Enforcement*, there are 667 CEO turnovers with *ProsocialChange* = 1 and 787 CEO turnovers with *ProsocialChange* = -1.

[25] We use the January 31, 2023 version of the data shared by Gentry et al. (2021). The dataset is publicly available and can be accessed at https://doi.org/10.5281/zenodo.7591606.

In sum, results from the CEO turnover analyses further strengthen our inference that prosocial CEOs are less likely to be involved in accounting manipulations and thus improve information quality, and that this effect is unlikely to be driven by underlying firm characteristics.

4.2. Refined measure of prosocial tendency

As discussed in Section 3.1, we control for CEOs' involvement in non-charitable organizations and managerial ability in all our tests to address this concern that CEOs' other characteristics, such as ability or energy, are driving the associations between prosocial tendency and accounting manipulations. In this section, we further alleviate it by investigating CEOs' involvement in different types of charitable organizations.

While IRS lists a variety of organizations as charitable, some are more directly involved in increasing the welfare of others. For example, charitable organizations related to human services such as the American Red Cross and homeless person services are more directly related to caring for other people's basic needs (rather than personal hobbies) than charitable organizations such as art museums. If CEOs are involved with charitable organizations due to their concern for others, they would be more involved with organizations that directly focus on caring for others' basic needs, which would lead to a stronger negative association between these CEOs and accounting manipulations. In contrast, if CEOs' involvement in charitable organizations reflects other individual characteristics such as ability, we would not expect their involvement to vary with charity type. The association between prosocial CEOs and accounting manipulations also should not differ across charity types.

To test this conjecture, among the IRS's charitable organizations, we identify organizations that are more related to increasing the welfare of others, such as those involved with education, medical research, youth development, and human services.[26] We then construct an indicator

[26] To identify organizations that are more directly related to improving the well-being of others, each of the four authors went over the IRS classification list independently. In Table 5, Panel B, we use the union of organizations

variable, *Prosocial_Refined*, which equals one when the CEO is involved with these organizations, and zero otherwise.[27] We include this variable as another treatment variable in our main regressions. The coefficient on *Prosocial_Refined* should be negative if prosocial CEOs with *Prosocial_Refined* equal to one have an even lower likelihood of manipulating financial statements than other prosocial CEOs.

Table 5 presents regression results based on this refined classification of charitable organizations. In both Column (1) and (2), the coefficient on *Prosocial* remains significantly negative. More importantly and consistent with our expectation, the coefficient on *Prosocial_Refined* is significantly negative ($p<0.01$ in both columns). This result suggests that compared with other prosocial CEOs, CEOs who are involved in charitable organizations that are more directly related to caring for others are even less likely to manipulate financial statements.

4.3. Cross-sectional tests

In this subsection, we examine whether the association between a CEO's prosocial tendency and accounting manipulations is stronger when a firm is under financial distress and when a CEO's wealth is more sensitive to changes in firm risk. In these scenarios, we expect the effect of prosocial tendency to be stronger since managers have more incentives to manipulate financial statements and thus are more subject to the agency problem. In addition, we examine if the associations found are even stronger when a firm has a CFO who is also prosocial.

First, when a company is in financial distress, the agency problem is particularly acute as managers have greater career concerns. Consistent with this idea, prior studies document that managers of financially distressed firms have strong incentives to manipulate earnings to reduce

identified by each author to define charitable organizations. As a robustness check, we use the intersection of organizations identified by each author to define charitable organizations, and our results still hold. Nevertheless, we acknowledge that the construction of *Prosocial_Refined* is subjective.

[27] Specifically, *Prosocial_Refined* equals one when the IRS activity code (National Taxonomy of Exempt Entities code, NTEE code) for the organization is one of the following: B, C20, C27, C30, C32, C34, C35, C36, E, F, G, H, L40, L41, O, P, T, and zero otherwise. Full explanation for the NTEE codes is available at https://nccs.urban.org/publication/irs-activity-codes.

the negative impact of poor performance emanating from financial distress (Dechow et al. 2010; Rosner 2003). Thus, we expect prosocial and non-prosocial CEOs of financially distressed firms to exhibit a larger difference in the likelihood of accounting manipulations. To identify firms under financial distress, we calculate Altman's Z-score for each firm-year and construct an indicator variable, *FinDistress*, which equals one if the firm's Z-score in that year is below 1.81 (Altman 1968), and zero otherwise. We interact *FinDistress* with *Prosocial* and expect the coefficient on this term to be negative based on our conjecture that the effect of a CEO's prosocial tendency on reducing accounting manipulation is stronger for firms under financial distress.

Second, Armstrong et al. (2013) find that the sensitivity of a manager's wealth to changes in firm risk (portfolio vega) creates an incentive for the manager to manipulate earnings. We expect the negative association between CEOs' prosocial tendency and accounting manipulations to be more pronounced when CEOs' portfolio vega is relatively high. Following prior research (Core and Guay 2002; Armstrong et al. 2013), we calculate CEOs' portfolio vega (*Vega*) as the dollar change in the CEO's equity portfolio for a 0.01 change in their firm's stock return volatility. Since the calculation of *Vega* requires detailed compensation data from the ExecuComp database, which only covers S&P 1500 firms, we limit our sample for this analysis to S&P 1500 firms. We add *Vega* as an additional control variable and interact it with *Prosocial* in our analysis. We expect the coefficient on the interaction term to be negative. In addition, we control for compensation delta as Armstrong et al. (2013) conclude that it is important to consider both portfolio delta and portfolio vega when assessing the relation between equity incentives and misreporting.

Finally, we consider the role of chief financial officers (CFOs), whose main responsibility is to oversee financial reporting. Prior studies demonstrate that CFOs have a significant impact on financial reporting and disclosure outcomes (e.g., Ge et al., 2011; Jiang, Petroni, and Wang 2010). Therefore, we expect firms to be least likely to manipulate financial statements when both their

CEO and CFO are prosocial and concerned about shareholders' welfare. We obtain CFO information for each firm-year in our sample and construct an indicator variable, *ProsocialCFO*, which equals one if the CFO is involved in charitable organizations and zero otherwise. We interact *ProsocialCFO* with *Prosocial* and expect the coefficient on the interaction term to be negative.

Table 6 presents results for these three cross-sectional tests. In Columns (1) and (2) where we focus on financial distress, the coefficients on the interaction of *Prosocial* and *FinDistress* are negative and significant. This result suggests that CEOs' prosocial tendency has a stronger effect of reducing accounting manipulation for firms under financial distress than for other firms, consistent with our expectation. In Columns (3) and (4), we examine the effect of *Vega* on the association between CEO prosocial tendency and accounting manipulation. We find that the coefficient on the interaction between *Prosocial* and *Vega* is significantly negative when the dependent variable is *Irregularity* but is insignificant when the dependent variable is *Enforcement*. These results provide some support for our expectation that the effect of CEOs' prosocial tendency on accounting manipulation is stronger when their portfolio vega is higher. [28] In Columns (5) and (6), we compare firms with and without prosocial CFOs. The coefficients on the interaction between *Prosocial* and *ProsocialCFO* are negative and significant in both columns, suggesting that firms with both prosocial CEOs and CFOs are even less likely to have accounting manipulations.

In untabulated analyses, we find that prosocial CFOs themselves have a significant effect on financial reporting outcomes. Specifically, we re-run our regressions of *Irregularity* and *Enforcement* on CEO prosocial tendency and CFO prosocial tendency without the interaction of their prosocial tendencies. After controlling for CEOs' prosocial tendency, we find that firms with prosocial CFOs are less likely to have accounting irregularities and enforcements, but the statistical

[28] One possible reason for the weak result is that our sample size is reduced by 41 percent and 26 percent, respectively, in these two columns due to data requirements for calculating *Vega*.

significance of the results is weaker than the results for prosocial CEOs. This finding suggests that: (1) the prosocial tendency of CFOs also matters for financial reporting outcomes; (2) CEOs' prosocial tendencies have a greater influence on egregious reporting choices than CFOs' prosocial tendencies, consistent with the inference from Feng et al. (2011).

5. Additional Analyses and Robustness Tests

5.1. Voluntary disclosures

5.1.1. Bad news withholding

In our main analyses, we use the manipulation of mandatory financial reports to capture accounting information quality. Companies also voluntarily disclose information to investors; these voluntary disclosures are highly informative and benefit investors by reducing information asymmetry and the cost of capital (e.g., Cheynel 2013; Francis, Nanda, and Olsson 2008). In this section, we examine the quality of voluntary disclosures. Specifically, we examine a company's tendency to withhold bad news and the frequency of issuing management forecasts.

Prior studies (e.g., Kothari, Shu, and Wysocki 2009) document that managers have incentives to withhold bad news relative to good news. Moreover, managers withhold bad news mainly for their personal interests, such as benefiting their career or profiting from insider trading (Ali et al., 2019; Kothari et al., 2009; Roychowdhury and Sletten 2012;). Withholding bad news, however, hurts shareholders' interests as it leads to higher information asymmetry and cost of capital. Therefore, as Kothari et al. (2009) suggests, incentives to withhold bad news is largely driven by the agency problem. Because prosocial CEOs are less subject to the agency problem, we expect prosocial CEOs to be less likely to withhold bad news.

Following Roychowdhury and Sletten (2012), we measure managers' tendency to withhold bad news relative to good news in three steps. We first calculate two returns: Earnings announcement (EA) returns, defined as the absolute cumulative market-adjusted returns during

three-day window (-1, +1) around an EA, and non-EA returns, defined as the absolute cumulative market-adjusted returns during the non-EA period. The non-EA period is from two trading days after the prior quarter's EA to two trading days before current quarter's EA. Second, we construct a variable, *Ln(NewsRatio)*, calculated as the natural logarithm of EA returns divided by non-EA returns, multiplied by 100. This variable captures the informativeness of an EA relative to news released during the non-earnings announcement period during the quarter. Finally, we construct a bad news quarter indicator variable, *BadNews*, which equals one if the cumulative market-adjusted return from two days after the prior quarter's EA to one day after the current quarter's EA is negative. Roychowdhury and Sletten (2012) argue that if managers withhold bad news rather than voluntarily disclose it before earnings announcements, earnings announcements should be more informative, and *Ln(NewsRatio)* should be higher for bad news quarters (*BadNews* =1) than for good news quarters. They find empirical evidence consistent with this argument.

To investigate whether prosocial CEOs are less likely to withhold bad news than non-prosocial CEOs, we estimate the following regression:

$$
\begin{aligned}
Ln(NewsRatio)_{\,i,t,q} = {} & \alpha_0 + \alpha_1 Prosocial_{i,t} + \alpha_2 BadNews_{i,t,q} + \alpha_3 Prosocial_{i,t} \times \\
& BadNews_{i,t,q} + \beta_1 OtherActivities_{i,t} + \beta_2 Size_{i,t,q} + \beta_3 FirmAge_{i,t,q} + \beta_4 BTM_{i,t,q} + \\
& \beta_5 Analyst_{i,t,q} + \beta_6 InstOwn_{i,t,q} + \beta_7 ROA_{i,t,q} + \beta_8 Loss_{i,t,q} + \beta_9 SalesGrowth_{i,t,q} + \\
& \beta_{10} SizeAdjRet_{i,t,q} + \beta_{11} Leverage_{i,t,q} + \beta_{12} Volatility_{i,t} + \beta_{13} Complexity_{i,t,q} + \\
& \beta_{14} AbsAccruals_{i,t,q} + \beta_{15} Big4Auditor_{i,t} + \beta_{16} ICWeakness_{i,t} + \beta_{17} Post404_{i,t} + \\
& \beta_{18} BoardSize_{i,t} + \beta_{19} BoardIndep_{i,t} + \beta_{20} DualRole_{i,t} + \beta_{21} BoardCharity_{i,t} + \\
& \beta_{22} SocialCapital_{i,t} + \beta_{23} ReligiousAdherence_{i,t} + \beta_{24} CEOAge_{i,t} + \\
& \beta_{25} CEOTenure_{i,t} + \beta_{26} Religious_{i,t} + \beta_{27} Ability_{i,t} + \beta_{28} Woman_{i,t} + \beta_{29} CPA_{i,t} + \\
& \beta_{30} Auditor_{i,t} + \beta_{31} Legal_{i,t} + \beta_{32} InsiderSales_{i,t,q} + \beta_{33} BiasAdj_{i,t,q} + \\
& \beta_{34} TradeDays_{i,t,q} + \beta_{35} HighTech_{i,t,q} + Industry\ fixed\ effects + \\
& Year\ fixed\ effects + \varepsilon. \qquad (3)
\end{aligned}
$$

In this equation, subscript *i* refers to firm *i*, *t* refers to fiscal year *t*, and *q* refers to fiscal quarter *q*. The coefficient on *Prosocial* (α_1) represents the difference in the informativeness of EAs for good news quarters between prosocial CEOs and non-prosocial CEOs. The coefficient on *BadNews*

(α_2) represents the difference in the informativeness of EAs between bad news and good news quarters for non-prosocial CEOs. A positive α_2 is consistent with bad news withholding. Our main coefficient of interest is on the interaction term of *Prosocial* × *BadNews*, α_3, which captures the incremental effect of the CEO's prosocial tendency on bad news withholding. If a prosocial CEO is less likely to withhold bad news, the difference in the informativeness of EAs between bad news and good news quarters for firms with prosocial CEOs should be smaller than that difference for firms with non-prosocial CEOs. Thus, we expect α_3 to be negative.

In addition to the control variables used previously, following Roychowdhury and Sletten (2012), we include following control variables: insider sales during the quarter (*InsiderSale*), the ratio of news released during a random three-day window in the quarter relative to the rest of the quarter (*BiasAdj*), the number of trading days in the quarter (*TradeDays*), and whether the firm is in a high technology industry (*HiTech*). We require firm-quarter level data and obtain 163,551 firm-quarters from 2000-2020 for this analysis.

Column (1) of Table 7, Panel A presents the results from our analysis on bad news withholding. The coefficient on *Prosocial* is insignificant, suggesting that during good news quarters, there is no difference in the informativeness of EAs between firms with prosocial CEOs and those with non-prosocial CEOs. The coefficient on *BadNews* is 0.131 and significant at the 1 percent level, consistent with non-prosocial CEOs withholding bad news and deferring more news to be released through earnings announcements. Finally, the coefficient on *Prosocial* × *BadNews* is -0.031 and significant at the 5 percent level, suggesting that prosocial CEOs are less likely to withhold bad news than non-prosocial CEOs, consistent with our expectation.

5.1.2. Management forecasts

Management forecasts are one of main voluntary disclosure mechanisms firms use to inform investors, analysts, and other market participants about future earnings (e.g., Hirst, Koonce,

and Venkataraman 2008). Hence, our second voluntary disclosure measure is the number of annual earnings forecasts issued during the year, *NumForecasts*. We obtain earnings forecasts data from the I/B/E/S guidance database. Our sample period for this analysis begins in 2002, after Reg FD and the Sarbanes–Oxley Act became effective, which significantly altered management forecasting behavior (e.g., Black, Christensen, Kiosse, and Steffen 2017). Using a sample of 39,728 firm-years from 2002-2020, we estimate Equation (1) by replacing the dependent variable, *Accounting Manipulation*, with *NumForecasts*. Column (2) of Table 7, Panel A presents results from this analysis. The coefficient on *Prosocial* is 0.083 and significant at the 1 percent level, suggesting that prosocial CEOs, on average, issue forecasts more often than non-prosocial CEOs.

We also conduct analyses on the above two voluntary disclosure measures using the subsamples of firms with CEO turnovers (all turnovers and turnovers due to death or illness), similar to the analyses in Section 4.1.2. Table 7, Panel B presents the results of these analyses. In Column (1) and (3) where we examine bad news withholding, our focus is on the three-way interaction term, *ProsocialChange*×*Post*×*BadNews*. The coefficient on this term is significantly negative in both columns. This result suggests that the change in a firm's tendency to withhold bad news is negatively associated with the change of its CEO's prosocial tendency around a CEO turnover. In other words, a firm's tendency to withhold bad news decreases significantly more after CEO turnovers for firms replacing a non-prosocial CEO with a prosocial CEO than for other firms, and vice versa. In Column (2) and (4), when we examine the number of earnings forecasts, the coefficient on the interaction term *ProsocialChange*×*Post* is significantly positive in both columns, suggesting that the change of a firm's frequency of earnings forecast issuance is positively associated with the change of its CEO's prosocial tendency around a CEO turnover. A firm's earnings forecast frequency increases significantly more after CEO turnovers for firms replacing a non-prosocial CEO with a prosocial CEO than for other firms, and vice versa.

In sum, our additional analyses examining firms' voluntary disclosures demonstrate that prosocial CEOs are less likely to withhold bad news and are likely to issue more earnings forecasts, thus providing investors with greater voluntary disclosure transparency.

5.2. Other CEO characteristics

While the cross-sectional tests based on financial distress and portfolio vega provide support to our main results, it is possible that these results are due to other personalities such as integrity. To address this concern, we partition prosocial CEOs based on the extent of their prosocial tendencies using the refined measure of prosocial tendency, *Prosocial_Refined*. Specifically, if a prosocial CEO is involved with charitable organizations that are more related to increasing the welfare of others, such as organizations involved with education, medical research, youth development, and human services (i.e., *Prosocial* =1 and *Prosocial_Refined* = 1 for this CEO), we consider them a high-prosocial CEO, i.e., with a stronger concern for others. If a CEO is prosocial but is not involved with these organizations (i.e., *Prosocial* =1 and *Prosocial_Refined* = 0 for this CEO), we consider them a low-prosocial CEO. Because a CEO's level of integrity should not be associated with the types of charitable organizations they are involved with, differences between these two groups of CEOs are thus not caused by integrity but instead by concern for others.

In Table 8, we re-run our cross-sectional tests using these two treatment subsamples separately. Panel A is based on financial distress. In Column (1) and (2), the dependent variable is *Irregularity*. The treatment groups are low-prosocial CEOs in Column (1) and high-prosocial CEOs in Column (2), respectively. The control groups are always non-prosocial CEOs. We find that the interaction term, *Prosocial* × *FinDistress*, is significantly negative in both columns, consistent with our results in Table 6. When we compare the coefficients on *Prosocial* × *FinDistress* in these two columns, a Wald chi-square test shows a significant difference ($\chi 2 = 2.76$

and significant at 10%). This suggests that high-prosocial CEOs are significantly less likely than low-prosocial CEOs to have irregularities when their firms are under financial distress. Column (3) and (4) show similar results when the dependent variable is *Enforcement*. In Panel B, the analysis is based on portfolio vega. We find that the interaction term, *Prosocial* × *Vega*, is significantly negative in Column (2) and (4) but insignificant in Column (1) and (3). In addition, Wald chi-square tests show that the coefficients in Columns (3) and (4) are significantly different. In sum, we find that our cross-sectional analysis results based on earnings management incentives are stronger for high-prosocial CEOs than for low-prosocial CEOs, suggesting that the results we document in our cross-sectional analysis are attributable to prosocial tendency instead of other CEO characteristics.

In addition, although we control for various personal characteristics of the CEO, it is still possible that involvement in charity work is correlated with some other personal characteristics such as narcissism and integrity, which have been shown by prior research to be associated with earnings quality. For example, a narcissistic person may participate in charitable organizations just to show their superiority relative to others. Prior research finds that executive narcissism is associated with lower financial reporting quality (Ham, Lang, Seybert, and Wang, 2017). An individual's prosocial tendency may also be correlated with their integrity. Dikolli, Keusch, Mayew and Steffen (2020) find that audit fees increase as CEOs' integrity decreases. However, they fail to find any association between CEOs' integrity and financial misstatements. To address the concern that our results are driven by these other CEO personal characteristics, we obtain data on CEO narcissism, and CEO behavioral integrity.[29] We add these measures in our main analyses as additional controls for subsamples where the data is available. We find qualitatively similar

[29] Following prior studies (e.g., Olsen and Stekelberg 2016; Judd, Olsen and Stekelberg 2017), we use CEOs' relative cash pay, noncash pay, and the prominence of their photograph in the annual report to measure their narcissism. We thank Kari Olsen for sharing his data on CEO narcissism. For CEO behavioral integrity, we use a linguistic-based measure based on CEOs' annual shareholder letters that was developed by Dikolli et al. (2020). We thank Dikolli et al. for sharing their data on CEO integrity.

results for *Irregularity*. However, our results on *Enforcement* become insignificant, probably due to the significant decrease in sample sizes.[30]

5.3. Robustness tests exploiting within-firm variation in *Prosocial*

Previously, we estimated Equation (2) to examine changes in accounting manipulation around CEO turnovers. As an alternative way to identify such within-firm variation, we estimate Equation (1) using our CEO turnover sample and replacing the industry-fixed effects with firm fixed effects. Since firm fixed effects control for time-invariant characteristics of the firm, we remove firms with no change in CEO prosocial type around CEO turnover.[31] In untabulated analyses, we find that all our results continue to hold.

In addition, with respect to our CEO turnover analysis, to address the concern that CEOs turnovers may be endogenous, we also conduct an additional analysis by using all turnovers but excluding firms if their ROA is in the bottom decile within its industry in the year before the turnover. This is because when firms experience poor performance, they are likely to make changes and replace their CEOs at the same time. Untabulated results show that our results continue to hold in this subsample, alleviating concerns that our results are driven by extreme poor performance before CEO turnovers.

5.4. Alternative measure of accounting manipulation

In our main tests, we use accounting irregularities and SEC enforcement actions as our main measures of accounting quality. To further strengthen the inference that prosocial CEOs are positively associated with accounting quality, we use the M-score developed by Beneish (1999) as another alternative measure of accounting quality. The M-score represents the likelihood of a firm manipulating its earnings. Following Beneish (1999) and other prior studies (e.g., Beneish, Lee,

[30] When we control for CEO narcissism and CEO integrity, our sample size is reduced by 85% and 75%, respectively.
[31] As Breuer and deHaan (2023) point out, fixed effect (FE) groups "with little or no within-group variation in the X of interest play a limited role" in estimating the coefficients in the regression and "FE can therefore mask the effective sample used to identify results."

and Nichols 2013; Beneish and Vorst 2022), we calculate each firm-year's M-score and construct an indicator variable, *Manipulator*, which equals one if the M-score exceeds -1.78 and zero otherwise. We replace the dependent variable in equation (1) with *Manipulator* and find that the coefficient on *Prosocial* is significantly negative (untabulated). This result suggests that relative to firms with non-prosocial CEOs, firms with prosocial CEOs have a significantly lower probability of manipulating their earnings, consistent with our main results.

5.5. Restatements due to accounting fraud versus errors

In our main analyses, we rely on 8-K filings under Item 4.02 to identify non-reliance restatements, which is our proxy for financial statement irregularities. Alternatively, Audit Analytics identifies restatements that are associated with accounting fraud, irregularities, and misrepresentations (*Restate_Fraud*) as well as restatements that are due to errors in accounting and clerical applications (*Restate_Error*). We re-estimate Equation (1) using *Restate_Fraud* and *Restate_Error* and the results are reported in Table 9. In Column (1), we find that having a prosocial CEO significantly decreases the likelihood of having a restatement related to accounting fraud as identified by Audit Analytics, consistent with the results of our main analyses. We repeat our analysis using *Restate_Error* in Column (2) of Table 9. In contrast to the result on *Restate_Fraud*, CEOs' prosocial tendency is not associated with the likelihood of having a restatement due to clerical error.

These results suggest that prosocial CEOs, who are less subject to the agency problem, are less likely engage in intentional manipulation of financial statements but are as likely to make clerical errors in financial statements as non-prosocial CEOs.

5.6. Individual prosocial behavior before becoming CEOs

Because BoardEx generally does not provide data on when an individual joins or leaves a charitable organization, our treatment variable, *Prosocial*, is time invariant, and our results are

thus subject to concerns over reverse causality. For example, a CEO who is associated with any financial reporting issues (i.e., accounting irregularities and financial misrepresentations) may be less likely to be invited to join a charitable organization. To address the reverse-causality concern, we identify a subsample of individuals who were involved with charitable organizations before they were promoted to a CEO. Specifically, we use BoardEx data that was downloaded in 2013 even though our analyses thus far are based on data downloaded in 2020. Using the 2013 BoardEx dataset in conjunction with our main dataset, we redefine prosocial CEOs as individuals who (1) are included in both versions of BoardEx, (2) are involved with at least one charitable organization but are not CEOs in the 2013 version of BoardEx, and (3) become CEOs after 2013. This methodology ensures that the individuals we define as prosocial started their involvement with charitable organizations *before* becoming CEOs.[32] Using this subsample, we continue to find that prosocial CEOs are less likely to manipulate financial statements (untabulated).

5.7. Placebo test

To further rule out the alternative explanation that certain underlying changes in firms may cause the firms to change their CEOs and accounting practices simultaneously, we follow Bertrand and Schoar (2003) and perform a placebo test. Specifically, under this alternative explanation, we would not expect to find a precise overlap between the arrival of the new CEO and accounting information quality changes. In fact, one might expect that some accounting changes would precede the arrival of the new CEO, at least for some firms. In contrast, if a CEO plays an active role in changing corporate policies, changes in accounting information quality will only occur after the new CEO is hired.

Thus, for firms experiencing CEO turnovers with change of CEO prosocial tendency (from non-prosocial to prosocial, or from prosocial to non-prosocial), we assume that the new CEO

[32] We do not use this method to construct samples for our main analyses because the sample sizes are reduced by 31 percent and 16 percent for *Irregularity* and *Enforcement*, respectively.

joined the firm two years before the actual turnover date and left the firm at the time they actually joined the firm. We re-run all our turnover analyses under this assumption, but do not find significant results in any of the tests (untabulated). These results confirm that the changes we observe in accounting quality happen not before, but only after the new CEO joins the firm, suggesting that prosocial CEOs likely have a role in improving earning quality.

6. Conclusion

This study investigates whether prosocial CEOs provide higher quality accounting information to investors than non-prosocial CEOs. Following Feng et al. (2023), we measure CEOs' prosocial tendency using their involvement with charitable organizations. Because prosocial CEOs are more likely to be concerned about shareholders' welfare and thus are less subject to the agency problem, we expect prosocial CEOs to be less likely to manipulate accounting information for their own interests at the cost of shareholder welfare. Consistent with this expectation, we find that firms with prosocial CEOs are less likely to have accounting irregularities and be the subject of SEC or DOJ enforcement actions. These results hold around CEO turnovers, including turnovers driven by exogenous shocks.

We also refine our measure of CEO prosocial tendency by identifying charitable organizations that directly focus on caring for others' basic needs. We find that CEOs who are involved in these charitable organizations are even less likely to manipulate financial statements. Moreover, the association between CEO prosocial tendency and accounting information quality is more pronounced when firms are under financial distress, when CEOs' wealth is more sensitive to firm risk, and when CFOs are also prosocial. Besides the quality of mandatory financial reports, we find that prosocial CEOs are less likely to withhold bad news and that they issue more earnings forecasts. In view of the evidence above, we conclude that CEOs' prosocial tendency, a fundamental personal characteristic, significantly influences the quality of accounting information available to investors.

References

Ali, A. and Zhang, W. 2015. CEO tenure and earnings management. *Journal of Accounting and Economics*, 59: 60-79

Ali, A., Li, N., and Zhang, W. 2019. Restrictions on managers' outside employment opportunities and asymmetric disclosure of bad versus good news. *The Accounting Review*, 94(5): 1-25.

Altman, E. I. 1968. Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, 23(4): 589-609.

Amiram, D., Bozanic, Z., Cox, J. D., Dupont, Q., Karpoff, J. M., and Sloan, R. 2018. Financial reporting fraud and other forms of misconduct: a multidisciplinary review of the literature. *Review of Accounting Studies*, 23(2): 732-783.

Armstrong, C. S., Larcker, D. F., Ormazabal, G., and Taylor, D. J. 2013. The relation between equity incentives and misreporting: The role of risk-taking incentives. *Journal of Financial Economics*, 109(2): 327-350.

Barua, A., Davidson, L.F., Rama, D.V. and Thiruvadi, S. 2010. CFO gender and accruals quality. *Accounting Horizons* 24 (1): 25–39.

Batson, C. D., and Powell, A. A. 2003. Altruism and prosocial behavior.

Beasley, M. S. 1996. An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review*, 443-465.

Beneish, M. D. 1999. The detection of earnings manipulation. *Financial Analysts Journal*, 55(5), 24-36.

Beneish, M. D., Lee, C.M., & Nichols, D.C. 2013. Earnings manipulation and expected returns. *Financial Analysts Journal*, 69(2), 57-82.

Beneish, M. D., & Vorst, P. 2022. The cost of fraud prediction errors. *The Accounting Review*, 97(6), 91-121.

Benmelech, E., & Frydman, C. 2015. Military CEOs. *Journal of Financial Economics*, 117(1): 43-59.

Bereskin, F., Campbell, T., and Kedia, S. 2020. Whistle blowing, forced CEO turnover and misconduct: The role of socially minded employees and directors. *Management Science*, 66 (1): 24-42.

Bergstresser, D., and Philippon, T. 2006. CEO incentives and earnings management. *Journal of Financial Economics*, 80(3): 511-529.

Bertomeu, J., Cheynel, E., Floyd, E., and Pan, W. 2021. Using machine learning to detect misstatements. *Review of Accounting Studies*, 26: 468-519.

Bénabou, R., and Tirole, J. 2006. Incentives and prosocial behavior. *American Economic Review*, 96(5): 1652-1678.

Bertrand, M., and Schoar, A. 2003. Managing with style: The effect of managers on firm policies. *The Quarterly Journal of Economics*, 118(4): 1169-1208.

Black, E. L., Christensen, T. E., Kiosse, P. V., and Steffen, T. D. 2017. Has the regulation of non-GAAP disclosures influenced managers' use of aggressive earnings exclusions? *Journal of Accounting, Auditing and Finance*, 32(2): 209-240.

Bushee, B. J. 1998. The influence of institutional investors on myopic R&D investment behavior. *The Accounting Review*, 305-333.

Cai, Y., Kim, Y., Li, S., and Pan, C. 2019. Tone at the top: CEOs' religious beliefs and earnings management. *Journal of Banking & Finance*, 106, 195-213.

Call, A. C., Martin, G. S., Sharp, N. Y., and Wilde, J. H. 2018. Whistleblowers and outcomes of financial misrepresentation enforcement actions. *Journal of Accounting Research*, 56(1): 123-171.

Chen, Y., Chu, X., Park, J.C., and Soileau, J.S. 2022. CEO religious university affiliation and financial reporting quality. *Accounting & Finance*, 62(1), 417-468.

Cheng, Q., and Warfield, T. D. 2005. Equity incentives and earnings management. *The Accounting Review*, 80(2): 441-476.

Cheynel, E. 2013. A theory of voluntary disclosure and cost of capital. *Review of Accounting Studies*, 18(4): 987-1020.

Core, J., & Guay, W. 2002. Estimating the value of employee stock option portfolios and their sensitivities to price and volatility. *Journal of Accounting Research*, 40(3): 613-630.

Cornwall, M., Albrecht, S. L., Cunningham, P. H., and Pitcher, B. L. 1986. The dimensions of religiosity: A conceptual model with an empirical test. *Review of Religious Research*, 226-244.

Cui, F., Ma, N., and Luo, Y. J. 2016. Moral judgment modulates neural responses to the perception of other's pain: an ERP study. *Scientific Reports*, 6(1), 20851.

Cutler, J., Nitschke, J. P., Lamm, C., and Lockwood, P. L. 2021. Older adults across the globe exhibit increased prosocial behavior but also greater in-group preferences. *Nature Aging*, 1(10): 880-888.

Davidson, R.H., Dey, A and Smith, A.J. 2015. Executives' "off-the-job" behavior, corporate culture, and financial reporting risk. *Journal of Financial Economics* 117(1): 5–28.

De Franco, G., Y. Ji, and Y. Zhang. 2023. Audit partner engagement in charities and client financial reporting quality. *Auditing: A Journal of Practice & Theory*, https://doi.org/10.2308/AJPT-2022-020.

Dechow, P. M., Sloan, R. G., and Sweeney, A. P. 1996. Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*, 13(1): 1-36.

Dechow, P. M., and Dichev, I. D. 2002. The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, 77(s-1): 35-59.

Dechow, P. M., Ge, W., and Schrand, C. 2010. Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2-3): 344-401.

Dechow, P., Ge, W., Larson, C., and Sloan, R. 2011. Predicting material accounting misstatements. *Contemporary Accounting Research*, Vol. 28(1): 17-82.

Demerjian, P. R., Lev, B., and McVay, S. E. 2012. Quantifying managerial ability: A new measure and validity tests. *Management Science*, 58(7): 1229-1248.

Demerjian, P. R., Lev, B., Lewis, M. F., and McVay, S. E. 2013. Managerial ability and earnings quality. *The Accounting Review*, 88(2): 463-498.

Diamond, D. W. 1985. Optimal release of information by firms. *The Journal of Finance*, 40(4): 1071-1094.

Diamond, D. W., and Verrecchia, R. E. 1991. Disclosure, liquidity, and the cost of capital. *The Journal of Finance*, 46(4): 1325-1359.

Dikolli, S. S., Keusch, T., Mayew, W. J., and Steffen, T. D. 2020. CEO behavioral integrity, auditor responses, and firm outcomes. *The Accounting Review*, *95*(2): 61-88.

Doyle, J. T., Ge, W., and McVay, S. 2007. Accruals quality and internal control over financial reporting. *The Accounting Review*, 82(5): 1141-1170.

Du, X., Jian, W., Lai, S., Du, Y., and Pei, H. 2015. Does religion mitigate earnings management? Evidence from China. *Journal of Business Ethics*, 131, 699-749.

Dunn, E. W., Aknin, L. B., and Norton, M. I. 2008. Spending money on others promotes happiness. *Science*, 319(5870): 1687-1688.

Dyreng, S. D., Mayew, W.J., and Williams, C.D. 2012. Religious social norms and corporate financial reporting. *Journal of Business Finance & Accounting*, 39(7-8), 845-875.

Efendi, J., Srivastava, A., and Swanson, E. P. 2007. Why do corporate managers misstate financial statements? The role of option compensation and other factors. *Journal of Financial Economics*, 85(3): 667-708.

Eisenberg, N., Guthrie, I. K., Cumberland, A., Murphy, B. C., Shepard, S. A., Zhou, Q., and Carlo, G. 2002. Prosocial development in early adulthood: a longitudinal study. *Journal of Personality and Social Psychology*, 82(6): 993.

Feng, M., Ge, W., Ling, Z., and Loh, W. T. 2023. Prosocial CEOs, corporate policies, and firm value. *Review of Accounting Studies*, https://doi.org/10.1007/s11142-023-09761-0.

Feng, M., Ge, W., Luo, S., and Shevlin, T. 2011. Why do CFOs become involved in material accounting manipulations? *Journal of Accounting and Economics*, 51(1-2): 21-36.

Flynn, F. J. 2003. How much should I give and how often? The effects of generosity and frequency of favor exchange on social status and productivity. *Academy of Management Journal*, 46(5): 539-553.

Francis, J., Nanda, D., and Olsson, P. 2008. Voluntary disclosure, earnings quality, and cost of capital. *Journal of Accounting Research*, 46(1): 53-99.

Ge, W., Matsumoto, D., and Zhang, J. L. 2011. Do CFOs have style? An empirical investigation of the effect of individual CFOs on accounting practices. *Contemporary Accounting Research*, 28(4): 1141-1179.

Ge, W., Matsumoto, D., Wang, E. J., Zhang, J. L. 2020. The Price of Being Foreign: Stock Market Penalties Associated with Accounting Irregularities for US-Listed Foreign Firms. *Contemporary Accounting Research*, 37(2): 1073-1106.

Gentry, R. J., Harrison, J., Quigeley, T., and Boivie, S. 2021. A database of CEO turnover and dismissal in S&P 1500 firms, 2000–2018. *Strategic Management Journal* 42 (5): 968-991.

Geiger, M. A., and North, D. S. 2006. Does hiring a new CFO change things? An investigation of changes in discretionary accruals. *The Accounting Review* 81 (4): 781–809.

Glosten, L. R., and Milgrom, P. R. 1985. Bid, ask and transaction prices in a specialist market with heterogeneously informed traders. *Journal of Financial Economics*, 14(1): 71-100.

Griffin, J. M., Kruger, S., and Maturana, G. 2019. Personal infidelity and professional conduct in 4 settings. *Proceedings of the National Academy of Sciences*, 116(33): 16268-16273.

Hainmueller, J., and Xu, Y. 2013. Ebalance: A Stata package for entropy balancing. *Journal of Statistical Software* 54 (7): 1–18.

Hanlon, M., Yeung, K., and Zuo, L. 2022. Behavioral Economics of Accounting: A Review of Archival Research on Individual Decision Makers. *Contemporary Accounting Research*, 39 (2): 1150–1214.

Ham C., Lang, M. , Seybert, N., and Wang, S. 2017. CFO Narcissism and Financial Reporting Quality. *Journal of Accounting Research*, 55 (5): 1089–1135.

Healy, P. M., and Palepu, K. G. 2001. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1-3): 405-440.

Hennes, K. M., Leone, A. J., and Miller, B. P. 2008. The importance of distinguishing errors from irregularities in restatement research: The case of restatements and CEO/CFO turnover. *The Accounting Review*, 83(6): 1487-1519.

Hirst, D. E., Koonce, L., and Venkataraman, S. 2008. Management earnings forecasts: A review and framework. *Accounting Horizons*, 22(3): 315-338.

Jensen, M. C., and Meckling, W. H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4): 305-360.

Jiang, J., K. Petroni, and I. Wang. 2010. CFOs and CEOs: Who has the most influence on earnings management? *Journal of Financial Economics* 96 (3): 513-526.

Judd, J. S., Olsen, K. J., and Stekelberg, J. 2017. How do auditors respond to CEO narcissism? Evidence from external audit fees. *Accounting Horizons* 31(4): 33–52.

Karpoff, J. M., Lee, D. S., and Martin, G. S. 2008a. The cost to firms of cooking the books. *Journal of Financial and Quantitative Analysis*, 43(3): 581-611.

Karpoff, J. M., Lee, D. S., and Martin, G. S. 2008b. The consequences to managers for cooking the books. *Journal of Financial Economics*, 88(88): 193-215.

Karpoff, J. M., Koester, A., Lee, D. S., and Martin, G. S. 2017. Proxies and databases in financial misconduct research. *The Accounting Review*, 92(6): 129-163.

Kim, Y., Park, M. S., and Wier, B. 2012. Is earnings quality associated with corporate social responsibility? *The Accounting Review*, 87(3): 761-796.

Kinney Jr, W. R., and McDaniel, L. S. 1989. Characteristics of firms correcting previously reported quarterly earnings. *Journal of Accounting and Economics*, 11(1): 71-93.

Klein, A. 2002. Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3): 375-400.

Kothari, S. P., Shu, S., and Wysocki, P. D. 2009. Do managers withhold bad news? *Journal of Accounting Research*, 47(1): 241-276.

Larcker, D. F., Richardson, S. A., and Tuna, I. R. 2007. Corporate governance, accounting outcomes, and organizational performance. *The Accounting Review*, 82(4): 963-1008.

Liu, X. 2016. Corruption culture and corporate misconduct. *Journal of Financial Economics* 122 (2): 307-327.

Liu, C., Xu, L., Yang, H., and Zhang, W. 2023. Prosocial CEOs and the cost of debt: Evidence from syndicated loan contracts. *Journal of Corporate Finance*, 78, 102316.

McDougall, W. 1908. *An introduction to social psychology*. Methuen & Co.

McGuire, S. T., Omer, T. C., and Sharp, N. Y. 2012. The impact of religion on financial reporting irregularities. *The Accounting Review*, 87(2), 645-673.

Meier, S. 2007. A survey of economic theories and field evidence on pro-social behavior. MIT Press.

Meier, S., and Stutzer, A. 2008. Is volunteering rewarding in itself? *Economica*, 75(297): 39-59.

Mian, S. 2001. On the choice and replacement of chief financial officer. *Journal of Financial Economics* 60 (1): 143–75.

Nazrul, T., Esplin, A., Dow, K. E., and Folsom, D. M. 2022. Religiosity at the Top and Annual Report Readability. *Journal of Risk and Financial Management*, 15(10), 485.

Olsen, K. J. and Stekelberg, J. 2016. CEO narcissism and corporate tax sheltering. *The Journal of the American Taxation Association* 38(1): 1–22.

Rosner, R. 2003. Earnings Manipulation in failing firms. *Contemporary Accounting Research*, 20(2): 361-408.

Palmrose, Z. V., Richardson, V. J., and Scholz, S. 2004. Determinants of market reactions to restatement announcements. *Journal of Accounting and Economics*, 37(1): 59-89.

Penner, L. A., Dovidio, J. F., Piliavin, J. A., and Schroeder, D. A. 2005. Prosocial behavior: Multilevel perspectives. *Annual Review of Psychology*, 56, 365-392.

Roychowdhury, S., and Sletten, E. 2012. Voluntary disclosure incentives and earnings informativeness. *The Accounting Review*, 87(5): 1679-1708.

Simons, T. 2002. Behavioral integrity: The perceived alignment between managers' words and deeds as a research focus. *Organization Science*, 13(1), 18-35.

Sobel, J. 2005. Interdependent preferences and reciprocity. *Journal of Economic Literature*, 43(2): 392-436.

Yoder, K. J., and Decety, J. 2014. The good, the bad, and the just: Justice sensitivity predicts neural response during moral evaluation of actions performed by others. *Journal of Neuroscience*, 34(12), 4161-4166.

Appendix. Variable Definitions.

Variable	Definition	Database
Analysts	Natural logarithim of one plus the number of analysts that form the most recent consensus estimate on IBES.	IBES
Auditor	An indicator variable equal to one if the CEO worked as an auditor before, and zero otherwise. We identify CEOs with auditor experience if any of their prior role names contain the word "auditor".	BoardEx
BadNews	An indicator variable equal to one if the cumulative abnormal market-adjusted return from two days after the prior EA to one day after the current EA is negative, and zero otherwise.	CRSP
BiasAdj	The natural logarithm of the ratio of cumulative market-adjusted returns during a random three-day window in the quarter relative to the cumulative market-adjusted returns outside of that window in the same quarter.	CRSP
Big4Auditor	Indicator variable equal to one if the firm is audited by one of the Big 4 auditors.	Audit Analytics
BoardCharity	The percentage of a firm's board members that are involved with charities.	BoardEx
BoardIndep	Percent of number directors on the board that are independent.	BoardEx
BoardSize	Number of directors on the board.	BoardEx
BTM	Compustat CEQQ divided by market value. If missing CEQQ, then book is defined as Compustat ATQ less LTQ.	Compustat, CRSP
CEOAge	CEO's age.	BoardEx
CEOTenure	Number of years the CEO has been the CEO of the firm at the end of the fiscal year.	BoardEx
Complexity	The first principal component of total segments, foreign transactions, and restructuring charges.	Compustat
CPA	An indicator variable equal to one if the CEO has a CPA, and zero otherwise. We identify CEOs with a CPA if any of their qualifications contain "cpa", "chartered public accountant", "chartered accountant", "certified public accountant", or "certified accountant".	BoardEx
DualRole	An indicator variable equal to one if the CEO of the firm is also the chairman of the board of directors.	BoardEx

Appendix. Variable Definitions. (Cont.)

Variable	Definition	Database
Enforcement	An indicator variable equal to one if the firm-year falls within a violation period of a financial misrepresentation enforcement action taken against the firm. These enforcement actions include violations of the accounting provisions enacted under the 1977 Foreign Corrupt Practices Act (FCPA).	Call, Martin, Sharpe, and Wilde (2018)
FinDistress	An indicator variable equal to one if the firm's Z-score (Altman, 1968) is <1.81. Z-score is calculated as 1.2×(Current Assets – Current Liabilities)/Total Assets + 1.4×Retained Earnings/Total Assets + 3.3×Pretax Income/Total Assets + 0.6×Market Value of Equity/Total Liabilities + Net Sales/Total Assets. A higher Z-Score indicates lower likelihood of bankruptcy.	Compustat
FirmAge	Number of years from the first date that data on the firm is available on Compustat.	Compustat
HiTech	An indicator variable equal to one if the firm belongs to these SIC industry codes: 2833–2836, 3570–3577, 3600–3674, 7371–7379, or 8731–8734.	Compustat
ICWeakness	An indicator variable equal to one if an internal control weakness was identified in that fiscal year.	Audit Analytics
InsiderSale	An indicator equal to one for firm-quarters with net insider sales. Net insider sales are calculated as stock sales minus stock purchases.	Thomson Financial
InstOwn	Percentage of institutional ownership.	Thomson Reuters
Irregularity	An indicator variable equal to one if a firm has misstated financial statements in a given year as identified in a subsequent non-reliance restatement, and zero otherwise.	Audit Analytics
Legal	An indicator variable equal to one if the CEO has worked in the legal industry before, and zero otherwise. We identify CEOs with legal experience if any of their prior roles are in industries that contain the word "legal" or "law".	BoardEx
Leverage	Total liabilities divided by total assets at the end of fiscal year.	Compustat
Ln(NewsRatio)	100 x Abs(*EARet*)/Abs(*NonEARet*). Abs(*EARet*) is the absolute value of cumulative market-adjusted returns on trading days -1 to +1 relative to the EA date. Abs(*NonEARet*) is the absolute value of the cumulative market-adjusted non-earnings-announcement period returns, defined as 2 trading days after the prior quarter's earnings announcement date to 2 trading days before the current EA date.	CRSP

Appendix. Variable Definitions. (Cont.)

Variable	Definition	Database
Loss	An indicator variable equal to one if EPS is negative. EPS is defined as actual EPS from IBES or Compustat EPSFXQ if IBES EPS is unavailable.	Compustat, IBES
NumForecasts	Number of annual EPS management forecasts issued in the year.	IBES
OtherActivities	An indicator variable equal to one if the CEO is involved in any non-charities, and zero otherwise. Non-charities are organizations that are not defined as "Charitable Organizations" by the IRS.	Combination of IRS and BoardEx
Post	An indicator variable equal to one if the year is after a CEO turnover, and zero otherwise.	
Post404	An indicator variable equal to one if the year is after 2004, and zero otherwise.	
Prosocial	An indicator variable equal to one if the CEO has been involved with any charities, and zero otherwise. Charities are organizations defined as "Charitable Organizations" by the IRS.	Combination of IRS and BoardEx
Prosocial_Refined	An indicator variable equal to one if the CEO has involvement in charities with the IRS activity code (National Taxonomy of Exempt Entities code, NTEE code): B, C20, C27, C30, C32, C34, C35, C36, E, F, G, H, L40, L41, O, P, T, and zero otherwise. Full explanation for the NTEE codes is available at https://nccs.urban.org/publication/irs-activity-codes.	Combination of IRS and BoardEx
ProsocialCFO	An indicator variable equal to one if the CFO has been involved with any charities, and zero otherwise. Charities are organizations defined as "Charitable Organizations" by the IRS.	Combination of IRS and BoardEx
ProsocialChange	Difference between the succeeding CEO's prosocial tendency and the preceding CEO's prosocial tendency.	Combination of IRS and BoardEx
Religious	An indicator variable equal to one if the CEO has been involved with any religious organizations, and zero otherwise. Religious organizations those defined as "Religious Organizations" by the IRS.	Combination of IRS and BoardEx
ReligiousAdherence	The number of adherents in the county where the firm is headquartered, divided by the total county population. Observations in years without census data are linearly interpolated or extrapolated.	U.S. Religion Census

Appendix. Variable Definitions. (Cont.)

Variable	Definition	Database
Restate_Error	An indicator variable equal to one if a firm has misstated financial statements in a given year as identified in a subsequent restatement and Audit Analytics classifies such restatement as associated with errors in accounting and clerical applications.	Audit Analytics
Restate_Fraud	An indicator variable equal to one if a firm has misstated financial statements in a given year as identified in a subsequent restatement and Audit Analytics classifies such restatement as associated with accounting fraud, irregularities, and misrepresentations.	Audit Analytics
ROA	Income before extraordinary items divided by average total assets for the fiscal year.	Compustat
SalesGrowth	Percentage change in sales over the prior fiscal year.	Compustat
Size	Natural logarithm of total assets at the end of fiscal year.	Compustat
SizeAdjRet	Raw stock returns for the firm calculated over the 12 months prior to the end of the fiscal year, adjusted for the average return of all firms in the same size decile. Size deciles are formed at the end of each fiscal year.	CRSP, Compustat
SocialCapital	The first principal component from the standardized values of local associations, voter turnout in presidential elections, census response rates, and the number of nonprofit organizations.	Northeast Regional Center for Rural Development
TradeDays	The number of trading days in that quarter.	CRSP
Vega	Dollar change in the CEO's equity portfolio for a 0.01 change in the firm's stock return volatility.	ExecuComp
Volatility	Standard deviation of raw daily returns for the firm adjusted for CRSP value-weighted returns in the 12 months prior to the end of the fiscal year.	CRSP
Woman	An indicator variable equal to one if the CEO is a woman, and zero otherwise.	BoardEx

Figure 1. Example of CEO Turnover

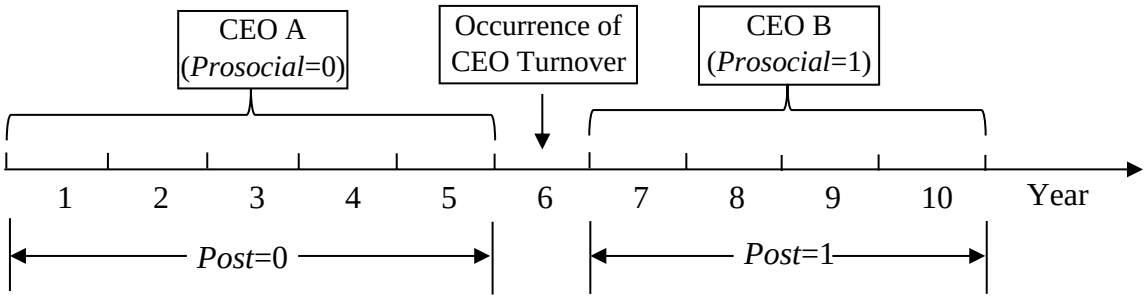

Table 1. Sample Construction.

This table presents data on our sample construction process. The initial sample of public-firm CEOs is obtained from BoardEx, then intersected with Compustat. Subsequently, only firm-years with sufficient data to calculate our control variables from 2000-2020 are retained, providing us with a final sample of firm-years of 42,502. Of these observations, 38,439 firm-years have data available to perform analyses involving non-reliance restatements from 2004 – 2020, and 29,229 firm-years have data available from Call, Martin, Sharpe, and Wilde (2018) to perform analyses involving SEC/DOJ enforcement actions from 2000-2012.

	N of observations
Number of public-firm CEOs in BoardEx with employment history between 2000 - 2020	15,530
Compustat firm-years available for BoardEx CEOs between 2000 - 2020	50,516
Less: Firm-years without sufficient data to calculate all control variables	(8,014)
Final sample of firm-years	42,502
Firm-years with Non-Reliance Restatement data available from Audit Analytics, 2004-2020	38,439
Firm-years with SEC or DOJ enforcement data available from Call, Martin, Sharpe and Wilde (2018), 2000-2012	29,229

Table 2. Summary Statistics.

This table presents summary statistics for the sample used for testing our main hypothesis. The sample period is from 2000 to 2020. The sample includes 4,592 unique CEOs and 42,502 firm-years. Panel A provides descriptive statistics for variables used in our main analyses. Panels B and C present Pearson (below the diagonal) and Spearman (above the diagonal) correlations among the variables. Correlations significant at the 10 percent level are marked in bold. Definitions of all variables are reported in the Appendix. All continuous variables are winsorized at 1 percent and 99 percent.

Panel A: Descriptive statistics

Variable	N	Mean	Std Dev	P25	Median	P75
Prosocial	42,502	0.368	0.482	0.000	0.000	1.000
Irregularity	38,439	0.076	0.265	0.000	0.000	0.000
Enforcement	29,229	0.022	0.072	0.000	0.000	0.000
OtherActivities	42,502	0.648	0.478	0.000	1.000	1.000
Size	42,502	6.328	1.964	4.934	6.314	7.642
FirmAge	42,502	21.771	15.768	10.005	17.011	29.523
BTM	42,502	0.511	0.631	0.229	0.415	0.695
Analysts	42,502	1.673	0.939	1.099	1.792	2.398
InstOwn	42,502	0.438	0.379	0.000	0.445	0.811
ROA	42,502	0.016	0.230	-0.031	0.036	0.081
Loss	42,502	0.325	0.468	0.000	0.000	1.000
SalesGrowth	42,502	0.171	0.569	-0.019	0.073	0.202
SizeAdjRet	42,502	0.028	0.477	-0.258	-0.036	0.210
Leverage	42,502	0.505	0.304	0.304	0.484	0.649
Volatility	42,502	0.132	0.079	0.078	0.112	0.162
Complexity	42,502	0.510	1.560	-0.701	0.349	1.183
AbsAccruals	42,502	0.144	0.398	0.032	0.069	0.137
Big4Auditor	42,502	0.738	0.440	0.000	1.000	1.000
ICWeakness	42,502	0.060	0.238	0.000	0.000	0.000
Post404	42,502	0.796	0.403	1.000	1.000	1.000
BoardSize	42,502	8.129	2.203	7.000	8.000	9.000
BoardIndep	42,502	0.813	0.100	0.750	0.857	0.889
DualRole	42,502	0.210	0.408	0.000	0.000	0.000
BoardCharity	42,502	0.588	0.488	0.286	0.500	0.750
SocialCapital	42,502	0.389	0.958	-0.276	0.386	1.123
ReligiousAdherence	42,502	0.516	0.171	0.402	0.502	0.612
CEOAge	42,502	55.814	8.066	50.000	56.000	61.000
CEOTenure	42,502	8.849	7.747	4.000	7.000	12.000
Religious	42,502	0.054	0.227	0.000	0.000	0.000
Ability	42,502	-0.005	0.139	-0.086	-0.034	0.033
Woman	42,502	0.032	0.176	0.000	0.000	0.000
CPA	42,502	0.067	0.249	0.000	0.000	0.000
Auditor	42,502	0.014	0.118	0.000	0.000	0.000
Legal	42,502	0.016	0.124	0.000	0.000	0.000

Table 2. Summary Statistics. (Cont.)

Panel B: Pearson (below the diagonal) and Spearman (above the diagonal) correlation matrix

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
[1] *Prosocial*		**-0.021**	**0.017**	**0.405**	**0.285**	**0.124**	**-0.054**	**0.226**	**0.067**	**0.091**	**-0.106**	-0.009	**0.038**	**0.111**	**-0.127**	0.029	**-0.080**
[2] *Irregularity*	**-0.021**		**0.155**	-0.010	**-0.043**	-0.066	**0.015**	**-0.031**	**-0.063**	-0.039	0.032	0.031	**-0.026**	0.004	**0.068**	**-0.064**	0.023
[3] *Enforcement*	**-0.017**	**0.155**		**0.016**	**0.037**	-0.012	-0.005	**0.047**	-0.002	**0.011**	**-0.011**	0.015	0.006	-0.017	**0.017**	-0.022	0.001
[4] *OtherActivities*	**0.405**	-0.010	**0.016**		**0.300**	**0.105**	**-0.038**	**0.230**	**0.062**	**0.066**	**-0.089**	-0.013	**0.035**	**0.133**	**-0.100**	0.037	**-0.075**
[5] *Size*	**0.292**	**-0.045**	**0.038**	**0.301**		**0.299**	**-0.059**	**0.721**	**0.284**	**0.285**	**-0.329**	**-0.028**	**0.113**	**0.377**	**-0.391**	**0.311**	**-0.271**
[6] *FirmAge*	**0.156**	**-0.067**	-0.004	**0.135**	**0.360**		**0.107**	**0.055**	**0.019**	**0.218**	**-0.239**	**-0.207**	**0.063**	**0.096**	**-0.316**	**0.209**	**-0.234**
[7] *BTM*	**-0.047**	0.005	-0.006	-0.035	-0.058	**0.027**		**-0.259**	**-0.091**	**-0.179**	0.041	**-0.216**	**-0.294**	**-0.256**	**0.059**	**0.002**	**-0.141**
[8] *Analysts*	**0.222**	**-0.031**	**0.047**	**0.229**	**0.727**	**0.086**	**-0.173**		**0.305**	**0.263**	**-0.233**	**0.115**	**0.087**	**0.139**	**-0.257**	**0.161**	**-0.099**
[9] *InstOwn*	**0.083**	**-0.063**	0.002	**0.077**	**0.318**	**0.038**	**-0.075**	**0.348**		**0.138**	**-0.159**	0.060	**0.101**	**0.049**	**-0.184**	**0.182**	**-0.093**
[10] *ROA*	**0.085**	-0.012	**0.011**	**0.080**	**0.346**	**0.195**	**0.026**	**0.200**	**0.168**		**-0.809**	**0.179**	**0.298**	**-0.140**	**-0.386**	**-0.043**	**-0.225**
[11] *Loss*	**-0.106**	0.032	**-0.011**	**-0.089**	**-0.330**	**-0.223**	**0.070**	**-0.226**	**-0.171**	**-0.597**		**-0.127**	**-0.271**	0.049	**0.408**	**0.006**	**0.307**
[12] *SalesGrowth*	**-0.023**	0.014	0.007	-0.021	**-0.090**	**-0.162**	**-0.079**	0.007	**-0.014**	**-0.133**	**0.062**		**0.197**	**-0.081**	**0.018**	**-0.174**	**0.110**
[13] *SizeAdjRet*	**0.018**	-0.007	0.010	**0.021**	**0.038**	0.006	**-0.200**	**0.031**	**0.064**	**0.185**	**-0.188**	**0.087**		**-0.018**	**-0.078**	**-0.017**	**-0.078**
[14] *Leverage*	**0.077**	0.002	-0.018	**0.098**	**0.237**	**0.083**	**-0.306**	**0.081**	**0.021**	**-0.170**	**0.087**	**-0.030**	**-0.031**		**-0.027**	**0.166**	**-0.071**
[15] *Volatility*	**-0.106**	**0.060**	0.018	**-0.080**	**-0.348**	**-0.262**	**0.031**	**-0.236**	**-0.199**	**-0.347**	**0.386**	**0.114**	**0.125**	0.061		**-0.144**	**0.260**
[16] *Complexity*	**0.012**	**-0.070**	**-0.030**	0.018	**0.303**	**0.240**	-0.019	**0.165**	**0.190**	**0.056**	**-0.021**	**-0.113**	**-0.037**	**0.104**	**-0.143**		**-0.105**
[17] *AbsAccruals*	**-0.045**	**0.005**	0.008	**-0.043**	**-0.167**	**-0.150**	**-0.069**	**-0.062**	**-0.058**	**-0.261**	**0.170**	**0.250**	**0.049**	**-0.042**	**0.201**	**-0.083**	
[18] *Big4Auditor*	**0.165**	0.003	**0.022**	**0.178**	**0.476**	**0.060**	**-0.105**	**0.441**	**0.257**	**0.143**	**-0.146**	**-0.037**	**0.036**	**0.109**	**-0.148**	**0.117**	**-0.061**
[19] *ICWeakness*	**-0.047**	**0.215**	0.002	**-0.040**	**-0.098**	**-0.047**	0.006	**-0.101**	**-0.040**	**-0.091**	**0.104**	0.017	**-0.058**	**0.039**	**0.059**	**0.021**	0.023
[20] *BoardSize*	**0.256**	**-0.042**	**0.025**	**0.253**	**0.632**	**0.352**	**-0.084**	**0.457**	**0.140**	**0.165**	**-0.199**	**-0.067**	**0.015**	**0.195**	**-0.248**	**0.179**	**-0.110**
[21] *BoardIndep*	**0.090**	**-0.068**	**-0.039**	**0.102**	**0.292**	**0.178**	**-0.055**	**0.254**	**0.191**	0.024	**-0.015**	**-0.048**	-0.010	**0.145**	**-0.104**	**0.224**	**-0.041**
[22] *DualRole*	**0.130**	**0.021**	**0.019**	**0.110**	**0.110**	0.040	**-0.004**	**0.080**	**-0.002**	0.053	**-0.071**	**0.005**	**0.022**	0.021	**-0.040**	**-0.052**	**-0.017**
[23] *BoardCharity*	**0.476**	**-0.017**	**0.045**	**0.320**	**0.525**	**0.299**	**-0.089**	**0.405**	**0.067**	**0.114**	**-0.162**	**-0.050**	**0.022**	**0.118**	**-0.173**	**0.065**	**-0.066**
[24] *LocalAssoc*	**-0.069**	**-0.137**	**-0.095**	**-0.055**	**0.025**	**0.116**	**-0.030**	**0.027**	**0.093**	**-0.044**	**0.035**	-0.036	**-0.026**	**0.037**	**-0.070**	**0.295**	**0.001**
[25] *ReligiousAdherence*	**0.075**	**0.066**	**0.060**	**0.058**	**-0.063**	**-0.032**	**0.054**	-0.082	**-0.099**	**0.066**	**-0.061**	0.011	**0.028**	**-0.053**	**0.080**	**-0.294**	**-0.001**
[26] *CEOAge*	**0.041**	-0.060	-0.024	**0.015**	**0.054**	**0.212**	**0.060**	**-0.069**	-0.017	**0.080**	**-0.102**	**-0.076**	-0.008	**-0.002**	**-0.117**	0.034	**-0.083**
[26] *CEOTenure*	**0.059**	**0.004**	**0.005**	**0.048**	**-0.065**	**0.105**	**0.062**	**-0.088**	**-0.038**	**0.120**	**-0.129**	**-0.064**	**0.030**	**-0.109**	**-0.072**	**-0.073**	**-0.081**
[27] *Religious*	**0.243**	-0.008	-0.006	**0.159**	**0.098**	**0.056**	0.006	**0.065**	**0.033**	**0.045**	**-0.055**	-0.018	**0.012**	**0.027**	**-0.042**	-0.008	-0.022
[28] *Ability*	**0.040**	**-0.010**	**0.026**	**0.038**	**0.095**	**0.011**	**-0.114**	**0.185**	0.004	**0.123**	**-0.114**	**0.089**	**0.059**	**-0.041**	**-0.042**	**-0.033**	**0.036**
[29] *Woman*	**0.084**	-0.008	-0.007	**0.050**	**0.009**	**0.015**	-0.006	**0.015**	-0.010	-0.005	0.001	-0.009	**-0.010**	0.000	0.001	0.006	0.008
[30] *CPA*	-0.013	-0.007	0.005	0.024	0.019	**0.010**	0.004	**0.002**	0.016	0.012	-0.016	**-0.017**	-0.008	**0.041**	**-0.023**	-0.015	**-0.019**
[31] *Auditor*	-0.004	-0.001	-0.005	**0.028**	**0.038**	**0.030**	-0.007	**0.014**	0.021	0.010	-0.014	**-0.012**	-0.006	**0.023**	**-0.029**	**0.020**	**-0.017**
[32] *Legal*	**0.033**	-0.007	-0.006	**0.028**	**0.004**	**0.006**	-0.017	-0.013	-0.011	-0.002	0.008	0.003	0.004	0.000	-0.009	0.002	0.002

Table 2. Summary Statistics. (Cont.)

Panel C: Pearson (below the diagonal) and Spearman (above the diagonal) correlation matrix (cont.)

	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	[32]	[33]
[1] *Prosocial*	**0.165**	**-0.047**	**0.244**	**0.122**	**0.130**	**0.514**	**-0.066**	**0.073**	**0.042**	**0.075**	**0.243**	0.010	**0.084**	-0.013	-0.004	**0.033**
[2] *Irregularity*	0.003	**0.215**	**-0.045**	**-0.074**	**0.021**	**-0.016**	**-0.136**	**0.071**	**-0.059**	**0.004**	-0.008	-0.001	-0.008	-0.007	-0.001	-0.007
[3] *Enforcement*	**0.022**	0.002	**0.011**	**-0.037**	**0.019**	**0.038**	**-0.093**	**0.054**	-0.024	**0.004**	-0.006	0.016	-0.007	0.005	-0.005	-0.006
[4] *OtherActivities*	**0.178**	**-0.040**	**0.250**	**0.129**	**0.110**	**0.356**	**-0.051**	**0.054**	**0.018**	**0.066**	**0.159**	**-0.004**	**0.050**	0.024	**0.028**	**0.028**
[5] *Size*	**0.479**	**-0.097**	**0.618**	**0.372**	**0.105**	**0.500**	**0.035**	-0.076	**0.066**	**-0.028**	**0.101**	**-0.042**	**0.003**	0.021	**0.041**	**0.005**
[6] *FirmAge*	**0.023**	**-0.046**	**0.292**	**0.199**	**0.019**	**0.208**	0.133	**-0.033**	**0.242**	**0.191**	**0.046**	**0.021**	0.004	**0.014**	**0.032**	**0.007**
[7] *BTM*	**-0.114**	**0.022**	**-0.086**	-0.068	**-0.007**	**-0.114**	**-0.051**	**0.090**	**0.087**	0.065	0.005	**-0.170**	-0.010	**0.011**	0.000	-0.009
[8] *Analysts*	**0.430**	**-0.104**	**0.455**	**0.288**	**0.085**	**0.406**	**0.025**	**-0.099**	**-0.049**	**-0.028**	**0.066**	**0.117**	**0.014**	**0.003**	0.014	-0.014
[9] *InstOwn*	**0.225**	**-0.033**	**0.128**	**0.180**	**-0.009**	**0.053**	**0.102**	**-0.112**	-0.004	**-0.011**	**0.028**	**-0.041**	-0.011	0.014	0.020	-0.012
[10] *ROA*	**0.127**	**-0.115**	**0.163**	**0.027**	**0.067**	**0.154**	**-0.037**	**0.069**	**0.089**	**0.155**	**0.046**	**0.228**	0.000	0.006	0.006	-0.004
[11] *Loss*	**-0.146**	**0.104**	**-0.197**	-0.057	**-0.071**	**-0.162**	**0.031**	**-0.061**	**-0.100**	**-0.155**	**-0.055**	**-0.125**	0.001	-0.016	-0.014	0.008
[12] *SalesGrowth*	**0.012**	**-0.005**	**-0.048**	**-0.077**	**0.026**	**-0.040**	**-0.081**	**0.021**	**-0.084**	**0.002**	-0.011	**0.125**	**-0.019**	**-0.020**	**-0.008**	-0.003
[13] *SizeAdjRet*	**0.072**	**-0.070**	**0.071**	0.027	**0.026**	**0.061**	**-0.001**	**0.007**	0.013	**0.057**	**0.024**	**0.062**	-0.010	-0.002	0.001	0.005
[14] *Leverage*	**0.153**	**0.024**	**0.279**	**0.228**	0.040	**0.178**	**0.044**	**-0.050**	**0.013**	**-0.104**	**0.047**	**-0.129**	-0.004	**0.053**	**0.023**	-0.007
[15] *Volatility*	**-0.164**	**0.067**	**-0.283**	**-0.156**	**-0.050**	**-0.210**	**-0.086**	**0.069**	**-0.120**	**-0.080**	**-0.046**	**-0.022**	-0.002	**-0.023**	**-0.035**	-0.012
[16] *Complexity*	**0.135**	**0.026**	**0.200**	**0.265**	**-0.046**	**0.076**	**0.288**	**-0.291**	0.017	**-0.093**	-0.007	**-0.058**	**0.007**	-0.011	**0.020**	0.001
[17] *AbsAccruals*	**-0.107**	**0.049**	**-0.187**	**-0.089**	**-0.035**	**-0.115**	**-0.023**	**-0.025**	**-0.107**	-0.091	**-0.043**	**0.071**	0.008	**-0.025**	**-0.027**	0.003
[18] *Big4Auditor*		**-0.092**	**0.351**	**0.255**	0.031	**0.304**	-0.020	-0.013	**-0.047**	-0.033	**0.050**	**-0.020**	**0.009**	0.008	0.008	0.003
[19] *ICWeakness*	**-0.092**		**-0.082**	-0.033	-0.013	**-0.082**	**0.010**	**-0.031**	**-0.027**	**-0.048**	-0.021	**-0.042**	0.003	**-0.005**	-0.004	0.006
[20] *BoardSize*	**0.334**	**-0.085**		**0.466**	0.054	**0.422**	0.024	**-0.011**	**0.044**	**-0.082**	**0.088**	**-0.031**	**0.019**	0.007	**0.035**	0.004
[21] *BoardIndep*	**0.219**	-0.023	**0.315**		**-0.106**	**0.252**	**0.157**	**-0.110**	-0.038	**-0.155**	0.016	**-0.052**	**0.040**	**0.034**	**0.042**	**0.003**
[22] *DualRole*	0.031	-0.013	**0.072**	**-0.118**		**0.108**	**-0.101**	**0.070**	**0.184**	**0.252**	**0.051**	**0.023**	**-0.054**	**-0.037**	**-0.022**	-0.018
[23] *BoardCharity*	**0.257**	**-0.077**	**0.439**	**0.179**	**0.102**		**-0.068**	**0.069**	**0.016**	-0.002	**0.151**	0.024	**0.040**	0.015	**0.030**	**0.029**
[24] *LocalAssoc*	-0.022	**0.012**	**-0.004**	**0.165**	**-0.105**	**-0.082**		**-0.366**	0.065	**-0.041**	**-0.029**	**-0.035**	**0.063**	**0.010**	**0.023**	0.012
[25] *ReligiousAdherence*	-0.013	**-0.033**	**0.013**	**-0.123**	**0.073**	**0.071**	**-0.328**		-0.045	**0.062**	**0.018**	**0.024**	**-0.023**	0.019	**-0.017**	0.013
[26] *CEOAge*	**-0.055**	-0.023	**0.041**	**-0.082**	**0.194**	**0.017**	0.063	-0.046		**0.359**	**0.043**	**-0.038**	**-0.045**	**-0.050**	**-0.031**	**-0.040**
[26] *CEOTenure*	-0.067	**-0.032**	**-0.105**	**-0.218**	**0.247**	**-0.025**	**-0.036**	**0.050**	**0.436**		**0.037**	**0.039**	**-0.052**	**-0.049**	**-0.047**	**-0.028**
[27] *Religious*	**0.050**	-0.021	**0.097**	0.008	**0.051**	**0.133**	**-0.030**	**0.017**	**0.043**	**0.032**		-0.001	**0.014**	**0.014**	-0.015	0.025
[28] *Ability*	0.038	**-0.045**	**0.052**	**-0.002**	**0.022**	**0.132**	**-0.013**	-0.003	**-0.030**	0.014	0.001		0.003	**-0.030**	-0.016	**-0.007**
[29] *Woman*	**0.009**	0.003	**0.019**	**0.037**	**-0.054**	**0.029**	**0.064**	**-0.025**	**-0.047**	**-0.055**	**0.014**	0.001		-0.006	-0.001	**0.018**
[30] *CPA*	0.008	**-0.005**	0.003	**0.031**	**-0.037**	0.009	**0.009**	**0.011**	**-0.053**	**-0.058**	**0.014**	**-0.022**	-0.006		**0.289**	**-0.012**
[31] *Auditor*	0.008	-0.004	0.033	**0.039**	**-0.022**	**0.030**	**0.023**	**-0.017**	**-0.029**	**-0.046**	-0.015	-0.015	-0.001	**0.289**		**-0.015**
[32] *Legal*	0.003	0.006	**0.008**	**0.000**	-0.018	**0.026**	0.010	0.014	**-0.041**	**-0.034**	0.025	**-0.010**	**0.018**	**-0.012**	**-0.015**	

Table 3. Prosocial CEOs and Accounting Manipulations.

This table presents results from linear probability model regressions of accounting manipulations on whether the CEO is prosocial. In Column (1), the sample includes 38,406 firm-year observations for the period of 2004-2020, excluding firm-years with SEC or DOJ enforcement from the control group. The dependent variable, *Irregularity*, equals one if a firm has misstated financial statements in that year as identified in a subsequent non-reliance restatement, and zero otherwise. In Column (2), the sample includes 28,589 firm-year observations for the period of 2000-2012, excluding firm-years with non-reliance restatements from the control group. The dependent variable, *Enforcement*, equals one if the firm-year falls within a violation period of a financial misrepresentation enforcement action taken against the firm enacted under the 1977 Foreign Corrupt Practices Act (FCPA). *Prosocial* is an indicator variable that equals one if the CEO of the firm in year *t* is involved in charitable organizations, and zero otherwise. The definitions of all other independent variables are reported in the Appendix. Standard errors are clustered at the firm level, and *t*-statistics are reported in the brackets. Industry and year fixed effects are included. Significance at the 10 percent, 5 percent, and 1 percent level is denoted *, **, and ***, respectively.

	Irregularity	*Enforcement*
	(1)	(2)
Prosocial	-0.012	-0.002
	[-2.33]**	[-1.99]**
OtherActivities	-0.004	-0.002
	[-0.78]	[-1.72]*
Size	0.006	0.003
	[2.59]***	[6.55]***
FirmAge	-0.000	-0.000
	[-0.61]	[-1.24]
BTM	0.004	-0.000
	[1.26]	[-0.27]
Analysts	0.005	0.002
	[1.39]	[2.77]***
InstOwn	-0.016	-0.002
	[-2.34]**	[-1.84]*
ROA	0.014	-0.005
	[1.50]	[-1.77]*
Loss	0.010	0.001
	[2.22]**	[0.73]
SalesGrowth	0.003	0.000
	[0.95]	[0.13]
SizeAdjRet	-0.004	-0.002
	[-1.36]	[-1.37]
Leverage	0.011	-0.001
	[1.51]	[-1.09]
Volatility	0.117	0.023
	[4.12]***	[2.87]***
Complexity	0.003	0.000
	[2.59]***	[0.73]

AbsAccruals	-0.004	0.001
	[-1.14]	[0.84]
Big4Auditor	0.002	-0.003
	[0.45]	[-2.52]**
ICWeakness	0.245	0.003
	[23.35]***	[2.00]**
Post404	-0.013	-0.001
	[-1.64]	[-0.48]
BoardSize	-0.003	-0.001
	[-1.77]*	[-1.75]*
BoardIndep	-0.060	-0.026
	[-2.16]**	[-4.09]***
DualRole	0.002	0.000
	[0.35]	[0.02]
BoardCharity	-0.011	-0.002
	[-1.58]	[-1.89]*
SocialCapital	-0.004	-0.002
	[-1.12]	[-2.83]***
ReligiousAdherence	-0.031	0.002
	[-1.65]*	[0.56]
CEOAge	-0.001	-0.000
	[-2.92]***	[-1.20]
CEOTenure	0.001	0.000
	[1.82]*	[1.99]**
Religious	0.003	0.001
	[0.24]	[0.48]
Ability	-0.004	0.005
	[-0.27]	[1.33]
Woman	0.001	-0.002
	[0.06]	[-1.19]
CPA	-0.005	0.004
	[-0.64]	[1.78]*
Auditor	0.020	0.001
	[1.26]	[0.27]
Legal	-0.011	-0.005
	[-0.75]	[-2.11]**
Intercept	0.152	0.014
	[5.00]***	[2.12]**
Industry Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Clustered Errors	Yes	Yes
N of Observations	38,406	28,589
Adj. R^2	10.40%	5.00%

Table 4. Changes in Accounting Manipulations around CEO Turnovers.

This table presents regression results using firm-years around CEO turnovers. In Column (1), the sample includes 21,722 firm-years around CEO turnovers for the period of 2004-2020. The dependent variable, *Irregularity*, equals one if a firm has misstated financial statements in that year as identified in a subsequent non-reliance restatement, and zero otherwise. In Column (2), the sample includes 16,554 firm-year observations around CEO turnovers for the period of 2000-2012. The dependent variable, *Enforcement*, equals one if the firm-year falls within a violation period of a financial misrepresentation enforcement action taken against the firm enacted under the 1977 Foreign Corrupt Practices Act (FCPA). Columns (3) and (4) restrict the CEO turnovers to those due to the preceding CEOs' death or health issues. *ProsocialChange* equals the succeeding CEO's prosocial tendency minus the preceding CEO's prosocial tendency. *Post* equals one if the year is after a CEO turnover, and zero otherwise. The definitions of all other independent variables are reported in the Appendix. Standard errors are clustered at the firm level, and *t*-statistics are reported in the brackets. Industry and year fixed effects are included. Significance at the 10 percent, 5 percent, and 1 percent level is denoted *, **, and ***, respectively.

	All turnovers		Turnovers due to death or illness	
	Irregularity	*Enforcement*	*Irregularity*	*Enforcement*
	(1)	(2)	(3)	(4)
ProsocialChange	0.011	0.010	0.008	0.223
	[0.65]	[1.44]	[0.72]	[2.13]**
Post	-0.023	-0.007	-0.032	0.015
	[-1.13]	[-0.95]	[-1.61]	[0.33]
ProsocialChange x Post	-0.048	-0.023	-0.022	-0.275
	[-2.99]***	[-2.44]**	[-3.56]***	[-3.29]***
OtherActivities	-0.016	-0.012	0.002	-0.014
	[-1.13]	[-2.00]**	[0.14]	[-0.31]
Size	0.022	0.015	-0.026	-0.002
	[3.03]***	[3.78]***	[-2.22]**	[-0.11]
FirmAge	0.001	0.000	-0.001	-0.001
	[1.35]	[0.19]	[-1.49]	[-0.67]
BTM	0.004	-0.001	0.016	0.022
	[0.46]	[-0.26]	[2.10]**	[0.60]
Analysts	0.018	0.009	-0.007	-0.010
	[1.71]*	[1.78]*	[-0.61]	[-0.35]
InstOwn	-0.099	-0.017	-0.023	-0.151
	[-4.52]***	[-1.69]*	[-1.42]	[-2.44]**
ROA	0.026	-0.029	0.042	-0.195
	[0.94]	[-2.06]**	[2.23]**	[-2.08]**
Loss	0.034	0.005	0.007	-0.026
	[2.67]***	[1.03]	[0.86]	[-0.87]
SalesGrowth	0.009	0.000	0.008	-0.011
	[1.22]	[0.18]	[1.35]	[-0.59]
SizeAdjRet	-0.003	-0.003	-0.008	0.022
	[-0.40]	[-0.86]	[-1.79]*	[0.95]
Leverage	0.054	-0.014	0.085	0.033
	[2.11]**	[-1.29]	[2.62]***	[0.34]

Volatility	0.262	0.037	0.104	0.052
	[3.58]***	[1.04]	[2.02]**	[0.30]
Complexity	0.009	-0.002	0.002	-0.005
	[2.10]**	[-1.31]	[0.18]	[-0.42]
AbsAccruals	0.007	0.008	0.013	0.001
	[0.52]	[1.42]	[1.89]*	[0.07]
Big4Auditor	-0.015	-0.012	0.000	0.032
	[-0.88]	[-1.57]	[0.03]	[0.78]
ICWeakness	0.424	0.008	0.081	0.077
	[23.86]***	[1.29]	[6.13]***	[1.00]
Post404	-0.032	-0.003	0.011	0.031
	[-1.62]	[-0.43]	[1.37]	[0.30]
BoardSize	-0.010	-0.002	0.003	0.012
	[-2.30]**	[-0.95]	[0.88]	[1.25]
BoardIndep	-0.040	-0.100	-0.093	-0.109
	[-0.54]	[-2.71]***	[-2.34]**	[-0.61]
DualRole	0.006	0.007	0.002	-0.061
	[0.36]	[1.00]	[0.18]	[-1.05]
BoardCharity	-0.004	-0.000	0.018	0.046
	[-0.18]	[-0.04]	[1.03]	[1.24]
SocialCapital	0.001	-0.002	-0.011	-0.020
	[0.06]	[-0.53]	[-0.96]	[-0.67]
ReligiousAdherence	-0.017	0.018	-0.035	0.057
	[-0.30]	[0.81]	[-0.60]	[0.29]
CEOAge	-0.000	-0.000	-0.000	-0.002
	[-0.05]	[-0.54]	[-0.70]	[-0.76]
CEOTenure	-0.001	0.000	0.001	0.007
	[-0.71]	[0.55]	[1.40]	[2.73]***
Religious	0.021	0.015	-0.042	0.023
	[0.59]	[1.05]	[-0.89]	[0.42]
Ability	0.003	0.014	-0.068	-0.057
	[0.06]	[0.57]	[-1.53]	[-0.55]
Woman	0.005	0.007	-0.008	-0.037
	[0.15]	[0.70]	[-0.15]	[-0.54]
CPA	-0.023	0.013	0.010	0.070
	[-0.91]	[1.03]	[0.44]	[1.12]
Auditor	0.102	0.016	-0.044	0.013
	[1.57]	[0.69]	[-1.03]	[0.11]
Legal	-0.034	-0.000	0.059	0.107
	[-0.67]	[-0.02]	[1.85]*	[1.12]
Intercept	0.132	0.018	0.133	0.026
	[1.55]	[0.44]	[1.35]	[0.97]
Industry Fixed Effects	Yes	Yes	Yes	Yes

Year Fixed Effects	Yes	Yes	Yes	Yes
Clustered Errors	Yes	Yes	Yes	Yes
N of Observations	21,722	16,554	922	751
Adj. R^2	13.00%	16.40%	22.20%	15.50%

Table 5. Refined Prosocial Measure.

This table presents regression results using a refined classification of charitable organizations. *Prosocial_Refined* is an indicator variable equal to one for CEOs involved with charities that are more directly related to increasing the welfare of others, and zero otherwise. In Column (1), the dependent variable is *Irregularity*, which equals one if a firm has misstated financial statements in that year as identified in a subsequent non-reliance restatement, and zero otherwise. In Columns (2), the dependent variable is *Enforcement*, which equals one if the firm-year falls within a violation period of a financial misrepresentation enforcement action taken against the firm enacted under the 1977 Foreign Corrupt Practices Act (FCPA). Standard errors are clustered at the firm level, and t-statistics are reported in the brackets. Year and industry fixed effects are included. Significance at the 10 percent, 5 percent, and 1 percent level is denoted *, **, and ***, respectively.

	Irregularity	*Enforcement*
	(1)	(2)
Prosocial	-0.003	-0.001
	[-1.76]*	[-1.67]*
Prosocial_Refined	-0.013	-0.004
	[-4.78]***	[-2.55]**
Controls	Yes	Yes
Industry Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Clustered Errors	Yes	Yes
N of Observations	38,406	28,589
Adj. R^2	10.40%	3.50%

Table 6. Cross-Sectional Tests: Financial Distress, Compensation Incentive, and Prosocial CFOs.

This table presents results from cross-sectional tests involving financial distress, CEOs' portfolio vega, and prosocial CFOs. In Column (1), (3), and (5), the dependent variable is *Irregularity*, which equals one if a firm has misstated financial statements in that year as identified in a subsequent non-reliance restatement, and zero otherwise. In Columns (2), (4), and (6), the dependent variable is *Enforcement*, which equals one if the firm-year falls within a violation period of a financial misrepresentation enforcement action taken against the firm enacted under the 1977 Foreign Corrupt Practices Act (FCPA). *FinDistress* equals one if the firm's Z-score is lower than 1.81, and zero otherwise. *Vega* is the dollar change in CEOs' equity portfolio for a 0.01 change in their firm's stock return volatility. *ProsocialCFO* equals one if the CFO in that firm-year is involved in charitable organizations, and zero otherwise. Standard errors are clustered at the firm level, and *t*-statistics are reported in the brackets. Year and industry fixed effects are included. Significance at the 10 percent, 5 percent, and 1 percent level is denoted *, **, and ***, respectively.

	Irregularity	*Enforcement*	*Irregularity*	*Enforcement*	*Irregularity*	*Enforcement*
	(1)	(2)	(3)	(4)	(5)	(6)
Prosocial	-0.005	-0.005	-0.003	-0.005	-0.007	-0.002
	[-2.05]**	[-2.00]**	[-1.75]*	[-2.76]***	[-1.35]	[-1.41]
FinDistress	0.014	-0.001				
	[2.56]**	[-0.73]				
Prosocial x FinDistress	-0.011	-0.003				
	[-2.10]**	[-2.46]**				
Vega			-0.001	0.001		
			[-0.63]	[0.81]		
Prosocial x Vega			-0.003	0.001		
			[-1.68]*	[1.27]		
ProsocialCFO					-0.006	-0.001
					[-0.71]	[-0.28]
Prosocial x ProsocialCFO					-0.031	-0.003
					[-2.84]***	[-1.90]*
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Clustered Errors	Yes	Yes	Yes	Yes	Yes	Yes
N of Observations	38,406	28,589	22,538	21,230	38,406	28,589
Adj. R^2	10.40%	3.50%	14.90%	5.10%	10.50%	3.50%

Table 7. Prosocial CEOs and Voluntary Disclosure.

This table presents results from OLS regressions of prosocial CEOs on voluntary disclosure choices. In Panel A Column (1), the sample includes 158,324 firm-quarter observations for the period of 2000-2020. The dependent variable in Column (1) is *Ln(NewsRatio)*, which measures the informativeness of quarterly earnings announcements. *BadNews* is an indicator variable that is equal to one if the cumulative abnormal market-adjusted return from 2 days after the prior EA to 1 day after the current EA is negative, and zero otherwise. In Column (2), the sample includes 39,728 firm-year observations for the period of 2002-2020. The dependent variable in Column (2) is *NumForecasts*, which is the number of annual EPS management forecasts issued in the year. Panel B presents results for analyses of voluntary disclosure using firm-quarters or firm-years around CEO turnovers. *ProsocialChange* equals the succeeding CEO's prosocial tendency minus the preceding CEO's prosocial tendency. *Post* equals one if the quarter or year is after a CEO turnover, and zero otherwise. The definitions of all other independent variables are reported in the Appendix. Standard errors are clustered at the firm level, and *t*-statistics are reported in the brackets. Industry and year fixed effects are included. Significance at the 10 percent, 5 percent, and 1 percent level is denoted *, **, and ***, respectively.

Panel A: Main analysis

	Ln(NewsRatio)	*NumForecasts*
	(1)	(2)
Prosocial	0.001	0.083
	[0.06]	[3.37]***
BadNews	0.131	
	[12.17]***	
Prosocial × BadNews	-0.031	
	[-2.51]**	
OtherActivities	0.027	-0.006
	[1.55]	[-0.14]
Size	-0.003	0.015
	[-0.44]	[0.59]
FirmAge	0.537	0.010
	[7.70]***	[4.60]***
BTM	-0.157	-0.011
	[-13.26]***	[-0.47]
Analysts	-0.038	0.482
	[-2.72]***	[13.65]***
InstOwn	0.041	0.739
	[2.16]**	[9.21]***
ROA	-0.049	0.022
	[-2.27]**	[0.32]
Loss	-0.006	-0.469
	[-0.20]	[-14.19]***
SalesGrowth	0.000	-0.031
	[0.38]	[-2.19]**
SizeAdjRet	0.014	-0.031
	[3.47]***	[-1.74]*
Leverage	-0.121	0.203
	[-2.36]**	[2.58]***

Volatility	-0.011	-1.450
	[-1.12]	[-8.12]***
Complexity	0.109	0.046
	[11.55]***	[2.86]***
AbsAccruals	0.046	-0.007
	[2.78]***	[-0.43]
Big4Auditor	0.037	0.019
	[2.53]**	[0.35]
ICWeakness	-0.002	0.010
	[-0.09]	[0.24]
Post404	-0.009	0.210
	[-0.43]	[4.64]***
BoardSize	0.002	0.036
	[0.63]	[2.52]**
BoardIndep	0.030	0.702
	[0.93]	[3.19]***
DualRole	-0.021	0.142
	[-1.40]	[2.37]**
BoardCharity	-0.007	0.165
	[-0.51]	[2.01]**
SocialCapital	0.019	0.108
	[2.52]**	[2.96]***
ReligiousAdherence	-0.057	0.451
	[-1.35]	[2.31]**
CEOAge	-0.003	-0.002
	[-3.54]***	[-0.59]
CEOTenure	0.003	0.003
	[4.24]***	[0.82]
Religious	0.050	0.022
	[2.06]**	[0.17]
Ability	0.025	-0.542
	[0.66]	[-3.30]***
Woman	-0.033	-0.148
	[-1.03]	[-1.32]
CPA	-0.007	0.019
	[-0.28]	[0.23]
Auditor	-0.065	0.192
	[-1.33]	[1.06]
Legal	-0.010	-0.111
	[-0.21]	[-0.73]
InsiderSale	0.045	
	[3.46]***	
BiasAdj	0.102	

	[27.96]***	
TradeDays	-0.007	
	[-21.91]***	
HiTech	-0.032	
	[-1.63]	
Intercept	4.397	-1.454
	[67.59]***	[-5.57]***
Industry Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Clustered Errors	Yes	Yes
N of Observations	158,324	39,728
Adj. R^2	4.20%	26.20%

Table 7. Prosocial CEOs and Voluntary Disclosure. (Cont.)

Panel B: Analysis involving CEO turnovers

	All turnovers		Turnovers due to death or illness	
	Ln(NewsRatio)	*NumForecasts*	*Ln(NewsRatio)*	*NumForecasts*
	(1)	(2)	(3)	(4)
ProsocialChange	0.044	-0.217	0.771	0.874
	[1.86]*	[-2.19]**	[1.65]*	[0.95]
Post	-0.039	0.028	0.327	-0.910
	[-0.96]	[0.29]	[1.35]	[-0.87]
ProsocialChange x Post	0.020	0.244	-0.315	0.800
	[0.38]	[2.00]**	[-0.86]	[2.33]**
BadNews	0.107		0.689	
	[4.09]***		[2.19]**	
BadNews x Post	-0.008		-0.218	
	[-0.18]		[-0.61]	
ProsocialChange x BadNews	0.037		0.049	
	[1.07]		[1.44]	
ProsocialChange x Post x BadNews	-0.069		-0.073	
	[-2.10]**		[-2.28]**	
OtherActivities	0.013	-0.015	0.039	-0.864
	[0.23]	[-0.18]	[0.48]	[-1.65]
Size	0.013	-0.026	0.034	-0.262
	[1.05]	[-0.61]	[0.86]	[-0.68]
FirmAge	-0.000	-0.002	-0.003	0.077
	[-0.27]	[-0.54]	[-1.50]	[3.68]***
BTM	-0.014	-0.014	-0.057	1.280
	[-0.71]	[-0.32]	[-0.93]	[1.86]*
Analysts	0.122	0.416	0.054	1.116
	[6.34]***	[6.86]***	[0.85]	[1.68]
InstOwn	0.015	0.369	-0.014	1.199

	[0.43]	[2.57]**	[-0.14]	[1.46]
ROA	0.585	0.185	0.001	1.350
	[4.46]***	[1.52]	[0.00]	[0.72]
Loss	-0.144	-0.396	-0.067	-0.269
	[-6.32]***	[-6.16]***	[-0.74]	[-0.63]
SalesGrowth	-0.016	-0.017	0.232	0.327
	[-0.64]	[-0.76]	[1.43]	[0.62]
SizeAdjRet	0.026	0.011	0.175	0.427
	[0.73]	[0.34]	[1.22]	[0.96]
Leverage	-0.102	0.391	-0.056	2.679
	[-2.19]**	[2.80]***	[-0.50]	[1.48]
Volatility	-0.033	-1.862	-0.506	-4.068
	[-0.34]	[-5.59]***	[-1.31]	[-1.02]
Complexity	0.005	0.049	0.006	0.128
	[0.66]	[1.75]*	[0.24]	[1.20]
AbsAccruals	-0.063	-0.051	-0.037	0.468
	[-1.00]	[-1.45]	[-0.16]	[0.37]
Big4Auditor	0.024	0.276	0.019	-0.506
	[0.87]	[3.02]***	[0.18]	[-1.56]
ICWeakness	-0.018	-0.074	0.289	-0.533
	[-0.45]	[-0.99]	[2.02]**	[-0.47]
Post404	0.009	0.202	-0.006	1.283
	[0.25]	[2.79]***	[-0.03]	[1.79]*
BoardSize	-0.004	0.032	-0.018	0.140
	[-0.67]	[1.30]	[-0.87]	[1.48]
BoardIndep	-0.022	1.128	-0.034	1.400
	[-0.24]	[3.00]***	[-0.23]	[0.66]
DualRole	-0.022	0.097	-0.029	-1.059
	[-0.81]	[0.94]	[-0.24]	[-2.22]**
BoardCharity	-0.042	-0.004	-0.031	0.936
	[-1.33]	[-0.04]	[-0.43]	[1.86]*

SocialCapital	0.015	0.100	-0.016	-0.703
	[0.96]	[1.56]	[-0.37]	[-1.60]
ReligiousAdherence	-0.015	0.958	0.041	2.643
	[-0.17]	[2.90]***	[0.14]	[2.15]**
CEOAge	-0.003	0.003	-0.006	0.075
	[-1.81]*	[0.46]	[-1.19]	[1.53]
CEOTenure	0.006	-0.000	0.014	-0.055
	[3.55]***	[-0.04]	[1.81]*	[-1.00]
Religious	0.174	0.057	0.071	1.877
	[2.87]***	[0.22]	[0.56]	[1.88]*
Ability	0.026	-0.853	0.146	-0.066
	[0.38]	[-3.26]***	[0.57]	[-0.04]
Woman	-0.043	-0.285	0.155	-2.117
	[-0.84]	[-1.67]*	[1.00]	[-2.37]**
CPA	-0.014	0.032	0.056	-1.952
	[-0.28]	[0.20]	[0.47]	[-2.02]*
Auditor	-0.217	-0.162	-0.308	1.273
	[-2.88]***	[-0.62]	[-1.43]	[0.94]
Legal	-0.105	-0.333	-0.103	-0.083
	[-1.07]	[-1.42]	[-0.51]	[-0.62]
InsiderSale	0.039		-0.188	
	[1.49]		[-1.25]	
BiasAdj	0.112		0.074	
	[16.09]***		[2.40]**	
TradeDays	-0.007		-0.002	
	[-11.17]***		[-0.56]	
HiTech	-0.027		0.009	
	[-0.71]		[0.08]	
Intercept	4.454	-1.681	3.685	-1.019
	[31.49]***	[-3.59]***	[6.56]***	[-0.63]
Industry Fixed Effects	Yes	Yes	Yes	Yes

Year Fixed Effects	Yes	Yes	Yes	Yes
Clustered Errors	Yes	Yes	Yes	Yes
N of Observations	97,841	26,788	2,868	1,115
Adj. R^2	4.70%	23.00%	4.70%	26.20%

Table 8. Cross-Sectional Tests and the Extent of Prosocial Tendency.

This table presents results from cross-sectional tests involving financial distress and CEOs' portfolio vega, comparing subsamples with high-prosocial and low-prosocial CEOs. In Columns (1) and (3), the sample includes firm-years with low-prosocial CEOs and non-prosocial CEOs. In Columns (2) and (4), the sample includes firm-years with high-prosocial CEOs and non-prosocial CEOs. Low-prosocial CEOs are defined as CEOs who are only involved in charitable organizations that are less related to increasing the welfare of others. High-prosocial CEOs are defined as CEOs who have involvement with charitable organizations that are more related to increasing the welfare of others, such as those involved with education, medical research, youth development, and human services. In Columns (1) and (2), the dependent variable is *Irregularity*, which equals one if a firm has misstated financial statements in that year as identified in a subsequent non-reliance restatement, and zero otherwise. In Columns (3) and (4), the dependent variable is *Enforcement*, which equals one if the firm-year falls within a violation period of a financial misrepresentation enforcement action taken against the firm enacted under the 1977 Foreign Corrupt Practices Act (FCPA). The bottom rows tabulate the difference between the coefficients on *Prosocial* × *FinDistress and Prosocial* × *Vega* in Panels A and B, respectively. In Panel A, *FinDistress* equals one if the firm's Z-score is lower than 1.81, and zero otherwise. In Panel B, *Vega* is the dollar change in CEOs' equity portfolio for a 0.01 change in their firm's stock return volatility. Standard errors are clustered at the firm level, and *t*-statistics are reported in the brackets. Year and industry fixed effects are included. Significance at the 10 percent, 5 percent, and 1 percent level is denoted *, **, and ***, respectively.

Panel A: Cross-sectional tests on financial distress

	Irregularity		*Enforcement*	
	Low-prosocial vs. Non-prosocial	High-prosocial vs. Non-prosocial	Low-prosocial vs. Non-prosocial	High-prosocial vs. Non-prosocial
	(1)	(2)	(3)	(4)
Prosocial	-0.008	-0.014	-0.002	-0.002
	[-1.51]	[-2.68]***	[-1.97]**	[-2.04]**
FinDistress	0.012	0.014	-0.001	-0.001
	[2.66]***	[2.77]***	[-0.02]	[-0.74]
Prosocial × *FinDistress*	-0.008	-0.016	-0.002	-0.004
	[-1.81]*	[-2.31]**	[-1.74]*	[-4.03]***
Controls	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Clustered Errors	Yes	Yes	Yes	Yes
N of Observations	27,881	34,107	21,079	25,521
Adj. R^2	10.40%	10.40%	3.50%	3.50%
Difference between coefficients on *Prosocial* × *FinDistress*	-0.008 [χ2= 2.76*]		-0.002 [χ2=6.62**]	

Table 8. Cross-Sectional Tests using the Extent of Prosocial Tendency. (Cont.)

Panel B: Cross-sectional tests on portfolio vega

	Irregularity		*Enforcement*	
	Low-prosocial vs. Non-prosocial	High-prosocial vs. Non-prosocial	Low-prosocial vs. Non-prosocial	High-prosocial vs. Non-prosocial
	(1)	(2)	(3)	(4)
Prosocial	-0.003	-0.003	-0.007	-0.001
	[-2.29]**	[-2.57]**	[-2.85]***	[-2.39]**
Vega	-0.008	-0.001	0.001	-0.002
	[-0.57]	[-0.62]	[0.83]	[-1.01]
Prosocial × *Vega*	-0.003	-0.005	0.001	-0.003
	[-0.91]	[-2.11]**	[1.58]	[-1.77]*
Controls	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Clustered Errors	Yes	Yes	Yes	Yes
N of Observations	16,297	19,989	15,351	18,829
Adj. R^2	14.90%	10.40%	5.10%	3.50%
Difference between coefficients on *Prosocial* × *Vega*	-0.002 [$\chi2$=2.69]		-0.004 [$\chi2$=6.69***]	

Table 9. Restatements Due to Accounting Fraud Versus Errors

This table presents results from linear probability model regressions of different types of financial restatements on whether the CEO is prosocial. The sample includes 38,406 firm-year observations for the period of 2004-2020. In Column (1), the dependent variable is *Restate_Fraud*, which equals one if a firm has misstated financial statements in a given year identified by Audit Analytics as associated with accounting fraud, irregularities, and misrepresentations. In Column (2), the dependent variable is *Restate_Error*, which equals one if a firm has misstated financial statements in a given year identified by Audit Analytics as associated with errors in accounting and clerical applications. The definitions of all independent variables are reported in the Appendix. Standard errors are clustered at the firm level, and *t*-statistics are reported in the brackets. Industry and year fixed effects are included. Significance at the 10 percent, 5 percent, and 1 percent level is denoted *, **, and ***, respectively.

	Restate_Fraud	*Restate_Error*
	(1)	(2)
Prosocial	-0.003	-0.001
	[-3.83]***	[-0.79]
OtherActivities	0.001	0.000
	[1.57]	[0.54]
Size	0.001	-0.000
	[3.24]***	[-0.55]
FirmAge	0.000	-0.000
	[1.44]	[-1.04]
BTM	-0.000	-0.000
	[-0.47]	[-0.12]
Analysts	-0.001	-0.000
	[-1.43]	[-0.41]
InstOwn	-0.001	0.000
	[-1.05]	[0.03]
ROA	0.004	0.003
	[3.89]***	[2.14]**
Loss	0.002	0.003
	[1.87]*	[2.66]***
SalesGrowth	-0.001	-0.001
	[-3.32]***	[-1.41]
SizeAdjRet	-0.001	0.002
	[-0.98]	[2.43]**
Leverage	0.003	-0.001
	[2.11]**	[-0.55]
Volatility	-0.005	-0.003
	[-1.16]	[-0.49]
Complexity	0.000	0.000
	[1.27]	[0.25]
AbsAccruals	-0.000	0.000
	[-1.22]	[0.18]

Big4Auditor	0.000	0.001
	[0.28]	[1.12]
ICWeakness	0.016	0.013
	[4.55]***	[4.82]***
Post404	0.001	0.001
	[0.75]	[0.36]
BoardSize	0.000	0.000
	[1.37]	[0.70]
BoardIndep	-0.012	0.008
	[-2.36]**	[1.55]
DualRole	-0.001	0.001
	[-0.87]	[0.93]
BoardCharity	-0.002	-0.000
	[-1.96]*	[-0.50]
SocialCapital	-0.001	-0.001
	[-1.64]	[-1.27]
ReligiousAdherence	0.005	-0.004
	[2.74]**	[-0.97]
CEOAge	-0.000	-0.000
	[-3.15]***	[-0.03]
CEOTenure	-0.000	0.000
	[-0.58]	[0.85]
Religious	-0.003	-0.002
	[-2.81]**	[-2.36]**
Ability	-0.008	-0.000
	[-6.43]***	[-0.11]
Woman	-0.001	-0.002
	[-0.41]	[-1.64]
CPA	0.000	-0.001
	[0.02]	[-1.00]
Auditor	-0.001	-0.002
	[-0.54]	[-1.87]*
Legal	-0.004	-0.003
	[-9.01]***	[-3.91]***
Intercept	0.007	-0.003
	[1.66]	[-0.41]
Industry Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Clustered Errors	Yes	Yes
N of Observations	38,406	38,406
Adj. R^2	0.80%	1.10%