# Friends in High Places: Measuring the Effects of Compensation Committee Characteristics on CEO Pay Packages in 2013 

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# CLAREMONT MCKENNA COLLEGE 

# Friends in High Places: Measuring the Effects of Compensation Committee Characteristics on CEO Pay Packages in 2013 

## SUBMITTED TO

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AND<br>DEAN NICHOLAS WARNER BY<br>Danielle Knott

for

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#### Abstract

In the past decade, public scrutiny surrounding rising levels of executive compensation has led to more stringent independence requirements for compensation committees. However, there is little research studying the effects of compensation committees on executive pay from the time these new requirements were implemented. My paper studies the effects of compensation committee chair personal ties to the CEO, economic interests, and group committee characteristics on both the level and structure of CEO compensation. My findings suggest that certain committee chair personal ties to the CEO are associated with both a higher level of CEO compensation and a higher percentage of CEO salary compensation. I also find that the more compensation committee chairs are paid, the less likely they are to create CEO pay plans with strong incentive provisions, but the more likely they are to increase the level of total CEO compensation. The higher the committee chair's ownership percentage is in the company, the less likely they are to create low-risk CEO pay plans, and the more likely they are to increase the level of total CEO compensation.


## I. Introduction

There is extensive research surrounding the level and structure of CEO compensation, but not much of it focuses on the effects of compensation committee characteristics on executive pay. This research has been limited in the last ten years, during which new regulations were implemented with the goal of increasing compensation committee independence.

Compensation committees play an integral role in the executive pay-setting process, acting on behalf of shareholders to structure and approve of CEO compensation (Murphy, 1999). Ideally, compensation contracts would be structured to create incentives for the CEO to act in the best interests of the company and its shareholders (Tosi, Gomez-Mejia; 1989). Setting CEO pay is typically viewed from a principal-agent perspective in which the CEO (agent) acts on behalf of the shareholders (principal). The presence of compensation committees adds a new dimension to the principal-agent model because they are intended to represent the principal, but may have personal and/or economic interests of their own (Conyon and $\mathrm{He}, 2004$ ). These interests may come in the form of a friendship with the CEO, or even as increased compensation for serving on the board. If they have an incentive to structure CEO compensation in a certain way, they may not always act on behalf of shareholders.

Compensation committee independence requirements have become stricter over the past ten years due to new regulations in response to recent accounting scandals and the public's heightened sensitivity to rising executive pay in a time of national financial distress. The purpose of this paper is to use data from 2013 to consider recent regulatory
changes and to observe the effects of close personal ties to the CEO, economic incentives to act in favor of the CEO, and general committee characteristics on the level and structure (percentage of contingent versus non-contingent pay) of CEO compensation. While these strict regulations are in place to ensure that compensation committees are unbiased, it is important to consider the costs that come with implementing them. If they have been ineffective at changing the pay-setting environment, there are important considerations for the future.

I run two separate cross-sectional regressions using data from fiscal year 2013 to measure effects on the percentage of CEO compensation that is a fixed salary and on the total level of CEO compensation. My findings suggest that certain committee chair personal ties to the CEO are associated with both a higher level of CEO compensation and a higher percentage of CEO salary compensation. I also find that the more compensation committee chairs are paid, the less likely they are to create CEO pay plans with strong incentive provisions, but the more likely they are to increase the level of total CEO compensation. The higher the committee chair's ownership stake in the company, the more likely they are to increase the level of total CEO compensation.

This paper proceeds as follows. Part II discusses the regulations governing compensation committee independence passed in the last decade. Part III is a review of relevant literature in this subject area and provides a motivation for my research. Part IV states my hypotheses regarding three categories of independent variables. Part V discusses my data and methodology. Part VI contains my regression results and analysis, and Part VII is my concluding remarks and suggested areas for further research.

## II. Background and Regulatory Changes

In theory, shareholders are responsible for board member elections. In practice, the nomination process is run by the board of directors where the CEO has a significant influence, and the shareholder election is seen as more of a formality especially since there is often only one nominee for the position (Hoffman, 1984). This often leads to board members hand selected by the CEO, and it is often the case that "the CEO and front-runner get along best when they share a personal chemistry and common background" (Lublin, 2014).

While the compensation committee is not a perfect representative of shareholder interests (Baker, Jensen and Murphy, 1988), independence requirements are in place to ensure that the level and structure of CEO compensation both reflect company goals and benefit shareholders. The public has increasingly scrutinized executive compensation levels in recent years (Morris, Martini and Jaskot, 2012), and the SEC has responded with new regulations to eliminate the possibility of unfair practices between directors and management and to require them to disclose more detailed information in their proxy statements.

In 2003, the NYSE and Nasdaq adopted new rules regarding compensation committee independence, requiring the committee to be entirely independent (NYSE) or that executive compensation be approved by a majority of independent directors if the compensation committee is not already solely comprised of independent directors (Nasdaq) (Morris, Martini and Jaskot, 2012). Past studies have examined the effects of having insiders on the committee, however, this regulation has forced most compensation
committees to consist entirely of independent board members. The vast majority of companies now include a section on Compensation Committee Interlocks and Insider Participation in their proxy statements in which they state that no member of the compensation committee was an employee during the fiscal year. If this section is not included in the proxy statement, they address the new independence guidelines in the Director Independence section, stating that they abide by the new guidelines.

The 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (DoddFrank) contains several new considerations surrounding compensation committee member independence. In January 2011, the SEC adopted the "Say on Pay" requirements in Section 951 of the Dodd-Frank Act, which require companies to hold a shareholder vote at least once every three years on their approval or disapproval of executive compensation and "golden parachute" arrangements. The outcome of these votes is nonbinding, but companies must report the results in their annual proxy statements ("SEC Adopts Rules for Say-on-Pay and Golden Parachute Compensation as Required Under Dodd-Frank Act", 2011). This could impact the way compensation committees structure CEO pay because while the votes are not binding, a publicly unpopular CEO compensation plan could damage a company's reputation.

In June 2012 the SEC adopted new rule 10C-1 of the Securities and Exchange Act of 1934. This rule includes requirements regarding compensation committee member independence and the use of compensation consultants and related disclosures (Lynn, Bard, and Kahan 2013). New considerations under this rule include "(A) a director's source of compensation, including any consulting, advisory or other compensatory fee paid by the issuer to such director, and (B) whether a director is affiliated with the issuer,
a subsidiary of the issuer, or an affiliate of a subsidiary of the issuer" (Adler, 2012). These requirements are in place further to monitor the pay-setting process from a regulatory standpoint. Because independence requirements have become stricter over the years, and especially since the bulk of research has been performed on older data, my study will be useful as a first effort to evaluate the impact of recent regulatory changes on the independence of compensation committee members and how they construct CEO pay.

## III. Literature Review

Prior research on the effects of compensation committees on CEO pay has been inconclusive as a whole. Past studies tend to focus on a narrow set of independent variables with conflicting results when compared to similar studies. The most recent paper I could find uses data from 1992 to 2001, well before recent independence requirements were implemented.

Daily, Johnson, Ellstrand, and Dalton (1998) conducted an earlier study focusing on the effects of the compensation committee on executive pay. They examined the effects on pay associated with the proportion of insiders on the committee, whether the directors were appointed while the current CEO was in office, and whether the director was a current CEO of another company. They studied the levels of non-contingent pay, contingent pay, and total compensation. They find these characteristics have no significant effect on CEO compensation, which suggests that the level of director independence does not unfairly favor the CEO (Daily et al., 1998). While my paper includes similar independent variables, I use the percentage of CEO compensation that is
a fixed salary as one of my dependent variables rather than the levels of compensation alone to study the effects on the structure of CEO pay packages.

Andersen and Bizjak (2003) studied whether greater compensation committee independence affects CEO pay, whether the CEO on the committee leads to a more beneficial pay structure, and whether CEO pay contained a larger proportion of equity incentives after 1993. The congressional tax code in 1993 specified that compensation committees must have at least two outside directors, otherwise contingent executive pay over $\$ 1$ million would not be tax deductible. Similar to other studies, they find little evidence that CEO pay mix is affected by insiders on the committee-even committees with a high proportion of insiders had significant equity based compensation. They also find no relationship between higher pay and a lower proportion of equity incentives when the CEO was present on the compensation committee. Last, they discovered that the regulations in 1993 had little effect on the structure of CEO compensation. Their paper examined companies through 1998. New regulations regarding independence have been passed in 2003 and again in 2011 and 2012, providing motivation for my paper, which will observe whether they have affected CEO compensation in 2013.

There have also been studies examining the effects of social similarities between the CEO and the compensation committee chair on CEO compensation. Belliveau, O'Reilly, and Wade (1996) examined social capital similarity between the CEO and the compensation committee chair, and the effects on CEO pay. They point out that the payperformance relationship has only weak evidence to support it based on past studies, and that it is important to investigate the extent to which social factors affect CEO pay. They
measure social capital in terms of "amount and prestige of social resources" and find that similarity does affect CEO compensation. They measured social capital in terms of social similarity and status by identifying overlaps in the backgrounds of the CEO and the committee chair. Some of these measures included whether they worked at the same firm, attended the same undergraduate or graduate institution, and the number of shared Fortune 500 board memberships. To measure status they looked at the number of board memberships, trusteeships, social club memberships, and the prestige of their undergraduate institution. They find that in situations containing lower-status compensation committee chairs and in relationships in which the CEO is of a higher status than their compensation committee chair, the CEO receives higher compensation (Belliveau, O’Reilly and Wade 1996). While my paper does not include detailed measures of social capital, I include variables to measure possible committee chair ties to the CEO such as whether the chair was appointed by the current CEO, whether the chair is or was a CEO, whether they are the same gender, and their age difference.

A more recent article relevant to my study is by Conyon and He (2004). They use a sample of IPO firms to examine the relationship between compensation committee characteristics, CEO compensation, and the proportion of CEO incentives. They approached the study through the "three-tier agency theory" which states that if the compensation committee's interests are more closely aligned with the shareholder's, they will act in the best interests of the shareholders. If their interests are more closely aligned with management, they will act in the interests of the CEO. The primary variables they looked at were compensation committee members' ownership stake in the firm, cash fees received by the compensation committee, insiders on the compensation committee, and
the proportion of directors who were currently CEOs at other firms. They find that a higher director ownership stake in a company is associated with a higher proportion of equity incentives and a lower level of CEO pay. Conversely, they find that the more compensation committee members are paid, the lower the proportion of equity incentives and the higher the CEO pay. Similar to the previous studies, they find no relationship between CEO pay and insiders on the compensation committee (Conyon and He , 2004). These results suggest that economic incentives have a significant effect on how CEO pay is structured. In my paper I use fixed salary as a percentage of total CEO compensation as one of my independent variables rather than the proportion of equity incentives. In theory, compensation committees with an incentive to act in the CEO's interests will raise fixed salary in relation to contingent pay to provide the CEO with a less risky stream of income.

Brick, Palmon, and Wald (2006) also study CEO and director compensation and find a strong positive relationship between the two. They suggest this could indicate "mutual back scratching or cronyism." Their data covers the time from 1992 to 2001, before the major recent independence requirements were passed. While I also study director compensation and CEO compensation, my data only focuses on the compensation committee chair. My study also uses newer data to capture the effects of recent regulatory changes.

My study enhances the previous literature by using similar independent variables as previous studies, but combining those that capture both personal and economic incentives of the compensation committee chair and group dynamics of the committee to
gain a more wholesome understanding of what factors drive compensation committees to structure CEO compensation in a certain way. My paper also uses data from 2013, providing more recent information. Brick, Palmon, and Wald's (2006) data covered the time between 1992 and 2001, and there have been many regulatory changes that directly affect the responsibilities of the compensation committee since then. I test the hypothesis that because of the extensive independence requirements that exist, personal and economic incentives of compensation committee chairs no longer affect compensation structure, suggesting that the pay-setting process has become more impartial.

## IV. Hypotheses

According to agency theory, independent board members result in more effectively functioning committees (Daily et. al, 1999). There are certain factors, however, that could jeopardize this independence and influence the compensation committee to construct pay packages based on CEO interests. My hypotheses are formed around the concept that if the compensation committee's interests are more aligned with the CEO, they are likely to set higher levels of compensation with lower levels of risk. If their interests are more aligned with shareholders, they are likely to set lower levels of total compensation with higher levels of risk. A higher percentage of CEO compensation that is a fixed salary suggests a lower-risk pay package because the fixed salary is a determinable and reliable amount. My independent variables are split into three different categories and include compensation committee chair demographics and personal ties to the CEO, their economic interests, and group characteristics of the committee.

The first group of independent variables measures a committee chair's demographics and personal ties to the CEO using director age, gender, whether the director and the CEO are the same gender, the age difference between the director and the CEO, whether they were appointed by the current CEO, years serving as a director of the company, whether they were or currently serve as a CEO of another company, and whether the CEO is on the board of the company.

Daily, Johnson, Ellstrand, and Dalton (1998) study the effects of whether the CEO appointed the director. They explain that not only do CEOs tend to choose directors who will be "sympathetic to their viewpoints," but also that directors appointed by the CEO could feel indebted to them for giving them the position. Also, because CEOs have an influence in the nomination process, they are more likely to pick directors with whom they have had a previous relationship. I include a variable measuring whether the CEO is a member of the board, because in this case they are more likely to have personal relationships with board members.

Daily, Johnson, Ellstrand, and Dalton (1998) also study the variable of whether the director was or is a CEO of another company. They explain that CEOs tend to share similarities with one another, including prestige in the business world. Because they can relate to the CEO they could be more likely to create pay packages that align with their own preferences rather than with those of shareholders. I include variables measuring demographic similarities between the compensation committee chair and the CEO because people who are similar demographically tend to be more sympathetic to one another.

Hypothesis 1: Greater director social/demographic similarities and personal ties to the CEO will result in a compensation package with a higher percentage of salary compensation and a higher level of total compensation.

The second category of independent variables looks at the committee chair's economic interests: Director cash fees, director total compensation, and director ownership stake in the firm. If the compensation committee chair receives a higher amount of compensation from the company, they could be more likely to create a pay package that is aligned with the CEO's interests (Conyon and He, 2004). This could be because the director feels obligated to return the favor, or it could indicate a mutual agreement between the director and the CEO.

High equity holdings align compensation committee chair interests with those of shareholders because their personal wealth is affected by the company's performance, giving them an incentive to do what they can to increase firm value (Conyon and He , 2004). So, if they have a higher ownership stake in the company, they could be more likely to structure pay packages with more equity incentives and therefore a smaller fixed salary percentage. A higher percentage of equity incentives would theoretically motivate the CEO to perform well since it is not a fixed stream of income.

Hypothesis 2: Higher director compensation will result in a higher percentage of salary compensation and a higher level of total compensation.

Hypothesis 3: Higher director ownership stake in the firm will result in a lower percentage of salary compensation and a lower level of total compensation.

Compared to the other two groups of independent variables, economic interests of compensation committee members are likely to have a greater influence on their paysetting decisions. This is because aligning compensation decisions with CEO interests based on a personal relationship or demographic similarity does not necessarily lead to a future reward. People respond to incentives, and a higher level of compensation is a directly measurable financial reward.

Hypothesis 4: Economic incentives will have a more significant effect on the structure and level of CEO compensation than demographic similarity/personal relationship variables or group dynamics variables.

The third category looks at compensation committee group dynamics using the size of the committee and the number of meetings held during the year. Previous research has been inconclusive about the effect of committee size on CEO compensation. Some argue that large groups are less likely to be cohesive and make sound decisions, and that board members can be manipulated more easily (Daily et al. 1999). Fewer meetings could indicate readily accepting a pay package proposal rather than deliberating over a fair pay structure, leading to compensation more aligned with CEO interests.

Hypothesis 5: The smaller the committee and the greater the number of meetings held during the year, the lower the percentage of salary compensation, and the lower the level of total compensation.

## V. Methodology and Data

In this paper I will test my hypotheses by running two separate cross-sectional regressions using my primary independent variables and a set of control variables. All data is from fiscal year 2013.

## Equation 1:

I use the following regression equation for firm i to measure the effects of my independent variables on the percentage of CEO compensation that is a fixed salary, denoted as "SalaryPercentage." "Demographic/PersonalTies" represents the first group of independent variables, "EconomicInterests" represents the second group of independent variables (using the natural log of director cash compensation and director total compensation instead of the absolute levels), and "GroupDynamics" represents the third group of independent variables as described in Section IV. The last six variables are controls measuring CEO gender, tenure, and age; the natural log of total assets; return on assets; and industry dummies.

SalaryPercentage $_{i}=\beta_{1}$ Demographic $^{\text {PersonalTies }}{ }_{i}+\beta_{2}$ EconomicInterests $_{i}+$ $\beta_{3}$ GroupDynamics $_{i}+\beta_{4}$ MaleCEO $_{i}+\beta_{5}$ CEOTenure $_{i}+\beta_{6}$ CEOAge $_{i}+\beta_{7} \operatorname{Ln}(\text { TotalAssets })_{i}$ $+\beta_{6} \mathrm{ROA}_{\mathrm{i}}+\beta_{7}$ IndustryDummies $_{\mathrm{i}}$

The percentage of CEO compensation that is a fixed salary is calculated as CEO Salary/Total CEO Compensation. CEO Salary and Total CEO Compensation are from the ExecuComp Annual Compensation dataset. Total CEO Compensation is called "TDC1" within the database and is the sum of salary, bonus, other annual compensation, total

Table I
Summary Statistics-Continuous Variables

| Variable | Mean | Median | Standard <br> Deviation | Min | Max |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Independent Variables |  |  |  |  |  |
| Years Serving as Director | 10.09 | 9 | 6.46 | 0 | 44 |
| Director Age | 64.06 | 65 | 7.48 | 35 | 84 |
| Absolute Value of Age Difference | 9.63 | 9 | 6.52 | 0 | 31 |
| Director Cash Fees |  |  |  |  |  |
| Director Total Compensation <br> (in 1000s) | 206.02 | 211.92 | 80.09 | 0 | 495.12 |
| Director Ownership Percentage | $0.0987 \%$ | $0.0432 \%$ | $.870 \%$ | 0 | $13.4 \%$ |
| Committee Size | 4.12 | 4 | 1.13 | 2 | 10 |
| Meetings | 5.88 | 6 | 2.17 | 1 | 13 |
| Dependent Variables |  |  |  |  |  |
| CEO Total Compensation | $6,674.93$ | $4,811.40$ | $6,082.73$ | 18.00 | $37,186.1$ |
| (in 1000s) | 0.216 | 0.166 | 0.162 | 0 | 1 |
| CEO Salary/CEO Total Compensation | 7.21 | 5 | 6.56 | 0 | 42 |
| Control Variables | 56.67 | 56 | 6.88 | 40 | 86 |
| Years Serving as CEO | 8.35 | 8.28 | 1.64 | 3.73 | 12.60 |
| CEO Age | 0.0452 | 0.0494 | 0.100 | -1.14 | 0.248 |

## Summary Statistics-Binary Variables

| Variable | Percentage of Data |
| :--- | :---: |
| Independent Variables |  |
| Male Director | $83.7 \%$ |
| Same Gender | $82.7 \%$ |
| Director was/is a CEO | $62.5 \%$ |
| CEO is a Director | $98.1 \%$ |
| Director Appointed by CEO | $38.8 \%$ |
| Control Variables |  |
| Male CEO | $97.1 \%$ |

value of restricted stock granted, total value of stock options granted (using the BlackScholes option formula, (Black and Scholes, 1973)), long-term incentive payouts, and all other total compensation. The motivation behind using this variable is that a higher proportion of compensation that is a fixed salary is less risky to the CEO because it is a reliable amount of compensation they will receive at the end of the year. Other components of pay are based on company performance and whether certain goals are
met. So, if a compensation committee chair has incentive to act in favor of the CEO, they could raise the CEO's fixed salary in relation to other forms of compensation to help put them in a more secure and predictable financial position.

## Equation 2:

The following regression equation is identical to the first, but the left hand side variable is the natural $\log$ of total CEO compensation ("TDC1 as described above), denoted as "Ln(TotalCompensation)."
$\operatorname{Ln}(\text { TotalCompensation })_{i}=\beta_{1}$ Demographic PersonalTies $_{i}+\beta_{2}$ EconomicInterests $_{i}+$ $\beta_{3}$ GroupDynamics $_{i}+\beta_{4}$ MaleCEO $_{i}+\beta_{5}$ CEOTenure $_{i}+\beta_{6}$ CEOAge $_{i}+\beta_{7} \operatorname{Ln}$ (TotalAssets $_{i}$ $+\beta_{6} \mathrm{ROA}_{\mathrm{i}}+\beta_{7}$ IndustryDummies $_{\mathrm{i}}$

The motivation for using total compensation as the dependent variable is to evaluate the effects of possible personal and/or economic director ties to the CEO from a different angle. The first dependent variable I study focuses on the structure of CEO compensation while this one focuses on the amount of compensation.

I collected my data from ExecuComp, COMPUSTAT, and company proxy statements. Within ExecuComp, I used the Annual Compensation database to form a sample frame of the companies for which I would collect additional data. This data included all of the variables measuring CEO compensation, age, gender, and whether the CEO was a member of the board of directors. I eliminated all observations except for those with a currently listed CEO, leaving 638 companies for 2013 . I then sorted the data based on the percentage of the CEO's total compensation that was a fixed salary, ending
up with 312 observations. I deleted some observations because their proxy statements did not provide sufficient data.

I obtained information on committee chair compensation from the Director Compensation database within ExecuComp and matched up the observations by company. This database contained variables measuring the amount of director compensation. I then collected additional information from each company's 2013 proxy statement in the DEF14-A filings on the SEC website. These variables included: committee chair age, gender, years serving as a director, whether they were/are a CEO, ownership stake in the company, compensation committee size, and number of compensation committee meetings held during the fiscal year.

In Table I, "Years Serving as Director" is the number of years the committee chair has served as a director of the company. "Director Age" is the age of the committee chair in years. "Absolute Value of Age Difference" is the absolute value of the age difference between the committee chair and the CEO. "Director Total Compensation" is the total compensation received by the committee chair from the company in 2013 in thousands of dollars. "Director Ownership Percentage" is committee chair beneficial ownership as a percentage of total company shares outstanding. "Committee size" is the number of members of the compensation committee. "Meetings" is the number of meetings the compensation committee held during 2013. "CEO Total Compensation" is total CEO compensation received in 2013 in thousands of dollars. "CEO Salary/CEO Total Compensation" is the percentage of CEO compensation that is a fixed salary. "Years Serving as CEO" is the number of years that the current CEO has been serving.
"CEO Age" is the age of the current CEO in years. Ln(Total Assets) is the natural log of the total assets of the company during 2013. "ROA" is return on assets and was calculated by dividing Net Income/Total Assets.

The variable "Male Director" takes a value of 1 if the compensation committee chair ("committee chair") is a male, and a 0 if female. "Same Gender" takes a value of 1 if the committee chair and the CEO are the same gender, and a 0 otherwise. I ultimately dropped this variable due to multicollinearity in my regressions, but it is interesting to include in the summary statistics. "Director was/is a CEO" takes a value of 1 if the committee chair was or is currently a CEO of another company and a 0 otherwise. "CEO is a Director" takes a value of 1 if the CEO is a current director on the company board and a 0 otherwise. "Director Appointed by CEO" takes a value of 1 if the committee chair was appointed while the current CEO was already in office. "Male CEO" takes a value of 1 if the CEO is a male, and a 0 if female.

I use several control variables to account for the effects of CEO characteristics, company size, performance, and industry. I collected the firm and market information from COMPUSTAT for the companies in my data set. I control for certain CEO traits by including variables for age, gender, years serving as the CEO, and their equity stake in the firm. To measure company size I use the natural $\log$ of total assets. I initially included the number of employees and total market value, but ultimately dropped both because all three were highly correlated with one another. To measure company performance, I use Return on Assets (ROA) by dividing Net Income/Total Assets using the values for 2013. To take industry differences into account, I shortened each company's SIC code into its 2-digit identifier and created dummy variables for each 2-digit code associated with ten
or more companies in my sample. All uncategorized 2-digit codes are combined as a base case excluded dummy variable.

| 2-Digit SIC Code Descriptions |  |  |
| :---: | :---: | :---: |
| 2-digit SIC Code | Number of Occurrences | Industry Description |
| 36 | 31 | Electronic \& Other Electric Equipment |
| 60 | 30 | Depository Institutions |
| 35 | 20 | Industrial Machinery \& Equipment |
| 73 | 19 | Business Services |
| 28 | 18 | Chemical \& Allied Products |
| 49 | 17 | Electric, Gas, \& Sanitary Services |
| 37 | 15 | Transportation Equipment |
| 38 | 15 | Instruments \& Related Products |
| 20 | 13 | Food \& Kindred Products |
| 50 | 12 | Wholesale Trade - Durable Goods |

My data has a few limitations. First, ideally I would have collected data over a longer time period to capture the before and after effects of the Dodd-Frank Act in 2010. Second, I would have collected information on every company available within the ExecuComp database. However, because much of the data I used came from firm proxy statements and had to be entered manually, I restrict my attention to a smaller sample.

## VI. Regression Results and Analysis

This section presents the regression results and analysis of my study. The first regression results are displayed in Table II and use CEO salary as a percentage of total compensation as the dependent variable to measure the effects on how CEO pay packages are structured between contingent versus non-contingent pay. The second regression, with results displayed in Table III, uses total CEO compensation as the dependent variable to examine the effects on the total amount of CEO pay. Both tables display the results of four different regressions- column one focuses on economic
interest variables, column two focuses on demographic/personal relationship variables, column three focuses on group dynamic variables, and column four combines all independent variables. When discussing coefficients, I use the results displayed in column four. All four columns take all of the control variables into account.

## i. Salary as a percentage of total CEO compensation

In Table II, the dependent variable is CEO salary as a percentage of total compensation. All independent variables were insignificant to CEO salary percentage except for the CEO being a member of the board and the natural log of total director compensation.

If the CEO is one of the directors, the percent of CEO compensation in salary is higher by 9.69 percentage points on average, holding other things constant. This is significant at the $10 \%$ level with a t-statistic of 1.77 and is consistent with my hypothesis. If the CEO is on the board of directors, the CEO is more likely to develop friendships and personal relationships with other board members, including members of the compensation committee. This causality could also go the other way because when the CEO is present on the board, the CEO has a significant influence in the director nomination process and could hand pick people with whom they either share a previous connection with or who they believe will be sympathetic to their interests. Either way, this connection to the CEO could influence the compensation committee chair to set a higher percentage of salary in the CEO's pay package. There are no cases in which the CEO is on the compensation committee.

## Table II

## Effects on the Structure of CEO Compensation

This table displays the results of the regression of the percent of CEO compensation that is a fixed salary on several independent variables. ${ }^{*},{ }^{* *}$, and ${ }^{* * *}$ note significance at the $10 \%, 5 \%$, and $1 \%$ levels. T-statistics appear in parentheses. All data is from 2013.

Dependent Variable $=$ CEO Salary/CEO Total Compensation

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
| Male Director |  | $\begin{gathered} 0.00936 \\ (0.39) \end{gathered}$ |  | $\begin{gathered} 0.0103 \\ (0.50) \end{gathered}$ |
| Director was/is a CEO |  | $\begin{gathered} -0.0194 \\ (-1.01) \end{gathered}$ |  | $\begin{gathered} -0.0161 \\ (-0.97) \end{gathered}$ |
| CEO is a Director |  | $\begin{gathered} 0.0521 \\ (0.83) \end{gathered}$ |  | $\begin{gathered} 0.0969 * \\ (1.77) \end{gathered}$ |
| Years Serving as Director |  | $\begin{gathered} 0.00109 \\ (0.63) \end{gathered}$ |  | $\begin{gathered} 0.00214 \\ (1.39) \end{gathered}$ |
| Director Appointed by CEO |  | $\begin{gathered} -0.0237 \\ (-0.92) \end{gathered}$ |  | $\begin{gathered} -0.0265 \\ (-1.16) \end{gathered}$ |
| Director Age |  | $\begin{gathered} -0.000531 \\ (-0.34) \end{gathered}$ |  | $\begin{gathered} -0.000214 \\ (-0.15) \end{gathered}$ |
| Absolute Value of Age Difference |  | $\begin{gathered} 0.000740 \\ (0.38) \end{gathered}$ |  | $\begin{gathered} 0.0000618 \\ (0.04) \end{gathered}$ |
| Ln(Director Cash Fees) | $\begin{gathered} 0.0183 \\ (1.19) \end{gathered}$ |  |  | $\begin{gathered} 0.0172 \\ (1.11) \end{gathered}$ |
| Ln(Director Total Compensation) | $\begin{gathered} -0.180^{* * *} \\ (-8.41) \end{gathered}$ |  |  | $\begin{gathered} -0.187 * * * \\ (-8.53) \end{gathered}$ |
| Director Ownership Percentage | $\begin{aligned} & -1.55 \\ & (-1.12) \end{aligned}$ |  |  | $\begin{aligned} & -1.759 \\ & (-1.24) \end{aligned}$ |
| Committee Size |  |  | $\begin{gathered} 0.000586 \\ (0.07) \end{gathered}$ | $\begin{gathered} 0.00037 \\ (0.05) \end{gathered}$ |
| Meetings |  |  | $\begin{gathered} -0.00196 \\ (-0.49) \end{gathered}$ | $\begin{gathered} 0.00358 \\ (1.01) \end{gathered}$ |
| Male CEO | $\begin{gathered} 0.00624 \\ (0.14) \end{gathered}$ | $\begin{gathered} -0.0245 \\ (-0.48) \end{gathered}$ | $\begin{gathered} -0.00759 \\ (-0.15) \end{gathered}$ | $\begin{gathered} -0.0139 \\ (-0.31) \end{gathered}$ |
| CEO Tenure | $\begin{gathered} -0.000581 \\ (-0.43) \end{gathered}$ | $\begin{gathered} 0.00172 \\ (0.90) \end{gathered}$ | $\begin{gathered} 0.000895 \\ (0.59) \end{gathered}$ | $\begin{gathered} 0.000160 \\ (0.09) \end{gathered}$ |
| CEO Age | $\begin{gathered} 0.00279 * * \\ (2.21) \end{gathered}$ | $\begin{gathered} 0.00315 * \\ (1.76) \end{gathered}$ | $\begin{gathered} 0.00313 * * \\ (2.16) \end{gathered}$ | $\begin{gathered} 0.00228 \\ (1.46) \end{gathered}$ |
| Ln(Total Assets) | $\begin{gathered} 0.0279 * * * \\ (-4.68) \end{gathered}$ | $\begin{gathered} -0.0391 * * * \\ (-7.00) \end{gathered}$ | $\begin{gathered} -.0412 * * * \\ (-7.29) \end{gathered}$ | $\begin{gathered} -0.0176^{* * *} \\ (-3.18) \end{gathered}$ |
| ROA | $\begin{aligned} & -0.111 \\ & (-1.48) \end{aligned}$ | $\begin{gathered} -0.0741 \\ (-0.85) \end{gathered}$ | $\begin{gathered} -0.0623 \\ (-0.73) \end{gathered}$ | $\begin{gathered} -0.133 * \\ (-1.74) \end{gathered}$ |
| Industry Controls | Yes | Yes | Yes | Yes |
| Constant | $\begin{gathered} 1.100^{* * *} \\ (8.77) \end{gathered}$ | $\begin{gathered} 0.365 * * * \\ (2.74) \end{gathered}$ | $\begin{gathered} 0.402 * * * \\ (4.04) \end{gathered}$ | $\begin{gathered} 1.050 * * * \\ (7.28) \end{gathered}$ |
| Observations <br> Adjusted R ${ }^{2}$ | $\begin{gathered} 302 \\ 0.3559 \end{gathered}$ | $\begin{gathered} 312 \\ 0.1784 \end{gathered}$ | $\begin{gathered} 312 \\ 0.1798 \end{gathered}$ | $\begin{gathered} 302 \\ 0.3630 \end{gathered}$ |

If director total compensation increases by $10 \%$, the percentage of CEO compensation that is salary is lower by 1.87 percentage points on average, holding other things constant. This is significant at the $1 \%$ level with a $t$-statistic of -8.53 and does not follow my hypothesis. Conyon and $\mathrm{He}(2004)$ found that the more directors were paid, the smaller the percentage of equity incentives in CEO total compensation, suggesting that they were doing the CEO a favor in return for higher pay. However, this study used data from before the major recent independence requirements were implemented. Looking at the reverse, I hypothesized that higher director compensation would be associated with a higher percentage of CEO salary. My results suggest that directors are paid more when CEOs are given more incentive-based compensation. This could signify that the pay-setting environment has changed since the previous studies were completed. Directors are being paid more for "doing a good job," and now that means looking out for shareholder interests and structuring more incentive-based pay packages rather than rewarding the CEO for paying them more. While a stretch, these results indicate that the recent regulations may have made a difference. However, more extensive research is needed to make a definitive statement about whether the regulations affected this change.

Economic incentives are by far the most significant group of compensation committee characteristics affecting CEO pay structure, which is what I predicted in my hypotheses. The first regression focusing on economic incentives has an $R^{2}$ of 0.36 while the other two looking at personal and group dynamics characteristics have an $R^{2}$ of 0.18 and 0.18 , respectively. When combining all of the variables, the $\mathrm{R}^{2}$ is 0.36 .

## ii. Total CEO Compensation

In Table III, the dependent variable is the natural log of total CEO compensation. Compared to the previous regression, this regression led to a wider range of significant variables. Total CEO compensation is negatively correlated with the director being a male, and positively correlated with the director being a current or former CEO, the director being appointed by the CEO, total director compensation, and director ownership stake in the company.

Unlike in the first regression, one demographic variable and two variables indicating director ties to the current CEO are significant. If the compensation committee chair is male, total CEO compensation is $18.7 \%$ lower than if the director were female. This is significant at the $10 \%$ level and has a $t$-statistic of -1.74 . This is an interesting observation because $97.1 \%$ of the CEOs in my sample are male. There are only three cases in which there is both a female committee chair and CEO. This result indicates that the female committee chairs in my sample set higher levels of CEO compensation than the males, on average.

In the business world, females are widely perceived as of a status lower than males. Gayle, Golan, and Miller (2010) point out that they are given fewer promotion opportunities, tend to take more time off to have and raise children, and thus limit their ability to build experience in pace with their male counterparts. In my sample $83 \%$ of the compensation committee chairs are male; $44 \%$ of the female compensation committee chairs and $66 \%$ of the male committee chairs are current or former CEOs.

## Table III

## Effects on the Level of CEO Compensation

This table displays the results of the regression of total CEO compensation on several independent variables. ${ }^{*},{ }^{* *}$, and ${ }^{* * *}$ note significance at the $10 \%, 5 \%$, and $1 \%$ levels. T-statistics appear in parentheses. All data is from 2013.

| Dependent Variable $=\operatorname{Ln}($ CEO Total Compensation) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) |
| Male Director |  | $\begin{aligned} & -0.168 \\ & (-1.39) \end{aligned}$ |  | $\begin{gathered} -0.187^{*} \\ (-1.74) \end{gathered}$ |
| Director was/is a CEO |  | $\underset{(2.83)}{0.275 * * *}$ |  | $\underset{(3.01)}{0.260 * * *}$ |
| CEO is a Director |  | $\begin{aligned} & 0.0396 \\ & (0.12) \end{aligned}$ |  | $\begin{aligned} & -0.160 \\ & (-0.56) \end{aligned}$ |
| Years Serving as Director |  | $\begin{gathered} -0.00381 \\ (-0.43) \end{gathered}$ |  | $\begin{gathered} -0.00789 \\ (-0.98) \end{gathered}$ |
| Director Appointed by CEO |  | $\begin{gathered} 0.261 * * \\ (2.00) \end{gathered}$ |  | $\begin{gathered} 0.297 * * \\ (2.49) \end{gathered}$ |
| Director Age |  | $\begin{gathered} 0.0115 \\ (1.42) \end{gathered}$ |  | $\begin{gathered} 0.0104 \\ (1.40) \end{gathered}$ |
| Absolute Value of Age Difference |  | $\begin{gathered} 0.00238 \\ (0.24) \end{gathered}$ |  | $\begin{gathered} 0.00421 \\ (0.47) \end{gathered}$ |
| Ln (Director Cash Fees) | $\begin{aligned} & 0.0418 \\ & (0.51) \end{aligned}$ |  |  | $\begin{aligned} & 0.0601 \\ & (0.74) \end{aligned}$ |
| Ln (Director Total Compensation) | $\underset{(7.77)}{0.890 * * *}$ |  |  | $\underset{(7.80)}{0.889 * * *}$ |
| Director Ownership Percentage | $\begin{gathered} 9.38 \\ (1.27) \end{gathered}$ |  |  | $\begin{gathered} \text { 13.607* } \\ (1.85) \end{gathered}$ |
| Committee Size |  |  | $\begin{aligned} & 0.0123 \\ & (0.29) \end{aligned}$ | $\begin{gathered} 0.00438 \\ (0.12) \end{gathered}$ |
| Meetings |  |  | $\begin{gathered} 0.00284 \\ (0.14) \end{gathered}$ | $\begin{gathered} -0.0246 \\ (-1.33) \end{gathered}$ |
| Male CEO | $\begin{aligned} & -0.237 \\ & (-1.01) \end{aligned}$ | $\begin{gathered} 0.0144 \\ (0.06) \end{gathered}$ | $\begin{aligned} & -0.157 \\ & (-0.59) \end{aligned}$ | $\begin{gathered} -0.0351 \\ (-0.15) \end{gathered}$ |
| CEO Tenure | $\begin{gathered} 0.00494 \\ (0.68) \end{gathered}$ | $\begin{gathered} -0.0146 \\ (-1.49) \end{gathered}$ | $\begin{gathered} -0.00377 \\ (-0.48) \end{gathered}$ | $\begin{gathered} -0.00759 \\ (-0.82) \end{gathered}$ |
| CEO Age | $\begin{gathered} -0.00245 \\ (-0.36) \end{gathered}$ | $\begin{gathered} -0.00440 \\ (-0.48) \end{gathered}$ | $\begin{gathered} -0.00658 \\ (-0.87) \end{gathered}$ | $\begin{gathered} 0.000824 \\ (0.10) \end{gathered}$ |
| Ln(Total Assets) | $\begin{gathered} 0.241^{* * *} \\ (8.62) \end{gathered}$ | $\begin{gathered} 0.331^{* * *} \\ (11.65) \end{gathered}$ | $\begin{gathered} 0.345 * * * \\ (11.70) \end{gathered}$ | $\begin{gathered} 0.225 * * * \\ (7.78) \end{gathered}$ |
| ROA | $\begin{aligned} & 0.460 \\ & (1.15) \end{aligned}$ | $\begin{aligned} & 0.502 \\ & (1.13) \end{aligned}$ | $\begin{aligned} & 0.339 \\ & (0.76) \end{aligned}$ | $\begin{aligned} & 0.665^{*} \\ & (1.67) \end{aligned}$ |
| Industry Controls | Yes | Yes | Yes | Yes |
| Constant | $\begin{gathered} 1.810^{* * *} \\ (2.69) \end{gathered}$ | $\underset{(7.41)}{5.021^{* * *}}$ | $\begin{gathered} 5.955 * * * \\ (11.46) \end{gathered}$ | $\begin{aligned} & 1.088 \\ & (1.45) \end{aligned}$ |
| Observations Adjusted R ${ }^{2}$ | $\begin{gathered} 302 \\ 0.4896 \end{gathered}$ | $\begin{gathered} 312 \\ 0.3878 \end{gathered}$ | $\begin{gathered} 312 \\ 0.3586 \end{gathered}$ | $\begin{gathered} 302 \\ 0.5223 \end{gathered}$ |

Belliveau, O'Reilly, and Wade (1996) found that committee chairs of a status lower than the CEO tend to set higher levels of compensation-the committee chair being a current or former CEO would put them at a more equal status. Because of the perceived lower status of females in the business world, and the fact that a larger percentage of females in my sample are not current or former CEOs, this could impact the way they set CEO compensation levels.

While a somewhat bleak analysis, there have been promising signs of change. Many companies with female CEOs have a greater number of women sitting on the board of directors. Between 2004 and 2008, large companies with three or four female board members performed significantly better than boards with no female directors, and boards including female directors have been said to function better and to "make better decisions" according to Maggie Wilerotter, CEO of Frontier Communications Corp (Lublin, 2014). Since 2009, the proportion of females in the boardroom has increased from $12.5 \%$ to $15.8 \%$ in S\&P 1500 firms. While the business world has been slow to change, Gracia C. Martore, chief of Gannet Co. says that "It's time to take a chance on women." (Lublin, 2014).

My results also indicate that if the compensation committee chair was or is a CEO of another company, total CEO compensation is $26.0 \%$ higher. This is significant at the $1 \%$ level and has a t-statistic of 3.01 . This follows my hypothesis and could have two different interpretations. Whether the compensation committee chair was or is a CEO indicates a background overlap with the CEO that comes with a certain level of prestige. This could give the committee chair incentive to raise the level of CEO compensation
because they have a similar background and can empathize with them. However, this contradicts Belliveau, O'Reilly, and Wade's (1996) findings that lower status compensation committee chairs set higher levels of CEO compensation. Also, companies like to hire compensation committee chairs familiar with their industry. So, if they are a CEO of a company in the same industry it is more likely that they know one another.

Daily, Johnson, Ellstrand, and Dalton (1998) examined the effect of appointing the compensation committee chair, explaining that the chair could feel indebted to the CEO for giving them a job and, in turn, raise the level of CEO compensation. However, they did not find this to be significant. My results indicate that if the compensation committee chair was appointed after the current CEO took office, total CEO compensation is $29.7 \%$ higher than otherwise. This is significant at the $5 \%$ level with a tstatistic of 2.49 and consistent with my hypothesis. CEOs have a major say in who is appointed to the board, so the significance of this variable could also be attributed to the possibility that the CEO and the committee chair knew each other previously and already have an established relationship with one another. So, not only would the committee chair feel indebted to the CEO, but the chance of also knowing each other previously could influence the committee chair to set a higher pay level. Because both this variable and the committee chair being a current or former CEO are significant, it indicates that compensation committee chairs with personal ties to the CEO are more likely to create pay packages with a higher level of compensation.

For every $10 \%$ increase in total director compensation, CEO compensation increases by $8.89 \%$. This is significant at the $1 \%$ level and has a $t$-statistic of 7.80 . This
follows my hypothesis, indicating that compensation committee chairs are influenced by economic interests. While these results are definitely not proof of a "you scratch my back and I'll scratch yours" situation, they indicate that a higher level of committee chair compensation is correlated with a higher level of CEO compensation. This is also consistent with Conyon and He (2004) and Brick, Palmon, and Wald's (2006) findings. This variable had the highest t-statistic in the regression, supporting my hypothesis that economic incentives have a more significant effect on CEO compensation than other compensation committee characteristics. In the first regression, the negative relationship between CEO salary percentage and total director compensation indicated a possible change in the pay-setting process since the new independence regulations were passed. The results from this regression do not invalidate this possibility, but instead suggest that the new requirements may have affected the way CEO compensation is structured, but not the total level of compensation.

For every $1 \%$ increase in director ownership percentage, CEO compensation increases by $13.61 \%$. This is significant at the $10 \%$ level and has a $t$-statistic of 1.85 . This contradicts my hypothesis, but has a couple of reasonable explanations. A higher director ownership stake in the firm aligns the committee chair's economic interests with those of the shareholders. Greater CEO equity incentives reflect shareholder interests because the CEO has greater incentive to act in the interests of the company and perform well. A greater amount of equity incentives are likely to be present when there are higher levels of compensation in general. Another explanation for this positive correlation is that the compensation committee's higher ownership stake in the firm indicates their faith in the

CEO and in the company's ability to perform well. This confidence in the CEO could lead to higher levels of total compensation.

While economic incentives still account for most of the explanation of the variance in the natural $\log$ of total CEO compensation, personal relationship/demographic incentive variables are more significant than in the first regression. The $R^{2}$ for the regression looking only at economic variables, personal relationship/demographic incentive variables, and group dynamics variables are $0.49,0.39$, and 0.36 , respectively. The $\mathrm{R}^{2}$ for the combined regression is 0.52 , indicating that more than half of the variation in the natural $\log$ of CEO total compensation can be explained by my model.

## VII. Conclusion

Overall, my findings overlap with previous results in some areas and suggest there has been a change in others. Compensation committee chair demographics, personal ties to the CEO, and economic interests all play a significant role in the pay-setting process.

When examining CEO salary as a percentage of total compensation, I find that only personal ties to the CEO are correlated with lower-risk pay packages. The presence of the CEO on the board of directors is positively correlated with a higher salary percentage. This indicates CEO influence on the compensation committee because they are more likely to develop friendships with fellow board members, or to have a previous relationship with board members due to their influence in the director nomination process. I also find that the percentage of CEO compensation that consists of salary is negatively related to how much the compensation committee chair is paid, suggesting
that they do not structure lower risk pay packages in return for higher levels of pay. Conyon and He (2004) found the opposite result. This is the only significant variable indicating a change in the board environment since the new regulatory requirements were implemented.

When looking at the level of CEO compensation, I find that both personal ties to the CEO and economic interests of the compensation committee chair are significant. If the committee chair is a male, they are more likely to set lower levels of total CEO compensation, suggesting that the female directors in my sample set higher levels of CEO compensation on average. If the compensation committee chair was or is a CEO and if he or she was appointed by the current CEO are both positively related to CEO compensation, indicating that a personal relationship or background similarity with the CEO leads to higher levels of pay. I also find that the more the compensation committee chair is paid, the higher the level of CEO compensation. This is consistent with previous research looking at this variable and could suggest mutual favors granted between the committee chair and the CEO when setting compensation levels. A higher director ownership stake in the company is also associated with higher levels of CEO compensation.

In setting the percentage of contingent versus non-contingent pay, compensation committee chairs do not seem to be heavily influenced by the CEO's interests. In fact, the negative relationship between director compensation and CEO salary percentage provides a glimmer of hope that the pay setting environment is changing, although more research needs to be completed before this change can be attributed to the independence
regulations. The factors affecting the overall level of total CEO compensation suggest that the pay-setting process is still influenced by personal ties to the CEO and by high levels of compensation for serving on the board.

It would be useful for further research to expand upon my data by including information for a larger number of companies and over a longer time period to effectively analyze the impact of regulatory changes on the pay-setting process. While I am unable to assess whether there has been a change since I only use data from 2013, my results compared to those of previous studies suggest that the regulatory changes may not have been as effective as they were meant to be. Further research focused on addressing this issue is needed, especially since so many new independence requirements are still being implemented.

It would also be interesting for future studies to include variables that go more in depth in explaining personal ties between the compensation committee chair and the CEO, similar to Belliveau, O'Reilly, and Wade (1996). Many of my significant variables indicating a personal tie to the CEO could only be vaguely analyzed and suggestive of some sort of relationship, but could not pinpoint where the relationship came from. It would be interesting to include which undergraduate/graduate institution the director and CEO attended, whether they previously worked for the same company, etc. to be able to track the relationship back to a specific time and place. Unfortunately, the time frame of this paper limited my ability to collect this information.

While my data was limited to just over 300 companies, many of my variables were statistically significant. My data is unique because it combines a wide range of
explanatory variables from 2013. My results are important because they indicate that while extensive independence requirements are in place, and while compensation committees may appear independent on paper, there are factors that continue to affect the way they construct executive compensation. The independence requirements already in place are costly and time-consuming for companies to comply with, and this study suggests that there are still remaining issues that don't seem to have changed since previous studies were completed. Before creating new regulations, it is important to evaluate the benefits of possibly affecting the pay-setting process and putting the public at ease versus the costs of implementation. It is also important to see where past requirements have been successful and where they have not so future regulators have a better idea of how to create effective regulations governing compensation committee independence. Many of the variables I found to be significant were indicative of a friendship or other personal tie to the CEO, which would be difficult and costly to measure, and even more complicated to create and implement regulations around. Overall, my results have interesting considerations for future regulatory requirements and provide valuable insight into the formation of executive compensation.

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Table IV
Variable Descriptions

| Variable |  |
| :--- | :--- |
| Independent Variables | Description |
| Male Director | Takes a value of 1 if the compensation committee chair ("committee chair") is <br> a male, and a 0 if female. From 2013 proxy statements. |
| Same Gender | Takes a value of 1 if the committee chair and the CEO are the same gender, <br> and a 0 otherwise. From comparison of ExecuComp Annual Compensation <br> data and 2013 proxy statements data. |
| Director was/is a CEO | Takes a value of 1 if the committee chair was or is currently a CEO of another <br> company and a 0 otherwise. From 2013 proxy statements. |
| CEO is a Director | Takes a value of 1 if the CEO is a current director on the company board and <br> a 0 otherwise. From Execucomp Annual Compensation. |
| Years Serving as Director | The number of years the committee chair has served as a director of the <br> company. From 2013 proxy statements. |
| Director Appointed by CEO | Takes a value of 1 if the committee chair was appointed while the current <br> CEO was already in office. From ExecuComp Annual Compensation data <br> and 2013 proxy statements data. |
| Director Age | The age of the compensation committee chair in years. From 2013 proxy <br> statements. |
| Absolute Value of Age Difference | The absolute value of the age difference between the committee chair and the <br> CEO. From ExecuComp Annual Compensation data and 2013 proxy <br> statements data. |
| Employees | The total compensation received by the committee chair from the company for <br> the fiscal year in thousands of dollars. From ExecuComp Director <br> Compensation. |
| Total Market Value | Compensation committee chair beneficial ownership as a percentage of total <br>  <br> (irector Total Compensation shares outstanding. Number of shares beneficially owned from 2013 <br> (in 1000s) |
| proxy statements and number of shares outstanding (2013) from |  |
| COMPUSTAT. |  |

Table V
Correlation Matrix

| Panel 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\operatorname{Ln}$ (Director Total Compensation) | Ln(Director Cash Fees) | Committee Size | Male Director | $\begin{array}{\|l} \hline \text { Male } \\ \text { CEO } \end{array}$ | Meetings |
| Ln(Total Director Compensation) | 1.0000 |  |  |  |  |  |
| Ln (Director Cash Fees) | 0.5038 | 1.0000 |  |  |  |  |
| $\begin{aligned} & \hline \text { Committee } \\ & \text { Size } \end{aligned}$ | 0.0936 | 0.1610 | 1.0000 |  |  |  |
| Male Director | 0.0274 | 0.0122 | 0.0423 | 1.0000 |  |  |
| Male CEO | 0.0146 | -0.0145 | -0.0291 | 0.0786 | 1.0000 |  |
| Meetings | 0.2089 | 0.1055 | -0.0359 | -0.0784 | 0.0402 | 1.0000 |
| $\begin{aligned} & \text { Director was/is } \\ & \text { a CEO } \\ & \hline \end{aligned}$ | 0.1671 | 0.0970 | 0.0584 | 0.1507 | -0.0964 | -0.0310 |
| Years Serving as Director | -0.0523 | -0.0706 | 0.0397 | 0.0899 | 0.1105 | -0.1014 |
| CEO Tenure | -0.2495 | -0.1165 | 0.0027 | 0.0920 | 0.0477 | -0.0600 |
| Director Appointed by CEO | -0.1453 | -0.1155 | -0.0624 | -0.0061 | -0.0584 | -0.0060 |
| Director Age | -0.0115 | -0.0212 | 0.0914 | 01852 | 0.0112 | -0.0192 |
| CEO Age | -0.1178 | -0.1094 | 0.1082 | 0.0070 | 0.0290 | -0.0228 |
| Absolute Value of Age Difference | 0.0337 | 0.0569 | -0.0455 | 0.1560 | 0.0155 | 0.0024 |
| Director Ownership Percentage | -0.0958 | -0.0552 | 0.0068 | 0.0616 | 0.0342 | -0.0800 |
| CEO is a Director | 0.0543 | -0.0006 | 0.0397 | -0.0639 | $-0.0251$ | -0.0040 |
| $\begin{array}{\|l} \hline \text { Ln(Total } \\ \text { Assets) } \\ \hline \end{array}$ | 0.4136 | 0.2571 | 0.2635 | 0.0430 | -0.0136 | 0.1050 |
| ROA | 0.0741 | 0.0810 | 0.0628 | -0.0210 | 0.0231 | -0.0545 |


| Panel 2 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Director was/is a CEO | Years Serving as Director | CEO Tenure | Director Appointed by CEO | Director <br> Age | $\begin{aligned} & \text { CEO } \\ & \text { Age } \end{aligned}$ | Abs Value of Age Diff |
| Director was/is a CEO | 1.0000 |  |  |  |  |  |  |
| Years Serving as Director | -0.0534 | 1.0000 |  |  |  |  |  |
| CEO Tenure | -0.0983 | 0.1933 | 1.0000 |  |  |  |  |
| Director Appointed by CEO | -0.500 | -0.3644 | 0.5556 | 1.0000 |  |  |  |
| Director <br> Age | 0.0323 | 0.3934 | 0.2154 | -0.0710 | 1.0000 |  |  |
| CEO Age | -0.1741 | 0.1594 | 0.4724 | 0.2828 | 0.2375 | 1.0000 |  |
| Absolute Value of Age Difference | 0.0634 | 0.2331 | -0.1625 | -0.2489 | 0.4726 | -0.4248 | 1.0000 |
| Director Ownership Percentage | -00730 | 0.1427 | -0.0032 | -0.0708 | -0.0062 | -0.0406 | -0.0043 |
| CEO is a Director | 0.0364 | -0.0993 | 0.0826 | 0.0663 | -0.0259 | 0.0908 | -0.0786 |
| Ln(Total Assets) | 0.1940 | -0.1097 | -0.1019 | -0.0171 | -0.0313 | 0.0929 | -0.1657 |
| ROA | 0.0849 | 0.0767 | 0.0374 | -0.0901 | -0.1014 | 0.0329 | -0.0968 |


| Panel 3 |  |  |  |  |  | Director <br> Ownership <br> Percentage | CEO is a <br> Director | Ln(Total <br> Assets) | ROA |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Director <br> Ownership <br> Percentage | 1.0000 |  |  |  |  |  |  |  |  |
| CEO is a <br> Director | -0.1638 | 1.0000 |  |  |  |  |  |  |  |
| Ln(Total <br> Assets) | -0.1259 | -0.0526 | 1.0000 |  |  |  |  |  |  |
| ROA | -0.0614 | 0.0218 | 0.1793 | 1.0000 |  |  |  |  |  |

