

# Accounting Errors in Nonprofit Organizations

Jeffrey J. Burks

**SYNOPSIS:** This study examines the accounting errors committed by public charities as revealed by searching for disclosures of their corrections in auditor reports, financial statements, and footnotes. A sample of 5,511 audited financial statements, predominantly from the years 2006 to 2010, was obtained from GuideStar, a data provider for nonprofits. Public charities report errors at a rate that is 60 percent higher than that of publicly traded corporations, and almost twice as high as that of similar-sized corporations. The errors are commonly errors of omission (i.e., failing to recognize items). The error rate has a strong positive association with internal control deficiencies and a strong negative association with Big 4 and second-tier auditors. Regressions are unable to detect a significant association between the error rate and organization size, type, or portion of the budget devoted to administrative activities. The error corrections often have low visibility in the financial reports issued by public charities; although they are reported in the footnotes of the audited financial statements, they often are not mentioned in auditor reports and in IRS Form 990s. The study improves our understanding of the accounting challenges faced by nonprofits, and may enhance nonprofit financial reporting by helping nonprofit managers and auditors understand the common circumstances and types of errors, and thus what activities to monitor more closely. The study also contributes to the academic literature by comparing the errors of nonprofits to those of corporations, by examining the outcomes of audits conducted by large as well as small auditors, and by advancing our understanding of discrepancies between audited and unaudited financial reports.

**Keywords:** nonprofit; public charity; financial reporting; accounting errors; restatements; auditing.

**Data Availability:** Data are available from sources identified in the paper.

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## INTRODUCTION

Nonprofit organizations produce financial statements to help managers, directors, and donors assess performance and resource adequacy. Accounting errors have a fundamental bearing on the quality of financial statements because they represent violations of the intended mapping, as specified by accounting standards, between the financial statements and an organization's underlying activities. Such violations can mislead users about the organization's performance, efficiency, resources, and obligations.

The primary objective of audits is to prevent violations of this mapping by providing reasonable assurance that the financial statements are free of material errors (AU-C Section 200 ¶04–06, American Institute of Certified Public Accountants [AICPA] 2012). Despite operating on tight budgets and facing pressure to limit overhead and administrative spending (Hager, Pollak, Wing, and Rooney 2004a, 2004b), many nonprofits voluntarily incur the costs associated with having their financial statements audited. Other nonprofits are required by state or federal law to undergo audits.

This study investigates the prevalence and characteristics of the accounting errors committed by nonprofit organizations.<sup>1</sup> The results are important because of the fundamental link between accounting errors and financial reporting quality, and the scarce resources that nonprofit organizations invest in audits to reduce errors. Additionally, the nonprofit setting provides a unique opportunity to examine auditors and clients that are much smaller than those typically examined in accounting research. Questions arise about the quality of these audits, given that the financial statements are generally scrutinized less by the public, media, and regulators than are public company financial statements, and the audits themselves are not subject to inspection by the Public Company Accounting Oversight Board (PCAOB). Finally, study of nonprofit errors is important because there is evidence that nonprofit stakeholders react negatively to accounting errors and their antecedents. Declines in donations are associated with disclosure of internal control weaknesses in financial reporting (Petrovits, Shakespeare, and Shih 2011) and with accounting errors that have egregious characteristics (Burks 2014). Burks (2014) also finds that CFO turnover increases following accounting errors, consistent with negative reactions by boards of directors.

This study focuses on the accounting errors of 501(c)(3) public charities, excluding educational and healthcare organizations, by using a sample of audited financial statements obtained from GuideStar, a nonprofit data provider.<sup>2</sup> The accounting errors are identified by searching for disclosure of their corrections in auditor reports, financial statements, and footnotes. I examine the frequency, characteristics, and circumstances of the errors, and how prominently the error corrections are disclosed in audited financial statements and Internal Revenue Service (IRS) Form 990s.

About 6 percent of nonprofit financial statements disclose errors, which is approximately 60 percent higher than the rate of restatements by publicly traded corporations over the same period (2006 to 2010, as obtained from the Audit Analytics restatement database). The nonprofit error rate is almost twice as high as the rate among similar-sized corporations. Revenue and accounts receivable errors are most common, but the errors are dispersed across financial statement elements. The errors are split evenly between overstatements and understatements of net assets, unlike corporate restatements that tend to involve overstatements of net assets. The magnitude of nonprofit errors as a percentage of revenue is similar to that of corporations. Thus, differences in materiality assessments across nonprofits and corporations do not appear to explain the high rate of nonprofit errors.

<sup>1</sup> In this study, the term “accounting error” encompasses both unintentional and intentional errors, consistent with the lack of distinction in the Financial Accounting Standards Board’s definition of accounting error (FASB ASC 250-10-20).

<sup>2</sup> Public charities tend to raise funds from the general public and provide charitable services, as opposed to foundations that typically have a small number of donors and whose primary activity is grant-making (Sansing and Yetman 2006). Although this study focuses on public charities, it uses the term “nonprofit” interchangeably.

The rate of errors varies considerably by auditor type, even after controlling for client size. Big 4 and second-tier auditors have significantly lower error rates, which could reflect their superior auditing or client screening, or could reflect higher quality nonprofit organizations self-selecting Big 4 or second-tier auditors. From a donor perspective, the bottom line is that organizations with Big 4 or second-tier auditors are less likely to issue errant financial statements. Errors are also strongly associated with internal control deficiencies identified in audits of nonprofits that receive significant federal funding. Overall, however, the regression that tests the conditions associated with errors has low explanatory power, and is unable to detect a significant association between the error rate and organization size, type, or portion of the budget spent on administrative activities. However, of note, prediction models for public company restatements also have low explanatory power (Jones, Krishnan, and Melendrez 2008). Improvement of these models may be an avenue for future research.

Motivated by concerns about the visibility of corporate restatements (Turner and Weirich 2006; Files, Swanson, and Tse 2009), I find that nonprofit error corrections often have low visibility. The auditor reports that accompany the financial statements usually fail to mention corrections of errors that are well above traditional rule-of-thumb thresholds for materiality. Additionally, nonprofits often fail to disclose error corrections in IRS 990s. Follow-up analysis indicates that failure to disclose became much more common after the format of the IRS 990 changed in tax year 2008, when disclosure of the error moved from the front page to a more obscure schedule located several pages into the form. However, I find no evidence that firms are trying to hide particularly severe errors from users of the form. The increased failure to disclose errors on the new form could reflect a misunderstanding of reporting requirements or could reflect attempts to use the obscurity of the new schedule to hide errors regardless of their severity.

Overall, the study improves our understanding of the accounting challenges faced by nonprofits. The findings may aid in improving nonprofit financial reporting by helping nonprofit managers and auditors understand the common circumstances and types of errors, and thus what activities to monitor more closely. The findings may also be useful to donors and regulators, particularly the findings indicating almost a third of the errors in the audited financial statements were not reported in the IRS form 990. Donors' and regulators' oversight of public charities is important, given that public charities' 2010 revenues totaled \$1.51 trillion (Blackwood, Roeger, and Pettijohn 2012), which is 10.5 percent of U.S. Gross Domestic Product (GDP). Outsiders can access IRS 990s free of charge through the IRS's web-based partners, but audited financial statements are less accessible. The study makes donors aware that they may not learn about accounting errors simply by reviewing the more accessible IRS 990.

Finally, the study contributes to the academic literature. The findings complement similar studies of the nature and circumstances of corporate accounting errors (e.g., Hennes, Leone, and Miller 2008; Plumlee and Yohn 2010). A striking contrast between the two settings is the even split between net asset overstatements and understatements for nonprofits compared to the imbalance of overstatements for corporations. The finding that IRS 990s often omit disclosures of corrections of errors complements Krishnan, M. Yetman, and R. Yetman (2006), which finds that nonprofits often fail to report fundraising expenses in their (unaudited) IRS 990s even though such expenses are reported in the audited financial statements. Unlike Krishnan et al. (2006), I do not find direct evidence that the discrepancies between the two forms are driven by management incentives; rather, my findings suggest that the discrepancies are driven by changes in reporting format.

## SAMPLE AND ERROR IDENTIFICATION

The GuideStar website posts the IRS 990s for each tax-exempt nonprofit registered with the IRS. Additionally, about 13 percent of public charities with revenues greater than \$1 million voluntarily post their audited financial statements on GuideStar, which GuideStar allows at no

charge to the organization.<sup>3</sup> I supervised a team of research assistants that collected a sample of these audited financial statements. I restricted the search to charities that have at least \$1 million in annual revenue, because these relatively large charities are more likely to have audited financial statements. As evidence that the donor community expects audits at this revenue level, at the time that the sample was collected, organizations with at least \$1 million in revenue were not eligible for GuideStar's "Exchange Seal" unless they underwent a financial statement audit.<sup>4</sup> Public charities involved in education or healthcare were excluded from the search because accounting errors may be less consequential for these types of organizations. Other nonprofit accounting studies often exclude or separately analyze these types of organizations because it is thought that donors give to these organizations out of loyalty or personal contact and pay less attention to financial statements (Gordon and Khumawala 1999; Krishnan et al. 2006; M. Yetman and R. Yetman 2013).

The sample was selected to reflect the population of public charities registered with the IRS in terms of size and type of charity. GuideStar categorizes nonprofits into six major types (besides education and healthcare): human services, public/societal benefit, arts/culture/humanities, religion, environment/animals, and international. At the time of data collection, GuideStar categorized nonprofits with greater than \$1 million in annual revenue into four revenue ranges: \$1 million to \$2.5 million, \$2.5 million to \$5 million, \$5 million to \$10 million, and greater than \$10 million. The research team collected the audited financial statements of 2,948 public charities such that the proportion in each combination of type and revenue range is similar to that of the GuideStar universe.<sup>5</sup> The final sample consists of 5,511 audited financial statements (i.e., 5,511 firm-years) collected for 2,948 public charities. As shown in Table 1, the sample is predominantly from the years 2006 to 2010, although the oldest year is 2000 because the research team collected whatever financial statements were available on GuideStar.

In each set of audited financial statements, the research team searched for disclosures about corrections of accounting errors in the auditor report, financial statements, and footnotes.<sup>6</sup> Accounting standards require preparers to correct material errors by restating prior periods (FASB ASC 250-10). Immaterial errors need not be corrected or can be corrected through catch-up adjustments to the current period. The distinction between restatements and catch-up adjustments is moot for many nonprofits because they frequently present only the current year on the face of their financial statements. If an organization presents only the current year, then the only item that needs to be corrected is the beginning net assets value reported at the bottom of the Statement of Activities. Correcting this single value fits the definition of a restatement because the organization is restating the only financial statement item that needs to be restated. But the correction also fits the definition of a catch-up adjustment because the only change to the financial statements is a

<sup>3</sup> I compute this percentage based on a random sample of 500 public charities with revenues greater than \$1 million, stratified by the organization types and revenue ranges as discussed in this section. The percentage is similar to the percentage of nonprofit organizations that responded to requests for financial statements from Krishnan et al. (2006) (12 percent). On average, each organization provided the authors two years of financial statements, which is similar to the 1.9 years per organization that I obtain from GuideStar.

<sup>4</sup> The "Exchange Seal" is a certification given by GuideStar to organizations that meet various criteria for reporting transparency. Even if an organization does not receive the Exchange Seal, the organization nonetheless is allowed to post its audited financial statements on GuideStar.

<sup>5</sup> We were able to achieve proportions similar to the GuideStar universe except in the \$1 million to \$2.5 million revenue category within Human Services. Because there was a shortage of organizations with audited financial statements in this revenue category (22 percent of the sample versus 30 percent of the GuideStar universe), we oversampled from the higher revenue categories within Human Services to keep the percentage of Human Services firms close to that of the GuideStar universe.

<sup>6</sup> We did not use IRS 990s as another source to identify errors because 990s are not audited, and error corrections sometimes have ambiguous descriptions or are not presented at all (as discussed in more detail in "Error Reporting Practices" section).

**TABLE 1**  
**Error Frequency by Year**

	Public Charities			NYSE/AMEX/NASDAQ Firms Percent Restatements (Annual Restatements Only)
	Number of Errors	Number of Firm-Years	Percent Errors	
pre-2006	8	129	6.2%	
2006	21	330	6.4%	5.7%
2007	59	900	6.6%	3.6%
2008	105	1,714	6.1%	3.2%
2009	116	1,851	6.3%	3.2%
2010	27	587	4.6%	3.2%
Total	336	5,511	6.1%	3.8%

The year is the calendar year-end of the financial statements in which the error is disclosed. There are 26,480 firm-years for the NYSE/AMEX/NASDAQ firms from 2006 to 2010, obtained from Compustat. I obtain the corporate restatements from Audit Analytics. I exclude restatements that affect only the first three quarters within a fiscal year. Audit Analytics sometimes includes more than one entry for the same restatement if the firm makes multiple announcements about the restatement (Scholz 2008). To eliminate duplicates, I exclude restatement entries for the same firm that are announced within the subsequent six months.

cumulative adjustment to net assets.<sup>7</sup> As discussed later, nonprofit errors have magnitudes similar to those of corporate restatements, suggesting that the nonprofit sample consists largely of errors that would have been corrected via restatement in the corporate realm. I encountered only two cases when the nonprofit stated that the errors were immaterial, and excluded them from the sample.

## CHARACTERISTICS AND CIRCUMSTANCES OF ERRORS

### Error Frequency

Table 1 presents the annual rate of accounting errors from 2006 to 2010. The year is the calendar year-end of the financial statements in which the error correction is disclosed. The sample size of audited financial statements peaks in 2008 and 2009 because the data were collected in 2011, and GuideStar generally posts no more than three years of audited financial statements for a given nonprofit. The rate of accounting errors varies little across years and averages 6.1 percent over the entire sample. This estimated error rate could be downwardly biased because nonprofits with low-quality financial reporting may not choose to post audited financial statements on GuideStar, or nonprofits that previously posted financial statements could choose not to post financial statements that contain disclosure of errors. However, the following analysis suggests that this latter source of bias is not large. When examining the organizations that have exactly two consecutive years of financial statements posted on GuideStar, I find that the error rate among the “first year” financial statements is higher than the error rate among “second year” financial statements. One would

<sup>7</sup> Nonprofits use terminology inconsistently in describing the error corrections. The organizations often counterintuitively used the word “adjustment,” which would seem to connote a catch-up adjustment, to describe the correction of errors that had material magnitudes (greater than 1 or 2 percent of revenue). Sometimes nonprofits describe corrections as “adjustments” even when the organization presents more than one year on the face of the financial statements and has clearly *restated* the prior years. Conversely, nonprofits sometimes use the word “restatement” when correcting small errors and presenting only the current year on the face of the financial statements. Thus, I do not attempt to use the footnote terminology to separate material restatements from immaterial catch-up adjustments.

expect to observe the opposite if organizations commonly use their discretion to conceal accounting errors from GuideStar. If an organization has never before posted financial statements on GuideStar and has an error correction in the current year's financial statements, then the organization could simply wait another year to begin posting financial statements on GuideStar without raising notice from outsiders. Such behavior would create a *lower* error rate among "first year" financial statements compared to "second year" financial statements.<sup>8</sup>

Table 1 also lists the restatement rate among corporations listed on the NYSE, AMEX, and NASDAQ, computed using Audit Analytics and Compustat. The nonprofit error rate of 6.1 percent is significantly higher than the corporate restatement rate of 3.8 percent (Chi-squared statistic p-value < 0.01).<sup>9</sup> The corporations tend to be much larger in size than the nonprofits. To make the organization sizes more comparable, in an untabulated test I limit both samples to organizations that have between \$5 million and \$15 million of annual revenue. The resulting nonprofit (corporate) sample has 1,172 (930) firm-years and mean revenue of \$8.1 million (\$10.2 million). The difference in error rate between the samples is again statistically different: 6.0 percent for nonprofits and 3.2 percent for corporations (Chi-squared statistic p-value < 0.01). Later analysis of error magnitudes indicates that conservative thresholds for judging materiality are unlikely to explain the higher error rate among nonprofits.

### Errors by Financial Statement Item

Panel A of Table 2 presents the frequency of errors by financial statement item. The total number of errors (465) exceeds the number of firm-years with errors (336) because some firm-years involve more than one error. The main takeaway is that the errors are dispersed across financial statement elements, with no dominant element. Revenue and accounts receivable errors are most common, representing 26 percent of the errors. The next most common group of errors involves misclassifying net assets across the unrestricted, temporarily restricted, and permanently restricted categories, representing 20 percent of the errors. Within each restriction category, overstatements and understatements are about equally likely (result is untabulated). The next most common group of errors involves expenses and related prepaids or payables, representing 18 percent of the errors. This category includes a variety of expenses such as rent, insurance, depreciation, payroll taxes, vacation/sick wages payable, and the cost of donated goods or services. Based on casual observation while hand-coding the observations, the organizations often did not disclose the particular expense and seldom disclosed whether it was classified as program, management and general, or fundraising.<sup>10</sup> No particular expenses stood out as common.

<sup>8</sup> Because GuideStar's standard practice is to post an organization's three most recent financial statements, limiting this analysis to organizations that have exactly two consecutive years of financial statements provides more assurance that the first year presented is truly the first year that the organization posted financial statements. There are 564 sample organizations with exactly two consecutive years of financial statements posted on GuideStar. The error rate of the "first year" ("second year") financial statements is 7.6 (5.1 percent).

<sup>9</sup> Audit Analytics sometimes includes more than one entry for the same restatement if the firm makes multiple announcements about the restatement (Scholz 2008). To eliminate duplicates, I exclude restatement entries for the same firm that are announced within the subsequent six months. I also exclude corporate restatements that affect only the first three quarters within a fiscal year, because the nonprofit sample consists exclusively of errors that affect annual financial statements (nonprofits typically do not issue quarterly financial statements). Without this exclusion of quarterly restatements, for a given year, a corporation would have four chances to misstate its financial statements whereas a nonprofit has only one chance. Including quarterly restatements results in a restatement rate of 5.4 percent for corporations, which is still significantly lower than the nonprofit rate of 6.1 percent (p-value < 0.05). Including quarterly restatements, but scaling by the number of firm-quarters, results in a corporate restatement rate of 1.3 percent.

<sup>10</sup> When hand-coding, I did not reliably code the exact type of expense, nor whether it was classified as program, management and general, or fundraising. I kept track of some of the more common expenses, such as depreciation and vacation/sick wages payable, but did not keep an exhaustive and methodical list because after coding several cases it became clear that vague disclosures would preclude meaningful analysis.

**TABLE 2**  
**Error Characteristics**

**Panel A: Frequency of Errors by Financial Statement Item**

<u>Item</u>	<u>Number of Errors</u>	<u>Percent</u>
Revenue/accounts receivable	121	26.0%
Revenue	66	14.2%
Accounts receivable	55	11.8%
Expenses (and related prepaids and payables)	83	17.8%
Current assets, excluding accounts receivable and prepaids	17	3.7%
Noncurrent assets	69	14.8%
Loans/interest receivable	5	1.1%
Other financial assets	35	7.5%
Property, plant, and equipment	29	6.2%
Long-term liabilities	41	8.8%
Debt	8	1.7%
Non-debt liabilities	33	7.1%
Net asset restrictions	94	20.2%
Entity issues	17	3.7%
Other or unspecified	23	4.9%
<b>Total</b>	<b>465</b>	<b>100.0%</b>

This panel presents the frequency of errors by financial statement item. Some of the 336 firm-years involve more than one error, amounting to 465 total errors.

**Panel B: Prevalence of Recognition Errors**

	<u>Number of Errors</u>	<u>Percent of Total Errors</u>	<u>Percent of Category</u>
Recognition errors			
Failed to recognize	116	35.0%	61.4%
Failed to derecognize	12	3.6%	6.3%
Should not have recognized	19	5.7%	10.1%
Late revenue recognition	20	6.0%	10.6%
Early revenue recognition	22	6.6%	11.6%
<b>Total recognition errors</b>	<b>189</b>	<b>57.1%</b>	<b>100.0%</b>
Unclear			
Line item is understated	73	22.1%	51.4%
Line item is overstated	69	20.8%	48.6%
<b>Total unclear</b>	<b>142</b>	<b>42.9%</b>	<b>100.0%</b>
<b>Total errors</b>	<b>331</b>	<b>100.0%</b>	

The panel presents how frequently errors involve recognition. If it is not clear whether an error involves recognition, then the error is classified as "Unclear." The panel excludes errors involving net asset restrictions, entity issues, and "other or unspecified" errors because they do not lend themselves to these classifications.

*(continued on next page)*

TABLE 2 (continued)

## Panel C: Error Magnitudes

	Nonprofit Sample	Corporate Sample (Burks 2011)	Difference
Proportion where net assets overstated	41.7	73.7	-32.1***
Proportion where net assets understated	37.5	15.1	22.4***
Proportion where net assets unaffected	20.8	11.1	9.7***
Mean signed magnitude as % of revenue	-2.2**	7.7***	-9.9***
Median signed magnitude as % of revenue	0.0	1.0***	-1.0***
Mean unsigned magnitude as % of revenue	7.6	9.3	-1.7
Median unsigned magnitude as % of revenue	1.9	1.4	0.5
Percent greater than 1 percent of revenue	60.7	58.5	2.2

\*\*\*, \*\* Denote statistically significantly different from zero at the 1 percent and 5 percent confidence levels (two-tailed), respectively.

This panel presents the magnitude and direction of the errors in the nonprofit sample and in a subsample of restatements from Burks (2011) spanning 1997 to 2005. To obtain the subsample from Burks (2011), I begin with the 1,473 restatements from Burks (2011, Table 1) and then retain the restatements that affect a year-end reporting period and that have total sales available on Compustat for the fiscal year of the financial statements that contain the restatement, leaving 1,032 restatements. The revenue scalar for the nonprofit errors is obtained from the Core Data files of the NCCS database or is hand-collected if missing. The revenue scalar for the corporate restatements is obtained from Compustat (item SALE). The magnitudes of the corporate restatements in Burks (2011) are after-tax amounts because they were computed by comparing the original and restated balances of retained earnings or owners' equity. To make the corporate error magnitudes comparable to the nonprofit error magnitudes (which are not affected by income taxes), I gross up the corporate magnitudes by assuming a 35 percent income tax rate if the corporation reported positive earnings in the fiscal year prior to announcing the restatement. To reduce the influence of outliers, the scaled errors are winsorized at the 1st and 99th percentiles in each sample.

About 15 percent of the errors involve noncurrent assets. Most of these errors involve financial assets like loan receivables or beneficial interests in trusts, with most of the remainder involving property, plant, and equipment. There were no errors involving intangible assets. About 9 percent of the errors involve long-term liabilities. Only about 20 percent of the long-term liability errors involve outside borrowings. The rest of the long-term liability errors involve obligations such as pensions, amounts owed to affiliate organizations, grants payable, or split interest agreements. The remaining errors involve entity issues such as consolidations and minority interest (4 percent), current assets other than accounts receivable and prepaids (4 percent), and other miscellaneous or unspecified errors (5 percent).

## Recognition Errors

Panel B of Table 2 assesses the frequency of recognition errors. Recognition errors involve recognizing items that should not be recognized, or failing to recognize items that should be recognized. They stand in contrast to measurement errors, which involve assigning incorrect amounts to recognized items. Recognition errors are often easy to identify from the organization's description of them. For example, an organization may disclose that it prematurely recognized revenue or failed to accrue a liability and expense for vacation wages. In contrast, measurement errors are difficult to identify because they are often described as "overstatements" or "understatements," which could also describe recognition errors. For example, an "overstatement" could mean either positive measurement error or premature recognition. Thus, I classify the errors into two groups, one for errors that have descriptions indicating recognition errors



(“Recognition Errors”) and the other for errors that have ambiguous descriptions (“Unclear”). From this analysis, I exclude errors involving net asset restrictions, entity issues, and “other or unspecified” errors because they do not lend themselves to recognition versus measurement classification.

Panel B of Table 2 indicates that 57.1 percent of the errors have descriptions that indicate they are recognition errors. Recognition errors are thus considerably more common than measurement errors because many errors in the “Unclear” category likely involve recognition as well. I subdivide the recognition errors into five groups: (1) failures to recognize assets, liabilities, or expenses, (2) failures to derecognize assets or liabilities (e.g., failures to reduce receivables or payables when collected or paid), (3) recognizing assets, liabilities, or expenses when they should not have been recognized, (4) late revenue recognition, and (5) early revenue recognition.<sup>11</sup> About 61 percent of the recognition errors involve failing to recognize an asset, liability, or expense. Another 11 percent involve late revenue recognition. Combining these two groups, 72 percent of recognition errors are errors of omission rather than commission. In other words, in these cases the organizations failed to recognize items that should have been recognized, rather than recognized items that should not have been recognized. In untabulated analysis, I examine the recognition errors by financial statement item. For most financial statement items, the most common recognition error is the failure to recognize, i.e., an error of omission. In contrast, revenue errors are about evenly split between errors of omission (46 percent) and commission (54 percent).

### Magnitude of Errors

Panel C of Table 2 provides information about the magnitude and direction of the errors. Nonprofits have roughly equal proportions of net asset overstatements and understatements (42 percent and 38 percent). The remaining 20 percent of nonprofit errors have no effect on net assets because they involve reclassifications. For comparison, Panel C presents the same proportions for the corporate restatements, based on the [Burks \(2011\)](#) sample spanning 1997 to 2005.<sup>12</sup> In contrast, the proportions of overstatements and understatements of net assets are much more imbalanced for corporations, with 74 percent of corporate restatements involving overstatements and only 15 percent involving understatements. In untabulated analysis, I find that this imbalance among corporate restatements continues to exist in the years that are common in the nonprofit sample (2006–2010). Using a supplement to the Audit Analytics database that provides information about misstatement magnitudes, I find that from 2006 to 2010, 55 percent (16 percent) of annual restatements involve overstatements (understatements).<sup>13</sup> The high incidence of corporate overstatements relative to understatements could reflect corporations’ incentive to inflate net assets and the absence of such an incentive in a nonprofit organization, or it could reflect auditors’ litigation-related incentives to detect overstatements in corporations.

The second part of Table 2, Panel C focuses on the dollar magnitude of the errors scaled by annual revenue. The magnitudes of the corporate restatements in [Burks \(2011\)](#) are after-tax

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<sup>11</sup> Early (late) revenue recognition errors are often cases when the organization recognized (failed to recognize) revenue for grants before (when) the requirements of the grant were satisfied.

<sup>12</sup> I begin with the 1,473 restatements from Table 1 of [Burks \(2011\)](#) and then retain the restatements that affect a year-end reporting period and that have total sales available on Compustat for the fiscal year of the financial statements that contain the restatement, leaving 1,032 restatements.

<sup>13</sup> I do not use this supplemental Audit Analytics file in the main tabulated analysis because the magnitudes provided can be either pre- or after-tax (with no identification of the tax basis), which is problematic for later analyses. Also, as described above, Audit Analytics sometimes has multiple entries for the same restatement, and it is often not clear how or whether to aggregate the reported magnitudes across entries.

amounts because they were computed by comparing the original and restated balances of retained earnings or owners' equity. To make the corporate error magnitudes comparable to the nonprofit error magnitudes (which are not affected by income taxes), I restate the corporate magnitudes to a pre-tax basis by assuming a 35 percent income tax rate if the corporation reported positive earnings in the fiscal year prior to announcing the restatement. To minimize the influence of outliers, the scaled errors are winsorized at the 1st and 99th percentiles in each sample.

The unsigned error magnitudes are similar across nonprofits and corporations, with means (medians) of 7.6 percent and 9.3 percent of revenue (1.9 percent and 1.4 percent of revenue). The means and medians do not statistically differ across the two samples. The proportion of errors that exceed 1 percent of revenue is also similar across the two types of organizations at around 60 percent.<sup>14</sup> It may seem surprising that only about 60 percent of the error magnitudes are above this materiality threshold, given that correction and disclosure are necessary only when the errors are material. However, quantitatively small errors are often judged to be material based on the circumstances of the error and other qualitative factors (e.g., U.S. Securities and Exchange Commission Staff Accounting Bulletin No. 99, SEC 1999). Also, some of these corrections involve multiple errors that net against each other. It is also possible that some of the errors are immaterial.<sup>15</sup>

### Intent behind the Errors

The nonprofits did not describe any of the sample accounting errors as intentional manipulations or irregularities, consistent with the low rate (3 percent) of admitted intentional manipulations among corporations (Plumlee and Yohn 2010). However, both nonprofits and corporations likely are reluctant to describe the errors as intentional manipulations. I look for evidence of intentional manipulations by testing whether nonprofits that experience operating deficits are more likely to overstate rather than understate net assets. Operating deficits can be seen as a threat to solvency or a sign of poor management, providing managers with an incentive to overstate net assets. In an untabulated test, among the organizations that commit errors, I find no significant correlation between an overstatement indicator variable and a count of the number of operating deficits in the prior three years.<sup>16</sup>

### Conditions Associated with Errors

I next investigate the conditions that are associated with nonprofit accounting errors, using the following logistic regression model:

<sup>14</sup> One percent of revenue appears to be a common quantitative materiality threshold. Brody, Lowe, and Pany (2003) report that a benchmark of 1 to 1.5 percent of revenue is mentioned in the *AICPA Audit and Accounting Manual* (AICPA 1996). Also, specific to nonprofits, International Auditing Standard 320, ¶A7 states that "the auditor may consider one percent of total revenue or total expenses to be appropriate for a not-for-profit entity" (International Federation of Accountants [IFAC] 2009).

<sup>15</sup> Inferences about error magnitudes are similar when excluding errors that have no effect on net assets, except that, compared to corporations, nonprofits have a higher median unsigned error magnitude (3.3 percent versus 1.9 percent,  $p$ -value < 0.01), and a higher proportion of errors that exceed 1 percent of revenue (77.1 percent versus 65.9 percent,  $p$ -value < 0.01).

<sup>16</sup> A limitation of the test is that it uses the originally reported (i.e., errant) operating deficit numbers, which is problematic if overstatements sometimes completely reverse true operating deficits. In most cases it is not possible to adjust reported operating deficits for the errors because the organizations do not disclose the annual impacts of the errors. In an alternative test, as an instrument for the frequency of operating deficits in the prior three years, I use the existence of an operating deficit in the year that the error is corrected (which is not affected by the error). In the full sample that includes firm-years that do not involve error corrections, the instrument is correlated with the number of operating deficits in the prior three years at 0.21 ( $p$ -value < 0.01). I find no significant correlation between the instrument and the incidence of overstatements.

$$\begin{aligned}
 \text{Error Correction}_t = & \beta_0 + \beta_1 \text{COMPLEXITY}_{t-1} + \beta_2 \text{SURPLUS}_{t-1} + \beta_3 \ln \text{SIZE}_{t-1} \\
 & + \beta_4 \text{GROWTH}_{t-1} + \beta_5 \text{YOUNG\_ORG}_{t-1} + \beta_6 \text{ADMIN\_EXP\_PCT}_{t-1} \\
 & + \beta_7 \text{ACCT\_FEE\_PCT}_{t-1} + \beta_8 \text{CFO}_{t-1} + \beta_9 \text{BIG4}_t + \beta_{10} \text{SECOND\_TIER}_t \\
 & + \beta_{11} \text{REGIONAL}_t + \beta_{12} \text{COMMON}_t + \beta_{13} \text{CONTROL\_DEFICIENCY}_{t-1} \\
 & + \beta_{14} \text{A133\_AUDIT}_{t-1} + \gamma \text{INDUSTRY} + \delta \text{YEAR} + \varepsilon_t
 \end{aligned}
 \tag{1}$$

The dependent variable is an indicator for whether the organization corrects prior-year errors in the audited financial statements for fiscal year  $t$ . The first set of explanatory variables captures inherent organizational characteristics and operating performance. The variables are based on Petrovits et al. (2011; hereafter, PSS), which examines the factors associated with internal control deficiencies of nonprofits. Unless stated otherwise, all financial statement variables come from NCCS, which is the common source of IRS 990 data used in nonprofit research:<sup>17</sup>

*COMPLEXITY* = the number of revenue sources. The three potential revenue sources are private donations, federal government grants, and service revenue.<sup>18</sup> *COMPLEXITY* is expected to increase the probability of errors;

*SURPLUS* = an indicator for whether total revenue exceeds total expenses. Organizations that do not have surpluses may be poorly managed or may have to shift resources away from administrative activities to fund mission-related activities. Thus, surpluses are expected to decrease the probability of errors;

*lnSIZE* = the natural log of total revenue. *lnSIZE* is expected to decrease the probability of errors because larger organizations have more resources to allocate to financial reporting activities;

*GROWTH* = ending total assets scaled by beginning total assets. *GROWTH* is expected to increase the probability of errors because expansion can be difficult to manage; and

*YOUNG\_ORG* = an indicator for whether the firm has been registered as a tax-exempt organization with the IRS for five or fewer years (based on the IRS ruling date obtained from NCCS). Younger firms are expected to be more likely to commit errors because of managers' lack of experience and the competing demands for attention posed by start-up activities.

The next set of explanatory variables proxies for the quality of the organization's financial reporting processes. The variables reflect the choices that nonprofit managers and boards of directors have made to invest or not invest in financial reporting processes. All except *CONTROL\_DEFICIENCY* and *A133\_AUDIT* are expected to be negatively associated with the occurrence of accounting errors:

*ADMIN\_EXP\_PCT* = "management and general" expenses as a percentage of total expenses, which proxies for the amount of resources that management devotes to administrative activities relative to program and fundraising activities (hand-collected from IRS 990s);

<sup>17</sup> The NCCS database contains the major financial statement items for all nonprofits, plus many supplemental items for a small subset of nonprofits. To minimize the number of observations in my sample that are lost due to missing values, I use any values available for a given data item in any NCCS file (annual core files, core trend files, digitized data files, SOI files, etc.). PSS describe the NCCS database structure in detail.

<sup>18</sup> I obtain federal government grants from the database of A-133 audits provided by the Federal Audit Clearinghouse (available at: <http://harvester.census.gov/sac/dissem/asp/download.asp>). Government grants can be classified as either donations or program service revenue on the IRS 990, depending on the characteristics. Thus, I consider an organization to have federal government grants only (one revenue source), if the amount of federal grants exceeds the sum of total donations and service revenue. If the amount of federal grants is less than the sum of total donations and service revenue, then I assume that some of the donations were from private sources. Instead of using the A-133 database to identify private and governmental revenue sources, PSS use supplemental variables from NCCS. I do not use the supplemental NCCS variables because they are not available for most of my sample.

*ACCT\_FEE\_PCT* = total accounting and auditing fees charged by outside firms and individuals (hand-collected from line 11c of the Statement of Functional Expenses in the IRS 990), as a percentage of total expenses;

*CFO* = an indicator variable denoting whether the organization employs an executive-level person who is dedicated to financial reporting (hand-collected from compensation schedules for officers and key employees in the IRS 990). The *CFO* variable is coded 1 if the organization employs someone with the title of chief financial officer (CFO), director of finance, vice-president of finance, or controller;

*BIG4*, *SECOND\_TIER*, *REGIONAL*, and *COMMON* = indicators for whether the financial statements were audited by Big 4, second-tier, regional, or other common auditors, respectively (hand-collected from audited financial statements). Auditors in the *SECOND\_TIER* are BDO USA LLP, Crowe Horwath LLP, Grant Thornton LLP, and McGladrey LLP and their predecessors (Hogan and Martin 2009). *REGIONAL* auditors are non-Big 4, non-second-tier firms that are among the top 25 revenue-earners in *Accounting Today's* 2009 Top 100 Firms list. *COMMON* auditors are any other audit firms that have at least ten clients in my sample; and

*CONTROL\_DEFICIENCY* = an indicator variable capturing whether an internal control deficiency over financial reporting was identified in the A-133 audit for year  $t-1$ . The variable equals 1 if the A-133 database from the Federal Audit Clearinghouse indicates that the organization had a reportable condition or material weakness associated with financial reporting in year  $t-1$ . Organizations generally do not undergo A-133 audits unless they receive over \$500,000 in federal funding. Consequently, to estimate the effect of a control deficiency incremental to the effect of undergoing an A-133 audit, I include an indicator variable capturing whether the organization undergoes an A-133 audit (*A133\_AUDIT*).

All explanatory variables except the auditor variables are measured in fiscal year  $t-1$ , in order to determine whether they predict errors that are disclosed in the fiscal year  $t$  financial statements. The auditor variables are based on the fiscal year  $t$  financial statements because the errors were most likely discovered during fiscal year  $t$  or during the audit of fiscal year  $t$ . I also include year and industry indicators. The set of year indicators only goes back to 2006 because there are few observations in a given year prior to that. Industry indicators are based on GuideStar's six organization types (listed in the "Sample and Error Identification" section).

Of the 5,511 firm-year observations hand-collected from GuideStar, 5,022 have the data on NCCS needed to compute the test variables. *GROWTH*, *ADMIN\_EXP\_PCT*, and *ACCT\_FEE\_PCT* are winsorized at the 1st/99th percentiles to reduce the effects of outliers. Consistent with the generally small size of the sample organizations, only 2, 5, and 6 percent of the organizations have a Big 4, second-tier, and regional auditor, respectively (untabulated).

Table 3 presents the coefficient estimates from logistic regression (1), with robust standard errors clustered at the firm level. The overall explanatory power of the model is low, with a pseudo  $R^2$  of 2.7 percent. Prediction models for public company restatements also have low explanatory power (Jones et al. 2008). As expected, the estimated coefficients on *BIG4* and *SECOND\_TIER* are negative and statistically significant ( $p$ -value  $< 0.01$ ), with odds ratios of 0.26 and 0.16. The inverse of the odds ratios suggests that the odds of an organization disclosing an accounting error are 3.4 (6.4) times higher when the auditor is not Big 4 (not second tier). In terms of probabilities, holding the other explanatory variables at their means, the presence of a Big 4 (second-tier) auditor reduces the probability of error from 5.7 percent to 1.5 percent (6.0 percent to 1.0 percent). The estimated coefficients on *REGIONAL* and *COMMON* auditors are also negative but are not statistically significant at conventional levels. The lower incidence of errors among clients of Big 4 or second-tier auditors could result from client self-selection, audit firm screening of clients, or superior auditing (i.e., catching errors before the financial statements are issued). From a donor

**TABLE 3**  
**Logistic Regression Testing Conditions Related to the Occurrence of Accounting Errors**

	<u>Predicted</u>	<u>Coefficient Estimates</u>	<u>Odds Ratio Estimates</u>
Intercept	?	-4.607*** (1.020)	
<i>COMPLEXITY</i>	+	0.059 (0.151)	1.06
<i>SURPLUS</i>	-	-0.029 (0.138)	0.97
<i>lnSIZE</i>	-	0.108 (0.067)	1.11
<i>GROWTH</i>	+	-0.010 (0.131)	0.99
<i>YOUNG_ORG</i>	+	-0.522 (0.349)	0.59
<i>ADMIN_EXP_PCT</i>	-	1.352 (0.838)	3.87
<i>ACCT_FEE_PCT</i>	-	-5.668 (10.079)	0.00
<i>CFO</i>	-	-0.038 (0.143)	0.96
<i>BIG4</i>	-	-1.360*** (0.569)	0.26
<i>SECOND_TIER</i>	-	-1.856*** (0.581)	0.16
<i>REGIONAL</i>	-	-0.304 (0.280)	0.74
<i>COMMON</i>	-	-0.035 (0.176)	0.97
<i>CONTROL_DEFICIENCY</i>	+	0.885*** (0.253)	2.42
<i>A133_AUDIT</i>	?	-0.167 (0.259)	0.85
Year indicators		Included	
Industry indicators		Included	
n errors (1)		303	
n non-errors (0)		4,719	
n total		5,022	
Pseudo R <sup>2</sup>		2.67%	

\*\*\*, \*\* Denote p-values of 1 percent and 5 percent, respectively, one-tailed if sign is in the predicted direction, two-tailed otherwise.

Robust standard errors clustered at the firm level are presented in parentheses below coefficient estimates. Industry indicators are based on GuideStar's six organization types (listed in Table 1). Pseudo R<sup>2</sup> is the Nagelkerke (1991) pseudo R<sup>2</sup> as computed by SAS.

The dependent variable is *Error Correction*: an indicator equal to 1 if the organization corrects prior-year errors in audited financial statements for fiscal year *t*.

All independent variables are measured as of fiscal year *t*-1 except for the auditor variables: *BIG4*, *SECOND\_TIER*, *REGIONAL*, and *COMMON*.

(continued on next page)

TABLE 3 (continued)

## Variable Definitions:

*COMPLEXITY* = the number of revenue sources. The three potential revenue sources are private donations, federal government grants, and service revenue. Service revenue and total donations are obtained from the NCCS database. Federal government grants are obtained from a database of organizations that have undergone A-133 audits. I consider an organization to have only federal government grants (one revenue source) if the size of the grants exceed the sum of total donations and service revenue. If the sum exceeds federal grants, then I assume that some of the donations were from private sources;

*SURPLUS* = an indicator for whether total revenue exceeds total expenses, obtained from NCCS;

*lnSIZE* = the natural log of total revenue, obtained from NCCS;

*GROWTH* = ending total assets scaled by beginning total assets, winsorized at the 1st and 99th percentiles, obtained from NCCS;

*YOUNG\_ORG* = an indicator for whether the firm has been registered as a tax-exempt organization with the IRS for five or fewer years, based on the IRS ruling date obtained from NCCS;

*ADMIN\_EXP\_PCT* = "management and general" expenses divided by total expenses, winsorized at the 1st and 99th percentiles, hand-collected from IRS 990s;

*ACCT\_FEE\_PCT* = total accounting and auditing fees charged by outside firms and individuals (hand-collected from line 11c of the Statement of Functional Expenses in the IRS 990), divided by total expenses, winsorized at the 1st and 99th percentiles;

*CFO* = An indicator for whether the organization employs someone with the title of chief financial officer, director of finance, vice-president of finance, or controller, hand-collected from compensation schedules for officers and key employees in the IRS 990;

*BIG4*, *SECOND\_TIER*, *REGIONAL*, and *COMMON* = indicators for whether the financial statements were audited by Big 4, second-tier, regional, or other common auditors, respectively, hand-collected from audited financial statements. Auditors in the *SECOND\_TIER* are BDO USA LLP, Crowe Horwath LLP, Grant Thornton LLP, and McGladrey LLP and their predecessors (Hogan and Martin 2009). *REGIONAL* auditors are non-Big 4, non-second-tier firms that are among the top 25 revenue-earners in *Accounting Today's* 2009 Top 100 Firms list. *COMMON* auditors are any other audit firms that had at least ten clients in my sample;

*CONTROL\_DEFICIENCY* = an indicator variable capturing whether the A-133 database indicates that the organization had a reportable condition or material weakness associated with financial reporting, obtained from the Federal Audit Clearinghouse database; and

*A133\_AUDIT* = an indicator variable capturing whether the organization undergoes an A-133 audit, obtained from the Federal Audit Clearinghouse database.

perspective, pragmatically this means that organizations with Big 4 or second-tier auditors are much less likely to issue errant financial statements.<sup>19</sup>

As expected, the estimated coefficient on *CONTROL\_DEFICIENCY* is positive and statistically significant (p-value < 0.01). The odds ratio of 2.4 suggests that a control deficiency more than doubles the odds that an accounting error will be disclosed in the following year. In terms of probabilities, holding the other explanatory variables at their means and holding *A133\_AUDIT* at 1, an internal control deficiency over financial reporting increases the probability of an error from 4.7 percent to 10.7 percent. None of the other explanatory variables have statistically significant coefficients, and a Wald test indicates that the coefficients on the industry indicator variables do not differ from each other at the 5 percent level of significance (untabulated). The lack of statistical significance could reflect low statistical power, measurement error in the variables, or a lack of real effects.<sup>20</sup>

<sup>19</sup> In untabulated analysis, I find that the error rate among nonprofits that use large auditors (i.e., Big 4 or second tier) is not statistically different from the error rate among corporations that use large auditors (2.3 percent for nonprofits versus 3.6 percent for corporations). In contrast, the error rate associated with small auditors is significantly higher for nonprofits compared to corporations (6.3 percent for nonprofits versus 4.8 percent for corporations, p-value < 0.01).

<sup>20</sup> To test the possibility that the variables that proxy for the quality of financial reporting processes compete with each other for explanatory power, I re-estimate the regression by including each of the proxies one at a time (untabulated). Inferences remain the same; the estimated coefficients remain statistically significant for *BIG4*, *SECOND\_TIER*, and *CONTROL\_DEFICIENCY*, and none of the other proxies have statistically significant coefficients. I also re-estimate the fully specified regression using only the firm-years that involve A-133 audits, and find that the effect of *CONTROL\_DEFICIENCY* remains statistically and economically significant (odds ratio of 2.3, p-value < 0.01).

## ERROR REPORTING PRACTICES

### Visibility of Error Corrections in Audited Financial Statements

Motivated by concerns about the visibility of corporate restatements (Turner and Weirich 2006; Files et al. 2009), next I examine how visibly the error corrections are presented in audited financial statements and in the IRS-mandated financial regulatory report, the IRS 990.<sup>21</sup> The independent auditor's report for the financial statements represents a highly visible way to disclose the error because it precedes the financial statements and footnotes. However, Panel A of Table 4 shows that only 25 percent of error corrections are mentioned in auditor reports. The relevant auditing standard in place for nonprofit audits at the time (AU 508.16–18) required that audit reports mention material changes in accounting principle, in order to alert users about the lack of consistency from period to period (Public Company Accounting Oversight Board [PCAOB] 2004). Although this requirement would seem to imply that corrections of material errors should be mentioned as well, the auditing standards did not explicitly address disclosure of errors in audit reports until 2012 (AU-C 708.13, AICPA 2014). It is also possible that audit reports do not mention errors because the errors are considered immaterial. However, when the sample is limited to errors that are greater than 1 percent of revenue, the auditor's report mentions the correction only 29 percent of the time.<sup>22</sup> As shown in Panel A, readers who take the time to read the footnotes will likely notice error corrections because they are disclosed in the footnotes about 97 percent of the time. Readers may also notice “restated” labels on the face of the financial statements, which are present 83 percent of the time.

### Visibility of Error Corrections in IRS 990s

Panel B of Table 4 examines the visibility of error corrections in the IRS 990. The 990 has a designated line item for the cumulative effect of the error correction on net assets. The line item is part of a schedule that shows the articulation between beginning net assets, the current year's income, and ending net assets. The schedule will not articulate unless the cumulative effect of the error is listed. In examining whether nonprofits appropriately complete this line item, I eliminate the error corrections that do not affect net assets because the schedule will articulate even if the cumulative effect (0) is not listed. Then I eliminate years when the 990 was not available on GuideStar, leaving 260 of the original 336 error corrections.

I find that 104 of the 260 error corrections (40 percent) were neither reported in the current year's 990 nor in amended 990s for prior years. However, there may be legitimate reasons for the omissions. The first possibility is that the 990 amounts were not affected by the error because of differences in accounting methods or entity definition across the 990 and audited financial statements.<sup>23</sup> Indeed, in 44 of the 104 cases of omission (42 percent), the 990 and audited financial statements differ in net assets by at least  $\pm 20$  percent, suggesting accounting method or entity differences. However, in 30 of these 44 cases (68 percent), the financial statements within the IRS 990 do not articulate. Thus, items affecting net assets have, in fact, been omitted from these 990s.

<sup>21</sup> Some nonprofits also issue annual reports that primarily contain marketing information. I find that only 12 percent of these annual reports mention the error corrections, but this is not surprising because many annual reports do not contain any financial information or provide financial information for the current year only.

<sup>22</sup> In untabulated analysis, I find that this percentage remains under 30 percent even when the sample is limited to errors that are greater than 10 and 50 percent of revenue, as well as when the sample is limited to errors that are greater than 10 and 50 percent of total assets.

<sup>23</sup> Keating and Frumkin (2003) discuss differences between generally accepted accounting principles and 990 instructions. Organizations can also elect to use cash-basis accounting for the 990 (in my sample only three of the 990s that omitted the error corrections were stated on a cash basis).

**TABLE 4**  
**Visibility of Error Corrections**

**Panel A: Visibility of Error Corrections in the Audited Financial Statements**

	<u>All Errors</u>	<u>Errors with a Non-Zero Impact</u>	<u>Errors Above 1% of Revenue</u>
n	336	266	204
Mentioned in auditor's report	25.0%	25.9%	28.9%
Labeled on face of financial statements	83.0%	84.2%	86.3%
Reported in footnotes	97.3%	97.4%	97.5%

The panel presents how frequently errors are reported in various sections of the audited financial statements. The revenue amount used to compute "Errors above 1% of revenue" is obtained from the Core Data files of the NCCS database or is hand-collected if missing.

**Panel B: Visibility of Error Corrections in the IRS 990 (n = 260)**

	<u>Count</u>	<u>Percent</u>
Corrections disclosed in IRS 990	156	60.0%
Corrections not disclosed in IRS 990	104	40.0%
Total	260	100.0%
Reasons why corrections are not disclosed in IRS 990:		
Organization reports that it does not have audited financial statements	17	16.3%
Apparent differences in accounting method or entity across IRS 990 and audited financial statements	16	15.4%
Apparent noncompliance with IRS 990 instructions	71	68.3%
Total	104	100.0%

This panel presents how frequently errors are disclosed in IRS 990s and reasons for not disclosing the errors. The correction's cumulative effect on net assets needs to be reported in order to make the current year's income articulate with the change in net assets shown in the IRS 990. Thus, I eliminate the error corrections that do not affect net assets. Then I eliminate years when the IRS 990 was not available on GuideStar, leaving 260 of the original 336.

**Panel C: Logistic Regression Estimating the Propensity to Disclose Error Corrections on the IRS 990**

	<u>Coefficient Estimates</u>	<u>Odds Ratio Estimates</u>
Intercept	-2.20 (2.41)	
<i>Egregious error</i>	0.15 (0.33)	1.17
<i>Old format</i>	1.44*** (0.32)	4.22
<i>lnSize</i>	0.16 (0.16)	1.17
<i>CFO</i>	-0.01 (0.38)	0.99
n disclosures (1)	156	
n omissions (0)	71	
n total	227	
Pseudo R <sup>2</sup>	14.5%	

*(continued on next page)*



TABLE 4 (continued)

\*\*\*, \*\* Denote statistically significantly different from zero at the 1 percent and 5 percent confidence levels (two-tailed), respectively.

Standard errors are presented in parentheses below coefficient estimates.

Pseudo R<sup>2</sup> is the Nagelkerke (1991) pseudo R<sup>2</sup> as computed by SAS.

The dependent variable equals 1 if the error correction is disclosed in the IRS 990, 0 otherwise. *Egregious error* equals 1 if the error involves a misstatement of cash, an understatement of employee compensation, or multiple errors that sum to greater than 1 percent of annual revenue, 0 otherwise. *Old format* equals 1 if the fiscal year-end for the IRS 990 is before December 2008, 0 otherwise.

See Table 3 for other variable definitions.

The omitted items generally appear to be the error corrections, because in 24 of the 30 cases of inarticulation (80 percent), the amount of the inarticulation is within  $\pm 20$  percent of the error magnitude reported in the audited financial statements (in many cases, the amount of inarticulation and the error amount are exactly equal). Thus, it does not appear that differences in accounting methods or entity definitions are the main reason that error corrections are omitted from 990s.

The second possible reason that the 990 omits the error correction is that the organization may not be required to complete the section of the 990 where the effect of the error is reported. When the IRS changed the 990 format in 2008, it specified that the section did not need to be completed if the organization was filing a group return or if the organization did not receive an audited financial statement for the year for which it was completing the 990 (Internal Revenue Service [IRS] 2008b, 4–5). The new rules do not appear to explain most of the 104 error omissions. None of the 990s were designated as group returns, and organizations reported not receiving audited financial statements in only 17 of the 104 IRS 990s (16 percent).<sup>24</sup>

Next, I eliminate cases that conform to the two reasons above in order to estimate the extent of noncompliance with the 990 error reporting requirement. I eliminate the 17 cases when the organization reported not receiving audited financial statements (second reason). Then I eliminate the 16 additional cases that are likely explained by accounting method or entity differences (first reason), i.e., cases that meet both of the following subjective criteria: (1) greater than  $\pm 20$  percent differences in net assets across the 990 and audited financial statements, and (2) the error magnitude in the audited financial statements is not within  $\pm 20$  percent of the amount of inarticulation in the 990. For the remaining 71 cases, noncompliance appears to explain why the organizations omitted the corrections.<sup>25</sup> These 71 cases represent an estimated noncompliance rate of 31 percent with 990 reporting requirements (71 omissions/[71 omissions + 156 disclosures]).

Next, I examine the factors associated with apparent noncompliance by using the following logistic regression model:

<sup>24</sup> Organizations report whether they received audited financial statements in question 12 of Part IV of the 2008 IRS 990, or in question 12A of Part IV in later forms. A question arises as to why these 17 organizations reported that they did not receive audited financial statements when they did, in fact, have audited financial statements available on GuideStar. The IRS's audited financial statements criterion does not apply unless the financial statements are prepared in accordance with generally accepted accounting principles (GAAP). I noted a few sample organizations that openly departed from GAAP in some respects. The criterion also does not apply if the organization is merely included in a consolidated audited financial statement rather than having a separate audited financial statement (IRS 2008a, 11).

<sup>25</sup> Omitting the correction will prevent the current year's revenue less expenses from articulating with the change in net assets. In 47 percent of the cases, the organizations simply file IRS 990s that do not articulate within the fiscal year. In 31 percent of the cases, the organizations update the prior-year balances for the correction without noting in the form that this has been done. The IRS 990 thus articulates within the fiscal year, but the beginning balances do not articulate with the ending balances from the prior year's IRS 990. In the remaining 23 percent of the cases, other tactics were used, such as burying the error amount in a revenue or expense, or it was difficult to identify the tactic.

$$\text{Disclose in } 990_i = \beta_0 + \beta_1 \text{Egregious error}_i + \beta_2 \text{Old format}_i + \beta_3 \ln \text{Size}_i + \beta_3 \text{CFO}_i + \varepsilon_i. \quad (2)$$

*Disclose in 990<sub>i</sub>* is an indicator variable capturing whether error correction *i* is disclosed in the [IRS 990](#). Nonprofit managers would have incentives to omit the corrections when the errors are egregious, in hopes that fewer donors will learn about the errors. *Egregious error<sub>i</sub>* is an indicator variable denoting whether an error involves: (1) misstatement of cash, (2) understatement of employee compensation, or (3) multiple errors that sum to a material amount (greater than 1 percent of annual revenue).<sup>26</sup> I require a material amount for the last criterion because some organizations may have a policy of correcting all audit adjustments regardless of materiality. Approximately 30 percent of the observations used in this test are classified as *Egregious error<sub>i</sub>* = 1.<sup>27</sup> I also include an indicator variable called *Old format<sub>i</sub>* denoting whether the [IRS 990](#) has the old format for reporting errors. In tax year 2008, the articulation schedule moved from the front page to a more obscure location several pages into the form (Schedule D, Part XI). I include *lnSize* as a basic proxy for preparer sophistication, and include the *CFO* indicator variable because it indicates that there is a high-ranking person in the organization who is dedicated to financial reporting. I do not include the indicator variables for Big 4 and second-tier auditors or for internal control deficiencies because of the small number of these observations in the sample.

Regression (2) is estimated on the 156 observations where the error was disclosed in the 990 (*Disclose in 990<sub>i</sub>* = 1) and the 71 observations where the error was omitted from the 990 due to apparent noncompliance (*Disclose in 990<sub>i</sub>* = 0). Results are presented in Panel C of Table 4. Disclosure in the 990 is not significantly related to the egregiousness of the error, organization size, or having a *CFO*. In contrast, the odds of disclosing the error correction in the 990 were four times higher under the old 990 format (estimated coefficient p-value < 0.01), indicating lack of expertise about the requirements of the new form, or the managers' beliefs that outsiders will not notice the suppression of the error because the new form obscures the resulting lack of articulation.<sup>28</sup>

## CONCLUSION

This study analyzes the accounting errors disclosed by public charities. It finds that public charities disclose errors at a rate that is considerably higher than that of U.S. publicly traded companies. The errors tend to involve the failure to recognize items that should be recognized (i.e., errors of omission). They are split evenly between overstatements and understatements of net assets, unlike corporate restatements that tend to involve overstatements of net assets. The errors are strongly predicted by internal control deficiencies and auditor type, with clients of Big 4 and second-tier auditors having a significantly lower probability of errors. Finally, the errors often have low visibility in the financial reports issued by public charities; although they are reported in the footnotes of the audited financial statements, they often are not mentioned in auditor reports and in [IRS 990s](#).

Questions arise about what the nonprofit error rate implies about the quality of nonprofit financial reporting and auditing, and what actions, if any, could be taken to reduce the error rate.

<sup>26</sup> None of the cash errors were described as misclassifications involving cash, cash equivalents, investments, or sections of the Statement of Cash Flows. Rather, they appear to involve failing to discover errors in the cash balance before financial statements are issued, thus indicating weak internal controls.

<sup>27</sup> Approximately 6 percent of the observations involve cash misstatements, 4 percent involve understatements of employee compensation, and 25 percent involve material multiple errors.

<sup>28</sup> In terms of simple percentages, after the change in format, the percentage of error corrections properly disclosed in 990s falls from 84 percent to 55 percent. This decline cannot be caused by a spurious effect related to the jump in sample size in calendar year 2008 (Table 1, Panel A). The 990 format changed with the tax year 2008, not the calendar year 2008; in contrast, untabulated analysis shows that the jump in sample size occurs in tax year 2007, before the 990 format changed.

The error rate of U.S. corporations is a stringent benchmark because the U.S. capital markets represent one of the highest quality financial reporting environments in the world (Leuz, Nanda, and Wysocki 2003), and U.S. corporations invest significant resources in financial reporting processes due in part to incentives related to Section 404 of the Sarbanes-Oxley Act. This study finds that when nonprofits use a large auditor (Big 4 or second tier), their error rate is much lower and is similar to that of U.S. corporations. However, the presence of a large auditor is likely associated with other fundamental conditions that are difficult or costly to attain, such as an institutional commitment to quality financial reporting and strong internal controls and reporting processes. Only a small percentage of nonprofits use large auditors, suggesting that resource constraints or competing priorities make it difficult for most nonprofits to hire large auditors and make the related investments in financial reporting processes.

The question then becomes what actions nonprofits may take to reduce the incidence of accounting errors. Based on the high number of errors involving the failure to recognize items (i.e., errors of omission), it appears that nonprofit managers could reduce errors by improving their accounting systems' ability to collect information from the operating environment and signal when recognizable events have occurred. Corrective actions could include training staff throughout the organization to identify recognizable events, developing procedures through which those events are communicated to the accounting function, and instituting regular reviews to detect recognizable events. Auditors may also increase the probability of detecting errors of omission by focusing their internal control testing on nonprofits' procedures to identify and capture recognizable events, and by focusing substantive testing on management's completeness assertion, as opposed to testing the existence and accuracy of amounts that have already been recognized.

From an audit quality perspective, although restatements can be portrayed as audit failures, the silver lining of the relatively high nonprofit error rate is that it indicates that the audits are sufficiently rigorous and independent to eventually result in detection and disclosure of errors. Auditors do not appear to be excessively waiving errors or allowing clients to quietly correct the errors without any disclosure (perhaps by rationalizing that the errors are immaterial). Such lax auditing practices are real possibilities in weak regulatory environments, as illustrated by Srinivasan, Wahid, and Yu (2015), which finds that foreign firms listed on U.S. exchanges have *low* restatement rates, particularly if they are domiciled in countries with *weak* legal regimes.

From this perspective, it is somewhat reassuring to observe a relatively high rate of disclosed errors among what are mostly small auditors auditing small clients, because the enforcement regime surrounding nonprofit audits is not as strong as that surrounding U.S. public company audits. Nonprofits' external reporting environment has no equivalent to the Securities and Exchange Commission, which conducts detailed reviews of each public company's financial statements at least once every three years. Moreover, audits of nonprofits are not subject to the inspection regime of the PCAOB, which was created to address perceived deficiencies in the peer review-based monitoring program (to which nonprofit audits are subject). The relatively high rate of disclosed errors among nonprofits thus represents evidence contrary to concerns that small auditors are allowing material errors to go uncorrected period after period, or are allowing errors to go undisclosed when corrected.

A limitation of the study is that the sample of accounting errors was compiled from financial statements voluntarily publicized through GuideStar, creating the potential for selection bias. This bias may cause the observed rate of disclosed accounting errors to be lower than the actual rate, because organizations prone to errors may tend not to post their financial statements on GuideStar. Analysis described in the "Sample and Error Identification" section fails to find evidence of a selection bias, but it could still be present. Another limitation is the exclusion of healthcare and educational nonprofits from the sample.

Future research could explore whether nonprofit audit quality varies with state regulations and enforcement. Additionally, more study is warranted of the striking contrast in sign between the errors of nonprofits and corporations. The even split between overstatements and understatements of net assets among nonprofits raises questions about why corporations mostly overstate net assets while nonprofits do not. One potential explanation is that the corporate profit motive creates incentives for corporate managers to overstate net assets. However, research on corporate restatements tends to classify only a minority of the errors as intentional (Hennes et al. 2008). Corporations may have a natural bias toward overstatements in order to show growth or hit earnings targets, which is not reflected in common researcher proxies for intent. Another potential explanation for the directional difference is that auditors of corporations may employ asymmetric materiality thresholds for overstatements versus understatements of net assets due to the asymmetric nature of the litigation risk they face. Insight might be gained by studying accounting errors in hospitals, allowing the organization type to be held constant while characteristics of the errors could be compared across nonprofit and for-profit entities.

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