The relation between earnings and executive compensation in nonprofit healthcare organizations

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ABSTRACT

This study examines the relationship between multiple components of nonprofit health care (NPHC) executive compensation and reporting earnings using a sample of 504 firm-year observations from 97 large NPHC organizations gathered from IRS 990 filings. I extend the current literature by documenting that the association between earnings (change in earnings) and NPHC executive compensation (change in NPHC executive compensation) is driven by elements of compensation more likely to be related to performance - bonuses and retirement compensation. Additional results indicate that firms with the highest levels of earnings display a significantly stronger incremental relation between reported earnings and those performance-aligned elements of NPHC executive compensation. Finally, this paper extends current NPHC literature by finding evidence that increasing numbers of independent board members act to constrain NPHC executive compensation.

KEYWORDS: Executive Compensation, Not-for-profit, Healthcare

INTRODUCTION

Nonprofit healthcare organizations (NPHC) operate in a unique regulatory environment with oversight from federal and state governmental entities as well as private third-party payors and consumers. This environment has the potential to lead to financial performance motivations that are different than for-profit or governmental entities. For example, NPHCs do not seek to maximize profit largely due to constraints associated with their tax-exempt and nonprofit status. High levels of reported earnings would more likely garner negative attention from regulators and stakeholders, and profits should not be the primary motivation of a nonprofit entity by its very definition.

This study examines whether the personal compensation motivations for NPHC executives have changed in recent decades. The question of whether those motivations have changed stems from changes in the structure of the NPHC industry over the prior two decades. Brickley and Van Horn (2002) document the link between NPHC CEO compensation and earnings using a sample of independent hospitals from 1993-1995 that were not part of a larger health care system. The mean CEO compensation in their sample is $183,954, and the mean NPHC total assets is $73,028,931. There is reason to believe that sort of sample may be less relevant today than it was at time of analysis. There have been more than 1,600 hospital mergers from 1998-2017 affecting thousands of individual hospitals (Gaynor 2020), and more than 80 percent of US hospital markets qualify as highly concentrated according to Cooper et al. (2019). Consolidations led to more than two-thirds of US hospitals being part of a larger healthcare system by 2017, with that trend in mergers and acquisitions expected to have continued in recent years. Beyond consolidations, there also appears to be systemic change in how NPHC executive compensation is structured. Leone and Van Horn (2005) cite evidence that only 43% of NPHC CEOs received bonus pay in 1994 and that only a fraction of those bonuses was based on financial performance. Using a sample of larger, multi-hospital NPHCs that I analyze 504 firm-year observations spanning from 2011-2020 gathered from IRS 990 filings. Unlike statistics cited from 1994 where only 43 percent of CEOs received any type of bonus pay, 94 percent of the firm-year observations in my sample include bonus payments for NPHC CEOs and CFOs. Additionally, mean CEO compensation in my sample is $3,242,567 and mean NPHC total assets is $4,035,773,968, many multiples larger than what is observed in the sample from Brickley and Van Horn (2002).

Results confirm that the link between reported earnings and NPHC executive compensation has persisted in recent decades. I extend the current literature by documenting that the link between NPHC executive compensation and earnings is driven by the association between earnings and the performance elements of total compensation (bonus and retirement compensation). Further, I find no significant association between earnings and executive base salary. This same pattern of association holds between changes in NPHC CEO compensation and changes in earnings.

Nonprofit healthcare organizations (NPHC) operate in a unique regulatory environment with oversight from federal and state governmental entities as well as private third-party payors and consumers. This environment has the potential to lead to financial performance motivations that are different than for-profit or governmental entities. For example, NPHCs do not seek to maximize profit largely due to constraints associated with their tax-exempt and nonprofit status. High levels of reported earnings would more likely garner negative attention from regulators and stakeholders, and profits should not be the primary motivation of a nonprofit entity by its very definition.

The extant literature provides evidence that despite their nonprofit status, NPHC managers have multiple motivations associated with reported earnings and that NPHC managers take actions to influence their reported earnings. Brickley and Van Horn (2002) provide evidence that changes in earnings are positively associated with NPHC CEO compensation and negatively associated with NPHC CEO turnover. Other studies have documented that NPHCs engage in accruals management (Leone and Van Horn 2005; Elshafie and Alam 2011) and real earnings management (Eldenberg et al. 2011) to increase reported earnings. Eldenberg et al. (2011) also find that NPHCs with higher pay-for-performance motivations are more likely to engage in real earnings management.

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I further investigate the association between earnings and NPHC executive compensation for NPHCs that display the highest levels of earnings (highest decile of earnings). I find that hospitals that fall in the highest decile display a statistically significant increase in the association between earnings and NPHC executive compensation. This offers one explanation for why a nonprofit organization would report high earnings even when doing so is not consistent with their nonprofit status and has the potential to garner unwanted attention from regulators and policymakers who may question the tax-exempt status of nonprofits that report large profits. Lastly, results indicate that higher numbers of independent voting board

members restrict NPHC executive compensation contrary to theory about the efficacy of nonprofit boards. These results should be of interest to both regulators, policymakers, and NPHC stakeholders who have a need to understand the motivations of NPHC executives and the results of growing NPHC systems.

RELATED LITERATURE

Much of the literature surrounding nonprofit organizations has argued that nonprofit executive compensation has little, if any, link to earnings and is, instead, linked to progress towards organizational mission and maximization of prestige (Newhouse 1970; Frumkin and Andre-Clark 1999). Hansmann (1980) sums up the logic behind the assumption that no link between earnings and executive compensation exists by explaining that nonprofit organizations are limited in their ability to distribute earnings to management or other stakeholders. Earnings are, instead, to be retained by the organization to fulfil its mission. Hansmann (1996) extends this argument to boards of directors stating that nonprofit boards have less incentive to monitor managers since there are no stakeholders with an interest in residual earnings. Rather than seek higher compensation, Glaeser and Shliefer (2001) argue that nonprofit managers will seek other benefits such as reduced workloads, better working environments, and additional staffing. Frumkin and Keating (2001) find evidence that nonprofit executives tend to have large fixed components in compensation rather than components that may vary up and down with financial performance.

Nonprofit hospitals, however, appear to exhibit very different behavior than other nonprofit entities. The extant literature indicates that nonprofit hospitals exhibit behaviors similar to for-profit hospitals (Sloan 1998; Carey 1997; Sloan and Hsieh 2012). Several studies have documented that NPHC managers take actions to influence earnings. Leone and Van Horn (2005) and Elshafie and Alam (2011) find that NPHCs engage in accruals management to alter earnings. Eldenberg et al. (2011) find that NPHCs also engage in real earnings management in order to influence earnings. These studies clearly indicate that NPHC managers have an interest in reported earnings and will take actions to influence those earnings. They also find that NPHCs with higher pay-for-performance incentives are more likely to engage in real earnings management via decreases in non-revenue generating expenditures. While these results suggest a link between reported earnings and compensation, Brickly and Van Horn (2002) provide a direct test of the association between earnings and NPHC executive compensation. They analyze a sample of 714 observations drawn from short-term, acute care hospitals from 1993-1995. Their sample compensation data are drawn from a database of IRS 990 filings, while CEO change and hospital characteristic data are drawn from American Health Association publications. Their results indicate a strong association between earnings, measured as ROA, and CEO turnover and change in CEO compensation.

HYPOTHESES

This study focuses on nonprofit healthcare entities and excludes for-profit and publicly owned healthcare entities. For-profit entities have a clear profit motivation. The association between earnings and executive compensation, therefore, is less ambiguous for that type of

healthcare organization. Publicly owned healthcare entities receive substantial government support to fund operations. That support significantly dampens any profit motivations and would simultaneously dampen any association between earnings and executive compensation due to understanding that achieving a profit is not a primary goal of the organization.

NPHC organizations have financial motivations that lie somewhere between for-profit and publicly owned healthcare organizations. By virtue of being nonprofit organizations, the motivation for achieving profits should be secondary to the motivations of achieving the organizational mission. This mission-oriented point-of-view, however, is likely to be tempered by the financial reality that NPHCs do not receive any direct governmental support and must be financially self-sustaining much like for-profit organizations. Many NPHCs have related foundations which solicit donations to supplement their operations, but those donations are generally a fraction of the revenues generated through the provision of services. This leaves managers of NPHCs pulled in one direction by the altruistic, nonprofit mission of the organization and in another direction by the financial reality that the generation of revenues, containment of costs, and the resulting earnings must sustain the organization in the present and into the future.

This tension for NPHC managers leads to my first set of hypotheses. If NPHC organizations seek to motivate their executives to pursue mission over profitability, then I would expect a weak or no association between earnings and executive compensation. If NPHC organizations, on the other hand, seek to motivate their executives to pursue profitability, then there should be a significant association between earnings and executive compensation. I specifically hypothesize that the strongest associations between earnings and executive compensation will occur bonus and retirement compensation, which I combine and refer to as performance compensation. I expect that base compensation will have a much lower association with earnings given that it is fixed prior to the beginning of a period. Bonus compensation, however, can be as low as zero or as high as a board of directors will allow it to be, and bonus compensation in a period is generally linked to some type of performance in that period. Retirement compensation generally has a non-zero component regardless of performance. It, however, also often takes on the same characteristics as bonus compensation in that the amount of retirement compensation given in a period can be dependent on current period performance. I present my first set of hypotheses related to this discussion, in null form, as follows:

Hypothesis 1 (H1): There is no significant relation between earnings and NPHC
executive total compensation

Hypothesis 2 (H2): There is no significant relation between earnings and NPHC
executive base compensation

Hypothesis 3 (H3): There is no significant relation between earnings and NPHC
executive performance compensation

NPHCs, like other nonprofits, operate under tax-free status. High levels of NPHC profits have the potential to garner negative attention from regulatory bodies in an environment where arguments have been made that the tax-free status of NPHCs is unwarranted and certain NPHCs have even seen their nonprofit status revoked. This leaves the question of why some NPHCs

generate high earnings in a given period. One potential explanation for NPHCs generating high earnings is that NPHC managers have personal financial motivations, in the form of higher performance compensation, to generate those high earnings. In other words, high earnings lead to even higher executive compensation. This possibility is put into a null-form hypothesis as follows:

>Hypothesis 4 (H4): There is no significant relation between high levels of earnings and NPHC executive performance compensation

H1, H2, and H3 focus on the association of earnings levels with executive compensation levels. I supplement that line of examination by also investigating the association between changes in earnings and changes in executive compensation. It is plausible that while total compensation level or base compensation levels could have weak or no relation with earnings levels, but changes in total and/or base compensation could be significantly associated with changes in earnings. Moving from a levels analysis to a changes analysis causes the loss of numerous observations merely due to the structure of the analysis. More observations are eliminated due to the very high volatility in compensation change. These limitations force me to focus only on CEO compensation where more observations are available. Hypotheses related to changes in total, base, and performance compensation are presented in null form as follows:

>Hypothesis 5 (H5): There is no significant relation between changes in earnings and changes in NPHC CEO total compensation

>Hypothesis 6 (H6): There is no significant relation between changes in earnings and changes in NPHC CEO base compensation

>Hypothesis 7 (H7): There is no significant relation between changes in earnings and changes in NPHC CEO performance compensation

MODELS AND SAMPLE

I test H1, H2, and H2 using OLS regression and model 1 (M1). The dependent variable for M1 is $Exec\_Comp_t$ which represents one of six different executive compensation measures. For H1, $Exec\_Comp_t$ is measured either as CEO_Total_t or CFO_Total_t. I examine CEO and CFO compensation separately given that NPHC CEOs have responsibility for the entirety of the organization, mission and financial, whereas CFOs have a specific responsibility over the financial health of the organization. Testing CEO compensation and CFO compensation separately examines whether these two executive roles have differing compensation motivations. The variable of interest in M1 is current period earnings, $EARN_t$. These earnings are deflated by current period total assets which transforms them into a return on assets metric. If NPHC executive compensation has an association with earnings, then $EARN_t$ will positive and significant coefficient. I include the number of independent voting board members, IVM_t, as a control variable. If the NPHC boards are active in the compensation process, then the number of independent voting board members should act as a constraint against excessively high levels of executive compensation leading to a negative coefficient on IVM_t. I include two variables to control for size, number of employees ($EMPL_t$) and log of total assets (log (TA_t)). $EMPL_t$

measures sizes in terms of human assets, and $\log(TA_t)$ measures size in terms of traditional assets. I expect that executive compensation will be positively associated with measures of size. Lastly, I include a discrete variable, $YEAR_t$, which takes on a value between one and nine representing years from 2011-2019 to control for effects by year.

$$Exec\_Comp_t = \beta_0 + \beta_1 EARN_t + \beta_2 IVM_t + \beta_3 EMPL_t + \beta_4 \log(TA_t) + \beta_5 YEAR_t \tag{M1}$$

I test H4, whether an increased association between executive compensation and earnings exists for high earning NPHCs, using model 2 (M2) which is a variation of M1. I include an indicator variable, $High_t$, which takes on the value of 1 for observations in the highest decile of $EARN_t$. I then interact $High_t$ and $EARN_t$. This interaction variable, $High_t * EARN_t$, measures the incremental effect of earnings for these high earnings firms on executive compensation. For the dependent variable, $Exec\_Perf_t$, I again test CEO and CFO compensation separately using CEO_Perf_t and CFO_Perf_t. I focus specifically on the performance compensation, rather than total or base compensation, because that is the component of total compensation I expect to the most associated with earnings.

$$Exec\_Perf_t = \beta_0 + \beta_1 EARN_t + \beta_2 High_t + \beta_3 (High_t * EARN_t) + \beta_4 IVM_t + \beta_5 EMPL_t + \beta_6 YEAR_t \tag{M2}$$

I lastly test H5, H6, and H7, hypotheses examining the association between changes in compensation and changes in earnings, using model 3 (M3). Unlike M1 and M2, I only use CEO compensation measures (ΔCEO_Total_t, ΔCEO_Base_t, ΔCEO_Perf_t) due to limitations imposed by the structure of a changes analysis and the lower number of CFO compensation observations. ΔCEO_Comp_t for each of the three measures is calculated as (CEO_Comp_t - CEO_Comp_{t-1}) / CEO_Comp_{t-1}. The variable of interest, $\Delta EARN_t$, is calculated in a similar manner as ($EARN_t$ - $EARN_{t-1}$) / $EARN_{t-1}$. I expect the coefficient on $\Delta EARN_t$ to be positive if an association exists between change in CEO compensation and change in earnings.

$$\Delta CEO\_Comp_t = \beta_0 + \beta_1 \Delta EARN_t + \beta_2 IVM_t + \beta_3 EMPL_t + \beta_4 \log(TA_t) + \beta_5 YEAR_t \tag{M3}$$

I gather a sample from IRS 990 filings for years between 2011-2019. Table 1 displays full sample and observations removed due to missing data. The full sample consists of 504 firm year observations from 97 nonprofit community health, general hospital, or specialty hospital (i.e., cancer centers, children's hospitals) organizations. 75 observations have missing CEO compensation data resulting in a sample size of 429 firm-year observations for CEO compensation analysis. 105 observations have missing CFO compensation data resulting in a sample size of 399 firm-years observations for CFO compensation analysis.

Descriptive statistics for the full sample are presented in table 2. These entities represent large NPHC organizations with mean total assets of $4.04 billion, mean annual revenues of $2.63 billion, and mean annual earnings of $157 million. Mean total CEO salary (CEO_TOTAL_t), including all salary elements, is $3,2424,567, mean CEO base salary (CEO_BASE_t) is $1,276,391, mean CEO bonus compensation (CEO_Bonus_t) is $952,809, and mean CEO retirement compensation (CEO_Ret_t) is $463,160. The mean change in CEO total compensation (ΔCEO_Total_t) is 12.9 percent with a median change of 7.6 percent. Changes in CEO base compensation (ΔCEO_Base_t) are milder with a mean of 2.9 percent and a median of 4.0 percent. Change in CEO performance compensation (ΔCEO_Perf_t), where performance compensation defined as bonus plus retirement, shows much higher volatility with a mean

change of 42.0 percent and a median change of 6.7 percent. Mean total CFO salary (CFO_TOTAL_t) is \$1,272,279, mean CFO base salary (CFO_BASE_t) is \$662,129, mean CFO bonus compensation (CFO_Bonus_t) is \$308,239, and mean CFO retirement compensation (CFO_Ret_t) is \$139,150.

Table 3 presents Pearson correlations for variables of interest. $EARN_t$ shows high correlation with CEO_TOTAL_t (p=<.0001), CEO_BASE_t (p=<.0001), and CEO_Perf_t (p=<.0001), as well as CFO_TOTAL_t (p=<.0001), CFO_BASE_t (p=<.0001), and CFO_Perf_t (p=<.0001). TA_t, likewise, shows high correlation with CEO_TOTAL_t (p=<.0001), CEO_BASE_t (p=<.0001), and CEO_Perf_t (p=<.0001), CFO_TOTAL_t (p=<.0001), CFO_BASE_t (p=<.0001), and CFO_Perf_t (p=<.0001). CEO_TOTAL_t, as expected, is highly correlated with the underlying elements of CEO total compensation, CEO_BASE_t (p=<.0001) and CEO_Perf_t (p=<.0001). CFO_TOTAL_t is similarly correlated with CFO_BASE_t (p=<.0001) and CFO_Perf_t (p=<.0001). ΔCEO_Total_t also shows the same pattern of high correlation with ΔCEO_Base_t (p=<.0001) and ΔCEO_Perf_t (p=0.0417).

RESULTS

Table 4 displays results for H1, H2, and H3. 10 different measures of $EXEC\_COMP_t$ are used for M1 – five CEO measures (CEO_TOTAL_t , CEO_BASE_t , CEO_PERF_t, CEO_Bonus_t, and CEO_Ret_t) and five CFO measures (CFO_TOTAL_t , CFO_BASE_t , CFO_PERF_t, CFO_Bonus_t, and CFO_Ret_t). H1 is tested by alternately using CEO_TOTAL_t and CFO_TOTAL_t as the dependent variable measure of $EXEC\_COMP_t$. Results indicate that earnings, $EARN_t$, has a positive and significant relation with CEO_TOTAL_t (t=2.03, p=.0433). Results from the CFO sample show that $EARN_t$ does not have a significant relation with CFO_TOTAL_t (t=1.34, p=.1807). These mixed results lead to a partial rejection of H1.

H2 and H3 test whether different elements of NPHC executive total compensation are related to earnings. Executive salaries are split into base compensation (CEO_BASE_t and CFO_BASE_t) which is expected to have a lower association with financial performance and salary elements (CEO_PERF_t and CFO_PERF_t) expected to be more highly associated with financial performance. H2 is tested by alternating CEO_BASE_t and CFO_BASE_t as the dependent variable measures of $EXEC\_COMP_t$. Results indicate that $EARN_t$ has a marginal negative relation with CEO_BASE_t (t=-1.80, p=.0725) and a statistically insignificant, negative relation with CFO_BASE_t (t=-0.24, p=.8141). These results lead to the failure to reject H2.

Results for H3 indicate that $EARN_t$ has a highly significant positive relation with both CEO_PERF_t (t=3.65, p=.0003) and with CFO_PERF_t (t=2.44, p=.0151). This leads to the rejection of H3 that no relation exists between earnings and the elements of compensation expected to be more associated with performance. I also present results for the underlying components of CEO_PERF_t (CEO_Bonus_t and CEO_Ret_t) and CFO_PERF_t (CFO_Bonus_t and CFO_Ret_t). Results for the performance compensation components show that $EARN_t$ is has a significant association with both of the CEO components, CEO_Bonus_t (t=2.56, p=.0083) and CEO_Ret_t (t=2.82, p=.0050), and with both of the CFO components, CFO_Bonus_t (t=3.16, p=.0017) and CFO_Ret_t(t=3.24, p=.0013).

Hypothesis 4 tests whether high levels are earnings are associated with higher NPHC executive compensation. The samples of CEO compensation observations and CFO compensation observations are divided into deciles in order to create an indicator variable, $High_t$. The indicator variable takes on the value of 1 for all observations in the highest earnings

decile. I then interact $High_t$ with $EARN_t$ to estimate the incremental effect of higher earnings on performance compensation for the CEO and CFO samples using M2. Results are presented in table 5. $EARN_t$ again, shows a positive significant association with CEO_PERF_t (t=2.39, p=.0173) and with CFO_PERF_t (t=2.21, p=.0280). The interaction variable, $High_t * EARN_t$, captures the incremental effect of earnings on performance compensation. Results show significant associations with both CEO_Perf_t (t=2.07, p=.0393) and CFO_PERF_t (t=2.51, p=.0125). Results lead to the rejection of H4 and provide some evidence that NPHC executives may be willing to report higher earnings despite regulatory constraints because those higher earnings are associated with increased performance compensation.

H5, H6, and H7 deal with changes in compensation rather than compensation levels. To mitigate the effect of volatility in compensation changes, I restrict the percent change to be +/- 66.7 percent. That restriction combined with observations losses associated with a change variable calculation, reduces my sample to 243 for ΔCEO_Total_t, 267 for ΔCEO_Base_t, and 213 for ΔCEO_Perf_t. M3 also replaces $EARN_t$ with $\Delta EARN_t$. Results, presented in table 6, are similar to results for dependent variables based on compensation levels. $\Delta EARN_t$ shows a marginally significant association with ΔCEO_Total_t (t=1.75, p=.0812), no significant association with ΔCEO_Base_t (t=-0.87, p=.3840), and a significant association with ΔCEO_Perf_t (t=2.13, p=.0346). These results lead me to reject H5 and H7 and to fail to reject H6.

CONCLUSIONS

While prior literature has documented an association between earnings and hospital CEO compensation, recent decades have seen significant changes in the hospital industry that have led to concentration in the industry giving rise to NPHCs much larger than those previously examined. This study examines the relationship between multiple components of NPHC executive compensation and reported earnings using a sample of 504 firm-year observations from 97 large NPHC healthcare organizations gathered from IRS 990 filings between 2011-2019. I first examine the association between NPHC executive compensation and earnings and find results for CEO compensation consistent prior literature. I then extend prior literature by documenting that the association between earnings and NPHC executive total compensation is driven by elements of compensation more likely to be related to performance - bonus and retirement compensation. I also find that NPHC executive base compensation is marginally related to earnings at best and is most often not related to earnings. I extend these tests by also examining the association between change in CEO compensation and change in earnings. I find a similar pattern in the change analysis as in the levels analysis where change in CEO total compensation has only a marginal relation with change in earnings, but the underlying change in CEO performance compensation has a strong signification relation with change in earnings.

I also add to the literature by investigating the relation between NPHC performance compensation and earnings for high earning NPHCs. Results indicate that NPHC firms with high levels of earnings display a significantly stronger relation between reported earnings and those performance-aligned elements of NPHC executive compensation. This finding helps to explain why these nonprofit managers would be willing to report high earnings despite the risk of attracting attention from regulators and those who would question the tax-free status of high earning NPHCs.

Finally, prior literature argues that nonprofit boards are likely to be weak in compensation oversight with regards to earnings because there is an expectation that there will be little earnings to distribute to managers and no shareholders to contest the distribution of earnings. This sample of NPHCs does not appear to be like other nonprofit organizations in that this sample consists of firms that consistently produce sizable positive earnings. Given these differences, it is an open question as to how NPHC boards will respond. I find evidence that increasing numbers of independent board members act to reduce increases in NPHC executive compensation.

Whether NPHCs are similar to other nonprofit organizations is a strong topic of interest among regulators and legislative bodies. This study adds to the prior literature by documenting that NPHCs display an association between executive compensation and earnings (change in earnings), specifically between earnings and the elements of executive compensation most likely to be aligned with performance. This suggest NPHC organizations are incentivizing executives to seek higher levels of profitability. These results should be of interest to a range of groups including regulators, legislators, the patients and taxpayers who ultimately pay for NPHC services, and researchers examining nonprofit behaviors.

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Table 1 - Sample

	Full Sample	CEO Sample	CFO Sample
Total Observations	504	504	504
Observations missing compensation data	--	75	105
Remaining Observations	504	429	399
Number of Firms	97		

Table 2 - Descriptive Statistics

	Mean	Median	Standard Deviation
$EARN_t$	$156,957,152	$129,209,151	$263,324,427
$\Delta EARN_t$	.45234	.03803	2.39634
TA_t	$4,035,773,968	$3,098,640,902	$3,316,902,344
Rev_t	$2,628,793,570	$2,020,366,342	$1,704,932,731
IVM_t	31	16	47
$Employ_t$	15,767	12,547	10,473
CEO_Total_t	$3,242,567	$2,506,297	$2,512,400
CEO_Base_t	$1,276,391	$1,186,873	$546,312
CEO_Bonus_t	$952,809	$634,969	$1,014,810
CEO_Ret_t	$463,160	$180,300	$748,784
ΔCEO_Total_t	.12917	.07618	.63048
ΔCEO_Base_t	.02878	.03960	.21962
ΔCEO_Perf_t	.41969	.06727	3.06538
CFO_Total_t	$1,272,279	$1,102,422	$635,639
CFO_Base_t	$662,129	$627,547	$211,120
CFO_Bonus_t	$308,239	$220,182	$78,134
CFO_Ret_t	$139,150	$78,134	$180,532

Where:

$EARN_t$ = Reported total revenue minus total expenses
$\Delta EARN_t$ = Change in reported earnings measured as ($EARN_t$ - $EARN_{t-1}$) / $EARN_{t-1}$
TA_t = Total assets for year t
Rev_t = Total revenue for year t
IVM_t = Number of independent voting members for year t
$Employ_t$ = Number of employees for year t
CEO/CFO_Total_t = CEO/CFO total compensation for year t
CEO/CFO_Base_t = CEO/CFO base compensation for year t
CEO/CFO_Bonus_t = CEO/CFO bonus compensation for year t
CEO/CFO_Ret_t = CEO/CFO retirement compensation for year t
ΔCEO_Total_t = Percent change in CEO total compensation for year t, measured as (CEO_Total_t - CEO_Total_{t-1}) / CEO_Total_{t-1}
ΔCEO_Base_t = Percent change in CEO base compensation for year t, measured as (CEO_Base_t - CEO_Base_{t-1}) / CEO_Base_{t-1}
ΔCEO_Perf_t = Change in CEO performance compensation (Bonus + Retirement) for year t, measured as (CEO_Perf_t - CEO_Perf_{t-1}) / CEO_Perf_{t-1}

Table 3 – Pearson Correlations

	$EARN_t$	$\Delta EARN_t$	TA_t	CEO_Total	CEO_Base_t	CEO_Perf_t	ΔCEO_Total	ΔCEO_Base	ΔCEO_Perf_t
$EARN_t$	1.000	0.12485	-0.11445	-0.45661	-.053640	-0.40445	-0.03605	-0.09169	-.0.02436
		0.0120	0.0101	<.0001	<.0001	<.0001	0.4744	0.0691	0.6302
$\Delta EARN_t$		1.00000	-0.04670	-0.02040	-0.05295	-0.03730	0.04672	-0.16999	0.00901
			0.3491	0.6989	0.3158	0.4799	0.4056	0.0024	0.8732
TA_t			1.00000	-0.34513	-0.42565	-0.25884	0.04205	0.14936	0.00561
				<.0001	<.0001	<.0001	0.4040	0.0030	0.9117
CEO_Total_t				1.00000	0.83627	0.86883	0.33495	0.03811	0.00036
					<.0001	<.0001	<.0001	0.4507	0.9940
CEO_Base_t					1.00000	0.72643	0.01959	0.05626	0.02233
						<.0001	0.6978	0.2653	0.6589
CEO_Perf_t						1.00000	0.13486	0.07420	0.05227
							0.0073	0.1415	0.3013
ΔCEO_Total							1.00000	0.32331	0.10280
								<.0001	0.0417
ΔCEO_Base_t								1.00000	0.08465
									0.0938
ΔCEO_Perf_t									1.00000

	$EARN_t$	$\Delta EARN_t$	TA_t	CFO_Total_t	CFO_Base_t	CFO_Perf_t
$EARN_t$	1.00000	0.12485	-0.11445	-0.51619	-0.48164	-0.41111
		0.0120	0.0101	<.0001	<.0001	<.0001
$\Delta EARN_t$		1.00000	-0.04670	-0.05858	-0.04106	-0.08994
			0.3491	0.2829	0.4518	0.0988
TA_t			1.00000	-0.38135	-0.48375	-0.31851
				<.0001	<.0001	<.0001
CFO_Total_t				1.00000	0.94745	0.89516
					<.0001	<.0001
CFO_Base_t					1.00000	0.80473
						<.0001
CFO_Perf_t						1.00000

Earnings and Executive Compensation

Table 4 – Regression of compensation measures on earnings and control variables

	β_0	$EARN_t$	IVM_t	$EMPL_t$	$\log(TA_t)$	$YEAR_t$	n	$AdjR^2$
CEO_Total_t	0.01503	0.00159	-0.00001	0.00001	-0.00066	0.0002		
	11.98***	2.03**	-1.03	3.90***	-11.19***	1.30		
	<.0001	0.0433	0.3021	0.0001	<.0001	0.1957	429	0.2738
CEO_Base_t	0.00870	-0.00030	0.00001	0.00001	-0.00038	0.00001		
	32.60***	-1.80*	0.79	5.76***	-30.61***	3.77***		
	<.0001	0.0725	0.4280	<.0001	<.0001	0.0002	429	0.7514
CEO_Bonus_t	0.00378	0.00075	-0.00001	0.00001	-0.00017	0.00001		
	8.35***	2.65***	-1.75*	4.86***	-7.92***	1.41		
	<.0001	0.0083	0.0813	<.0001	<.0001	0.1594	429	0.1529
CEO_Ret_t	0.00152	0.00086	-0.00001	0.00001	-0.00007	0.00001		
	3.14***	2.82***	-2.36**	2.04**	-3.01***	1.09		
	0.0018	0.0050	0.0185	0.0422	0.0028	0.2761	429	0.0491
CEO_Perf_t	0.00530	0.00161	-0.00001	0.00001	-0.00024	0.00002		
	7.53***	3.65***	-2.75***	4.53***	-7.16***	1.66*		
	<.0001	0.0003	0.0062	<.0001	<.0001	0.0982	429	0.1557
CFO_Total_t	0.00656	0.00036	-0.00001	0.00001	-0.00029	0.00001		
	16.16***	1.34	-0.56	3.59***	-15.04***	0.56		
	<.0001	0.1807	0.5767	0.0004	<.0001	0.5733	399	0.4413
CFO_Base_t	0.00441	-0.00002	0.00001	0.00002	-0.00019	0.00001		
	27.55***	-0.24	1.16	4.35***	-25.89***	1.94**		
	<.0001	0.8141	0.2466	<.0001	<.0001	0.0525	399	0.7068
CFO_Bonus_t	0.00115	0.00033	-0.00001	0.00001	-0.00005	0.00001		
	7.29***	3.16***	-1.77*	3.94***	-6.88***	0.69		
	<.0001	0.0017	0.0773	<.0001	<.0001	0.4879	399	0.1430
CFO_Ret_t	0.00183	0.00122	-0.00001	0.00001	-0.00008	0.00001		
	3.31***	3.24***	-2.41**	1.88*	-3.22***	1.06		
	0.0010	0.0013	0.0166	0.0613	0.0014	0.2918	399	0.0681
CFO_Perf_t	0.00181	0.00035	-0.00001	0.00001	-0.00008	0.00001		
	8.28***	2.44**	-2.09**	3.96***	-7.83***	1.19		
	<.0001	0.0151	0.0376	<.0001	<.0001	0.2355	399	0.1671

Table 5 - Performance compensation regression including high earner indicator

	CEO_Perf_t	CFO_Perf_t
β_0	0.00034	0.00045
	0.44	1.84*
	0.6622	0.0664
$EARN_t$	0.00139	0.00038
	2.39**	2.21**
	0.0173	0.0280
$High_t$	0.00018	-0.00024
	-2.09**	-2.82***
	0.0369	0.0050
$High_t * Earn_t$	0.00311	0.00187
	2.07**	2.51**
	0.0393	0.0125
IVM_t	-0.00001	-0.00001
	-3.00***	-1.97**
	0.0029	0.0495
$EMPL_t$	51.0903	13.9973
	5.15***	4.59***
	<.0001	<.0001
$\log(TA_t)$	-0.00001	-0.00001
	-0.35	-1.70*
	0.7252	0.0899
$YEAR_t$	0.00001	0.00001
	1.16	0.73
	0.2483	0.4670
n	429	399
$AdjR^2$	0.1747	0.2011

Table 6 - Regression of change in CEO compensation on change in earnings

	β_0	$\Delta EARN_t$	IVM_t	$EMPL_t$	$log(TA_t)$	$YEAR_t$	n	$AdjR^2$
ΔCEO_Total_t	0.07695	0.05427	-0.00005	0.00001	0.00417	-0.01772		
	0.12	1.75*	-0.12	0.51	0.14	-1.64	243	0.0039
	0.9027	0.08116	0.9031	0.6090	0.8884	0.1021		
ΔCEO_Base_t	-0.01382	-0.00933	0.00018	-0.00001	0.00418	-0.00160		
	-0.06	-0.87	1.42	-0.51	0.40	-0.43	267	-0.0075
	0.9501	0.3840	0.1582	0.6113	0.6879	0.6667		
ΔCEO_Perf_t	0.08681	0.07382	-0.00121	0.00001	0.00506	-0.02099		
	0.13	2.13**	-2.64**	0.41	0.16	-1.73*	213	0.0367
	0.9001	0.0346	-.0090	0.6808	0.8764	0.0846		