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# An Analysis of Executive Compensation in Small Businesses[±]


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Using a broad-based sample of small businesses, we analyze the relation between accounting-based firm performance measures and executive compensation for S-corporations, and C-corporations. After controlling for the potential endogeneity associated with the choice of organizational form, we find a positive relation between executive pay and ROA in S-corporations and C-corporations. We also find a positive relation between executive pay and total asset turnover but the relation is stronger for S-corporations. We document a positive


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relation between executive salaries and more diffuse ownership, owner managers, and when the founder is the current owner. We find a negative relation between executive salaries and firms with greater than fifty percent family ownership.

## I. Introduction and motivation

Executive compensation issues attract attention in both the academic and political arenas. Much of the public interest focuses on escalating compensation for CEOs of publicly traded companies with an increased divergence in pay between CEOs and lower level employees. As described by Murphy (1999), the academic literature has evolved primarily because of the emergence and general acceptance of agency theory and the increased accessibility to executive compensation data. In general, studies find that compensation increases with firm size and executive compensation is positively related to firm performance (e.g., Lewellen and Huntsman, 1970; Ciscel and Carroll, 1980; Murphy, 1985), although the economic magnitude of the change in pay relative to performance has been questioned (Jensen and Murphy, 1990). In addition, studies have focused on firm characteristics that impact both compensation levels and compensation structure (e.g., Smith and Watts, 1992; Gaver and Gaver, 1993).

The current compensation literature focuses on large, publicly traded firms. For the most part, a void exists in the literature regarding small firm compensation practices, partially due to the difficulty in obtaining data on compensation in small, privately held firms. Also, small firms tend to have less pronounced agency problems since many small firms have owner/managers. Fama and Jensen (1983a, 1983b) argue that the residual claims of privately held firms are largely restricted to owner/managers or to agents, such as family members or business associates, with a special relationship with the owner. Therefore, they argue that agency problems between owners and managers may be mitigated in privately held firms. However, not all privately held firms are run by owner/managers in which case the agency problems may still exist with a need for owners to monitor management (e.g., Ang, Cole and Lin, 2000).

Only recently has research begun to focus on closely held firms and the unique incentive problems they may face. For example, Bates, Jandik and Lehn (2000) analyze the promotion incentives (tournament theory) and executive compensation of executives in family-controlled public firms and find that non-family executives in family owned firms are faced with diminished promotion incentives. In their study of publicly-traded and privately-held property-liability insurance companies, Ke et al. (1999) find a positive, significant relation between CEO pay and ROA in publicly-traded insurers but the relation is insignificant for privately-held insurers. They conclude that privately-held insurers do not rely on compensation contracts linking pay to accounting based performance to mitigate agency problems but instead may rely on direct monitoring combined with subjective performance measurement.

Focusing on privately-held small C corporations, Cavalluzzo and Sankaraguruswamy (2005) find evidence that executive compensation is more closely related to sales to assets in privately-held small corporations with more disperse ownership than those with more concentrated ownership. They also find that the sensitivity of compensation to sales to assets is weaker if the firm is a family owned business and the manager is a shareholder.

The goal of this paper is to analyze the unique issues faced by small firms that are organized as C-corporations and S-corporations. These organizational forms differ in their ownership structures, tax treatment, and in the type of agency problems they face. Specifically,

we analyze the factors that influence the compensation structure of small firms while considering the intra-dependence between the choice of organizational form and the optimal structure of compensation contracts.

Our paper differs from Cavalluzzo and Sankaraguruswamy (2005) in the following ways. First, we analyze both S and C Corporations and restrict our sample to firms with less diffuse ownership. Specifically, we exclude C corporations (approximately five percent of the C-corporate sample observations) with more than thirty shareholders. Our goal is to compare small firm compensation practices while controlling for diffuse ownership of C corporations. Second, when we investigate the relation between executive pay and different accounting based firm performance measures for privately held firms, we control for the potential endogeneity associated with the choice to organize as an S-corporation and a C-corporation and compensation practices using two stage least squares.

We conduct our tests on the data from the 1993 National Survey of Small Business Finances (NSSBF) sponsored by the Federal Reserve Board and the Small Business Administration. The survey is of a nationally representative sample of small businesses with less than 500 employees and contains 4,637 usable survey responses (according to PriceWaterhouse). Specifically, we analyze S-corporations and privately-held C-corporations.[1]

Consistent with previous studies of large publicly traded companies, we find a positive relation between firm size and executive salaries for our full sample of privately-held firms. We also find a positive relation between executive salaries and return on assets independent of organizational form. Decomposing return on assets into profit margin and total asset turnover, we find a positive relation between executive salaries and total asset turnover. However, when we interact corporate form with total asset turnover, the result suggests that C corporations pay less for the efficient use of assets relative to S corporations. Therefore, our results are more consistent with Holmstrom's (1979) second best solution to the contracting problem which suggests using imperfect estimators of an agent's actions when complete monitoring is impossible or prohibitively costly. In the case of S corporations and C corporations, total asset turnover appears to be the better proxy for cash flows available to owners than ROA, which is more typically used for large publicly traded firms, even after controlling for owner managers, family ownership and diffuse ownership. Our results differ from Ke, et.al. (1999) who find that privately-held insurers do not rely on compensation contracts linking pay to accounting based performance to mitigate agency problems. It may be that agency costs and/or information asymmetry problems are less severe in the insurance industry and thus, Ke, et. al.'s findings can not be generalized to a broad based sample of privately held small firms.

The paper is organized as follows. In Section II, we discuss the characteristics of different organizational forms and the implications with respect to compensation practices. In Section III, we describe the data and our empirical model. Section IV includes a discussion of our results followed by our conclusions in Section V.

## II. Different organizational forms

Since our focus is on executive compensation across different organizational forms of small businesses, we begin with a discussion of the characteristics associated with S-

[1] We do not discuss the characteristics of sole proprietorships because, while this organizational form is present in the survey data, none of the sole proprietorships provide the accounting data from the survey questions necessary to be included in this study. Similarly, partnerships do not provide sufficient compensation data to be included in this study.

corporations and C-corporations. Drawing on the differences in firm structure, we describe the theoretical arguments that may predict compensation contracts across these different organizational forms. Then we discuss firm performance measures available for small businesses.

### 2.1 Characteristics of different organizational forms

A corporation is a legal entity created by a state that is distinct from its owners and managers, has unlimited life, ease of transferability of ownership and limited liability. S-corporation, as defined by Subchapter S in the Internal Revenue Code, is a federal income tax election made by a corporation by filing a form with the IRS. Otherwise, the S-corporation is formed in the same manner as a C-corporation under state law. The election is limited to firms that currently have 100 or fewer stockholders for tax years beginning in 2004 (per CCH Business Owners Toolkit). In 1993, the date of our sample, the restriction was for 35 or fewer stockholders (Denis and Sarin, 2002). S-corporate status requires the corporation to be domestic and the firm may issue only one class of stock. Subchapter S shareholders may not be nonresident aliens or a nonhuman entity. After the ownership restrictions, an S-corporation can be considered a hybrid organizational form that combines characteristics of a regular corporation and a partnership. Unlike a C-corporation, an S-corporation does not pay corporate income tax, but instead passes all of its income on to the stockholders for payment of taxes in a manner similar to a partnership. The income of a S corporation is subject to only one tax, at the individual level. Unlike the S corporation, the C corporation shareholders have the tax benefit of deferring taxes on income retained in the firm. If earnings are not paid out as dividends, they are not taxed at the personal level until the shareholder realizes capital gains income (e.g., Denis and Sarin, 2002). Therefore, the primary differences in organizational form between S-corporations and C-corporations relate to taxes and the number and type of owners.

Given the differences and similarities between S-corporations and C-corporations, the question becomes what determines the choice to set up the firm as a S or C corporation and what is the appropriate compensation of the executives? Various factors such as number of shareholders, growth opportunities, business risk, size, and lines of business may contribute to both the choice of organizational form and level or structure of compensation. Additional factors likely to influence compensation include owner-manager, family ownership, and founder status.

We expect S-corporations to have fewer shareholders given they are faced with restrictions on the maximum number of shareholders. Therefore, S-corporations are less likely to have a highly diffuse ownership structure. As originally argued by Berle and Means (1932), a diffuse ownership structure may diminish incentives to shareholders to monitor management since the cost of monitoring likely outweighs the benefit. Since more diffuse ownership suggests greater agency problems, tying compensation to performance may mitigate some agency costs in more diffusely held firms. In addition, given the restriction on number of shareholders, owners that choose subchapter S status may not expect to have as great a need to raise additional capital from new shareholders. Those choosing C-corporate status may expect to be in need of a larger shareholder base to support expected growth. Since ownership structure may also impact agency costs, we specify a variable defined as number of owners in the firm.

The shareholder restriction may also suggest differences in the perceived growth opportunities associated with the firm. If a firm has high growth opportunities, the owners may

choose C-corporate status for the potential to draw on a larger shareholder base. Many C-corporations draw from their employee pool to raise additional capital or to provide ownership incentives through private stock grants.[2] High growth opportunities have also been found to be associated with a stronger pay-performance relation (e.g., Smith and Watts, 1992; Gaver and Gaver, 1993) suggesting that C corporations may be more likely to have a stronger pay-performance relation than S corporations.

Differences in firm size are likely to influence compensation level and the choice of organizational form. One of the most well documented empirical regularities for executive compensation is the positive relation between executive compensation and firm size (Murphy, 1999). We expect the relation to continue in small businesses. In addition, we expect small firms to be more likely to choose S-corporate status. The smaller firms will often choose S-corporate status since the ownership restriction becomes a non-binding constraint. Also, as argued by Plesko (1994), larger firms are likely to have more complicated financial and ownership structures making it more difficult to meet eligibility requirements for subchapter S.[3]

According to Cavalluzzo and Geczy (2002), S-corporations are more attractive than C-corporations in certain lines of business based on the Revenue Act of 1987. Plesko (1994) provides a breakdown of S corporation returns by major industrial sector and finds that less capital-intensive industries are more likely to convert from subchapter C to subchapter S. In addition, accounting ratios are known to vary by industry. If firms choose to tie pay to performance, the ratios chosen and the relation between pay and performance is likely to vary by industry. Therefore, we expect industry may influence both the choice of organizational form and compensation structure.

A related idea to growth opportunities is the risk of the underlying assets. If the risk differs across the organizational forms, then the monitoring of managerial performance in the less risky company may be easier and the need to vary compensation schemes would be minimal. According to Smith and Watts (1992), managerial activities are easier to observe and evaluate in more stable, less risky firms. Often business risk varies by industry and therefore, industry may influence both the choice of organizational form and compensation structure.

Bates, Jandik and Lehn (2000) find that family-owned firms pay less than non-family owned firms. The difference is primarily driven by lower pay to the top executive. We expect family ownership to be negatively related to the level of compensation for privately-held firms. In addition, we expect family members to more closely monitor management reducing the agency conflict and potentially weakening the relation between compensation and performance.

The owner/managers will have more discretion in terms of how to compensate themselves. The owner/managers of a C corporation are likely to choose higher wages and no dividends since C corporations are subject to double taxation of dividends. In the zero agency cost case where we have a 100% owner manager, the owner manager reaps all the benefits from his or her efforts (Ang, Cole and Lin, 2000). In firms with lower agency costs, we would expect higher salaries for owner managers due to a more efficient utilization of assets.

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[2] Unfortunately, we can not measure this type of stock ownership in our sample since these are privately held firms and do not provide the information necessary to value non-traded privately held stock.

[3] As stated in the CCH Business Owner's Toolkit, the requirements for electing S corporate status do not explicitly limit the status to small corporations in terms of revenue. However, the other requirements such as the corporation must be domestic, only one class of stock, and shareholders may not be a nonresident alien or a nonhuman entity may limit larger corporations ability to elect S-corporate status. See the specific criteria outlined in the Internal Revenue Code, Sections 1361 and 1371.

Founder status may also influence compensation level. Chung and Pruitt (1996) estimate a system of equations with founder/founders family dummy variables included in their compensation equation and find that founding CEOs or their family successors tend to receive less cash compensation than their non-founder counterparts, although the statistical significance of the relation is weak. Therefore, we do not have a clear prior on the sign for this variable but control for founder status in our regressions.

Finally, competition in the labor market also influences compensation. To broadly control for competition in the labor market, we control for firms operating in a metropolitan statistical area (MSA). We expect firms operating in an MSA to pay higher levels of compensation than those firms operating in rural areas.

### 2.2. Measures of performance

Since both S corporations and C corporations have unlimited life and limited liability of owners, owners may not actively participate in the operations or decision making of the business. Owners with a limited role in the business will likely use output based accounting measures to provide information regarding the actions of the managers. Holmstrom (1979) argues that noisy measures of performance can provide useful information to owners in order to determine appropriate levels of compensation for the corporation's managers.

Typical proxies for executive performance for large publicly traded firms include stock price performance and accounting based measures of firm performance. However, for small privately-held firms the market value of stock prices are typically not available and therefore, the focus on performance is restricted to an analysis based on the firm's financial statements. The primary accounting measures of firm performance are profitability ratios, which measure how efficiently firm operations are managed to generate net income. We choose to use ROA, defined as net income divided by total assets, as our profitability ratio because it is the most commonly used performance measure in academic research to establish a pay for performance relation (e.g., Ke et al., 1999; Blackwell et al., 1994).

One caveat to privately held corporations utilizing ROA as the measure of firm performance is that previous research suggests that privately held firms more aggressively manage taxes (Beatty and Harris, 1999; Mikhail, 1999) and therefore, are less concerned with the overall net income reported. To the extent that privately held firms more aggressively manage taxes, ROA will be lower. Utilizing ROA as the measure of performance reduces the incentive to manage taxes since lowering taxes through lower earnings before taxes are associated with lower net income and therefore, lower levels of compensation. Therefore, as noted by Ke et al., we would be less likely to observe privately-held firms utilizing ROA as a firm performance measure for compensation purposes.

Also, since the owners are taxed differently in the different organizational forms available to small businesses, the firm performance measure related to executive compensation may vary across organizational forms based on the taxation of the owner. Since profits flow through to the individual owners of S-corporations, owners may have a greater incentive to engage in expense preference behavior to shelter income from taxation than managers of C-corporations. Since C-corporations are faced with the double taxation of dividends, the incentive to owner-managers of C-corporations is to receive cash flow payouts through compensation as opposed to dividends. Both the potential expense preference behavior of S-corporations and the higher salaries for C corporations to avoid dividend distributions will reduce EBIT and similarly reduce ROA for small firms. Accordingly, alternative measures of

firm performance, other than operating performance or ROA, may be more relevant in S and C corporations.

Although not typically used in compensation research for large publicly traded firms, asset management ratios such as total asset turnover measure how efficiently the firm uses its assets to generate sales. Ang et al. (2000) argue that agency costs are inversely related to the total asset turnover ratio. They argue that managers, for example, may make poor investment decisions and/or exert insufficient effort, which results in lower revenues. We argue that by establishing a relation between total asset turnover and compensation, owners may be able to mitigate some agency costs.[4] In addition, total asset turnover is an accounting measure that is devoid of tax effects and is measured prior to any expense preference behavior.

In general, we expect small firms to utilize total asset turnover rather than ROA in evaluating performance for compensation purposes. In addition, in situations where the agency problems are less pronounced such as when the small firm is more closely held or has an owner manager, we would expect either less reliance on accounting measures of firm performance or more reliance on total asset turnover relative to ROA. Ang, Cole and Lin (2000) argue that the difference in total asset turnover between a firm whose manager is the sole equity owner and a firm whose manager owns less than 100% of equity, measures agency costs that result from the loss in revenues attributable to inefficient asset utilization.

The pay-performance relation should reflect the ability of managers to generate cash flows for investors (e.g., Jensen and Murphy, 1990 and Smith and Watts, 1992). The empirical question becomes which performance measure is a better proxy of cash flows for investors in small firms. We consider both ROA and total asset turnover as alternative proxies for measuring firm performance in privately held firms.

## III. Data, methods, and descriptive statistics

### 3.1. Data

We obtain our data from the 1993 National Survey of Small Business Finances (NSSBF), co-sponsored by the Federal Reserve Board and the U.S. Small Business Administration. According to the Methodology Report (1996) by PriceWaterhouse, the NSSBF report is one of the most comprehensive general-purpose databases on small businesses available in the public domain.[5] The 1993 NSSBF provides information from 5,356 completed interviews of a stratified random sample of small businesses operating with fewer than 500 full-time equivalent employees. PriceWaterhouse reports that the data contain 4,637 usable responses to the survey. We exclude from the sample: (1) not-for-profit businesses, (2) government agencies, and (3) depository institutions (or non-deposit credit institutions) and any firms that have insufficient data based on our specified regression variables.[6]

After our initial data restrictions, we also analyze the data for outliers and comparability. We find that the number of shareholders in the initial C corporation sub-sample

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[4] A positive relation between compensation and total asset turnover would also be consistent with Welles (1995) who provides survey evidence from small business owners that suggests the owners rely more heavily on sales in determining compensation levels.

[5] See the web site http://www.federalreserve.gov/pubs/oss for information on the NSSBF report and the corresponding database. Although a 1998 NSSBF survey is available on the website, it does not have the same compensation data available that is included in this study.

[6] For our purposes, excluding depository institutions and government entities is important since Smith and Watts (1992) and Gaver and Gaver (1993) argue that regulated firms have systematically different compensation schemes due to their restricted investment opportunity sets.

ranged from 1 to 9,000. However, only a few C corporations have over 1,000 shareholders with most firms having less than 200 shareholders. As noted in Table I, approximately five percent of the initial C corporations in the sample have over thirty shareholders. Also, seventy seven and seventy two percent of the S and C corporations have less than four owners, respectively. To avoid including firms that we suspect are systematically different than other firms in the sample, we restrict our sample to firms with thirty or less owners.[7] The resulting sample size is 1,825 firms with 707 S-corporations and 1,118 C corporations. The survey data include detailed information regarding owner and organizational demographics, sources of financial services, income and expenses and a complete balance sheet of financial data for each firm.

### 3.2. Method

Since the choice of organizational form may be considered an endogenous variable, determined within the system of equations, we use two-stage least squares regression analysis. Otherwise, least-squares estimates of the compensation regression parameters will be biased and inconsistent. In order to perform the first stage of two-stage least squares, we create a new variable to replace the problematic causal variable by choosing instrumental variables that influence the choice of corporate form but are unrelated to compensation (e.g., Kennedy, 1992). Therefore, we begin by motivating the choice of the instrumental variables.

The primary factors that influence the choice of corporate form are taxes, types of shareholders a firm can have, and access to additional capital. C corporations have a broader group of shareholders available to them to raise capital from. Therefore, a variable that may capture a firm's need to access capital and influence the choice of organizational form is whether the firm offered equity to new shareholders. Although Table II shows that S corporations are significantly more likely to raise additional capital than C corporations, C corporations are more likely to raise the equity from new shareholders (although the difference is not significant), expanding their shareholder base. The new equity variable is likely to be unrelated to compensation.

Young firms may choose S-corporate status for tax purposes. According to Cavalluzzo and Geczy (2002) and Plesko (1994), age contributes to the choice of organizational form from a tax perspective. When a firm is in the start up phase, costs tend to be high and losses often occur. To the extent that losses can offset income from other sources for the owners of S-corporations, they receive tax benefits from the flow through entity. All losses would stay in a C-corporation and be carried forward to offset future corporate income. The immediate use of losses for the owners of the S-corporation yields a higher present value of tax savings. In addition, the greater the differential between the corporate and individual tax rates, the greater the advantage to passing the losses through to the individual. As firms age and become more profitable, the differential tax rates between corporate and individual income reverses the tax benefit and increases the benefit of being taxed as a corporation. Therefore, a variable that may capture the differential tax treatment associated with S and C corporations and influence the

[7] We find that our C corporate results are sensitive to the inclusion of corporations with more than 200 owners. Once we eliminate firms with more than 200 owners, any additional restrictions on the sample leave our results virtually unchanged. Therefore, to provide for comparability across the organizational forms, we restrict ownership to 30 owners which is the maximum number of owners in our sample of S-corporations. The ownership restriction causes us to drop 61 C corporations from the sample. We also analyze total assets and total executive salaries for outliers and eliminate four S-corporations.

choice of organizational form is the age of the firm. S corporations are significantly younger than C corporations as shown in Table II. Firm age has been shown to have an insignificant relation with compensation (e.g., Cavalluzzo and Sankaraguruswamy, 2005).

In the first stage, we regress choice of organizational form on all of the predetermined variables in the whole system including firm age and new equity. The dependent variable is a 0/1 indicator variable equal to one if the firm is organized as a C corporation and zero if the firm is organized as a S corporation. Then, we replace the organizational form variable in the compensation equation that follows with the fitted variable from the first model.[8]

The second stage equation is our compensation model where the dependent variable is the aggregate level of top management compensation but depends on the choice of organizational form. Our compensation equation is similar to Ke et al. (1999) and Cavalluzzo and Sankaraguruswamy (2005):

$$\ln(\text{salary}_i) = \alpha + \beta_1 \ln(\text{assets}_i) + \beta_2 \ln(\text{age}_i) + \beta_3 \text{family}_i + \beta_4 \text{MSA}_i + \beta_5 \text{founder}_i + \beta_6 (\text{owner/manager}_i) + \beta_7 \text{number of owners}_i + \beta_8 \text{corporate form}_i + \beta_9 \text{perform}_i + \beta_{10\text{-}17} \text{industry}_i + \varepsilon_i \quad (1)$$

where assets is measured as the natural log of total assets, age is the natural log of the age of the firm, family is a 0/1 indicator variable taking on the value of one if the firm has greater than 50% ownership by a single family, MSA is a 0/1 indicator variable taking on the value of one if the firm operates in a metropolitan statistical area, founder is a 0/1 indicator variable taking on the value of one if the firm is managed by a founder, owner/manager is a 0/1 indicator variable taking on the value of one if the owner manages the business, number of owners is the number of shareholders of the corporation, corporate form is the predicted probability of a firm being organized as a C corporation, perform is the firm performance measure and industry is a series of 0/1 indicator variables based on one-digit SIC codes.

We estimate the model for the entire sample to determine if executive salaries in small businesses are associated with firm performance. We are restricted to measuring compensation in terms of levels as the data on compensation are for 1993. The levels model estimates the relation between the level of compensation and performance.

### 3.2.1. Dependent variable

The dependent variable is the total amount of annual salary paid to all top executives of the business. The survey question used is 'during (YEAR), what was the amount of the officers' compensation/guaranteed payments to partners?' Therefore, the compensation variable represents an aggregate measure of total cash compensation paid to executives. We interpret the variable to include salary and bonus. Following Ke et al. (1999), we use the natural logarithm of compensation in our regressions ($\ln(salary_i)$) .

### 3.2.2. Accounting-based firm performance measures

Following Ke et al. (1999) and Blackwell et al. (1994), we use ROA measured as net income divided by total assets. We measure total asset turnover as sales divided by total assets. Since the Du Pont equation defines ROA as the product of profit margin and total asset

[8] According to Angrist and Krueger (2001), the consistency of the second stage of two stage least squares does not hinge on getting the functional form right in the first stage. Therefore, it is not necessary to use a discrete dependent variable model for our dummy endogenous variable, organizational form.

turnover, we also include a measure of profit margin in our regressions to determine which component of ROA drives any relation between ROA and executive compensation. Since ROA, asset turnover, and profit margin ratios are known to vary across industries, we attempt to control for these differences by including industry control variables in the regressions.

### 3.3. Descriptive statistics

Table II provides descriptive statistics for the sample. Our results focus on S-corporations and C corporations. Since ratios often vary systematically by industry, we analyze the industry composition of firms in our sample. Table II includes the SIC code breakdown of the firms in our sample across codes 1 through 8.[9] Our sample does not contain firms from codes 0 and 9. Despite our expectation that industry may influence both the choice of organizational form and compensation structure, our S and C corporate samples appear to be similarly distributed across SIC codes with the largest concentration in SIC code 5 which includes wholesale and retail trade. The only significant difference in industry concentration is a significantly greater percentage of the S corporate firms are concentrated in SIC code 7, Business and Entertainment Services than C corporate firms.

Table II provides frequencies for the indicator variables in our model (family ownership, founded by current owner and owner managed) and mean and medians for the continuous variables in our model. Analyzing the indicator variables, approximately 75 percent of the S-corporations and C corporations are family owned. Similarly, approximately 75 percent of S-corporations and C corporations are owner managed. Not shown in the table, however, is that 58 (60) percent of the corporations (S-corporations) that are family owned are also owner managed. This highlights the idea that a firm can be owner managed but the firm does not necessarily have over 50 percent of the total firm ownership concentrated within the owner manager's family. Seventy (sixty-seven) percent of S-corporations (C corporations) are founded by the current owner.

Given that the mean and median are very different, we will focus our discussion on the medians of the continuous variables which will likely provide a better representation of the businesses in the sample. Table II shows that median executive salaries are significantly lower at S-corporations ($72,000) than at C-corporations ($86,000). S-corporations are also smaller with median total assets of $480,122 compared to median total assets of $533,915 for C-corporations, although the difference is not significant. In general, salary levels in Table II are consistent with the well documented positive relation between firm size and executive compensation (Murphy, 1999). When analyzing medians, regular corporations are the largest firms in the sample and corporate executives earn the highest salaries.

Table II also shows whether the firm is located in a Metropolitan Statistical Area. We expect that there is more competition for business executives in an MSA than in a rural area, which would influence executive compensation. The frequencies show that about 80% of the businesses in each organizational form are located in an MSA. So, most of the businesses in the sample would have competition in their immediate vicinity for executive talent.

Analyzing performance in Table II shows that median ROA is significantly higher for S-corporations (13 percent) than for regular corporations (8 percent) which is consistent with higher salaries for C corporate executives but may suggest that S corporate executives do not

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[9] Depository institutions are included in SIC code 6. However, as previously noted we exclude depository institutions from our sample but include insurance, brokerage and real estate firms.

engage in expense preference behavior. Total asset turnover appears more consistent across the organizational forms ranging from 3.12 to 3.25.
The statistics in Table II show that the S-corporations in this sample tend to be smaller, younger, with stronger accounting performance measures than C corporations.

## VI. Results

As previously stated, our goals for this study are twofold. First, we analyze whether a relation exists between total executive pay in small businesses and accounting-based firm performance measures. Second, we determine if the relation between pay and performance varies across the different organizational forms available to small businesses.

### 4.1. Entire sample

We report our second stage regression results from estimating equation (1) on the entire sample of small businesses in Table III. Although we include industry controls in all model specifications, we suppress the coefficients for brevity. The first column of results includes only the control variables and the corporate form indicator variable as independent variables. The second column of results includes the control variables, corporate form variable and ROA. Finally, based on the Du Pont analysis, we decompose ROA between profit margin and total asset turnover in the third column. The regression with only the control variables has substantial explanatory power. We find a positive and significant relation between executive salaries and firm size, if the firm operates in a metropolitan area, if the firm is owner managed, the founder is the owner manager and the ownership is more diffuse. Consistent with Bates, Jandik and Lehn (2000), we find a negative and significant relation between executive salaries and family ownership. Our results suggest that owner/managers provide higher executive compensation in small businesses while firms that have over 50 percent family ownership pay lower executive salaries, *ceteris paribus*. The corporate form variable suggests that C corporations pay higher executive salaries than S corporations.

When we include accounting based measures of firm performance in the compensation equations, both ROA and total asset turnover are significant and positive. This suggests that better firm performance and more efficient asset utilization is associated with higher executive salaries, *ceteris paribus*, in a broad-based sample of small businesses. The positive relation between the performance ratios and executive salaries in small privately-held businesses is particularly important because it suggests that small firms link the level of executive compensation to firm performance. This result is in direct contrast to the results reported in Ke et al. (1999). They find no relation between levels of CEO pay and ROA in privately-held insurance companies, which they interpret to suggest that privately-held firms use subjective measures to evaluate executive performance for determining executive compensation. We argue that Ke et al.'s findings may be specific to the insurance industry and are not generalizable to a broad based sample of privately held small firms.

### 4.2. Results for interacting organizational form and firm performance

To analyze whether organizational form impacts the use of accounting based firm performance measures in compensation practices, Table III also reports the second stage results from estimating equation (1) by introducing interaction variables between the corporate organizational form and each firm performance proxy. We find that the interaction variable between ROA and corporate form is insignificant in column four suggesting that executives'

salaries in both S-corporations and C corporations are equally sensitive to ROA. The sensitivity of executive compensation to ROA is equivalent across organizational forms. Alternatively, the interaction variable between asset turnover and corporate form in column five is negative and significant suggesting that C corporations executive compensation packages are significantly less sensitive to the efficient use of assets relative to executive compensation packages for S corporations.[10] A test of the joint significance of the coefficient on asset turnover and the interaction term is significantly different from zero.

Since Ang, Cole and Lin (2000) argue that agency costs are inversely related to total asset turnover and S corporations have higher total asset turnover, on average, than C corporations as illustrated in Table II, the stronger relation between executive compensation packages and total asset turnover for S corporations may result from greater agency costs in S corporations. This result seems counter intuitive if C corporations are perceived to have greater growth opportunities than S corporations. Theory suggests firms with greater growth opportunities will have a stronger pay-performance relation. Given that S corporations tend to be younger, smaller firms than C corporations, S corporations may simply have more potential to grow since they start from a smaller base.

To further analyze the difference between S and C corporation compensation practices, we compute predicted executive compensation levels from both model 2 and model 5 of Table III. We begin by setting all of the significant continuous independent variables equal to their mean values. Then we assume our significant indicator variables are all equal to one which assumes the firm is family owned, owner managed, the current owner is the founder and the firm operates in a metropolitan area. To provide information across alternative organizational forms, we analyze executive salaries assuming the predicted value for being organized as a C corporation is equal to the $10^{th}$, $50^{th}$ and $90^{th}$ percentile values of 0.524, 0.613 and 0.704, respectively. We chose these values to capture the impact of an increased or decreased likelihood of being organized as a C corporation. We similarly allow the performance metrics to vary across the distribution of performance observed in the sample. We set the performance variables equal to the $5^{th}$, $50^{th}$ and $95^{th}$ percentile values calculated for the sample firms.

Panel A of Table IV reports the estimates of executive salaries from model 2 in Table III utilizing ROA as the performance measure. Analyzing executive salaries for the median predicted probability for corporate status of .61 (column 2), we estimate an executive salary level equal to $185,880 for the median ROA in the sample. If we allow ROA to increase to the $95^{th}$ percentile, executive salaries increase to $202,622, a percentage increase of 9%. If ROA decreases to the $5^{th}$ percentile, executive salaries fall to $180,596, a decline of 2.8%. This suggests some downward rigidity to executive wages. Given that the interactive term is insignificant, the variation in executive salaries is constant across alternative predicted probabilities for C corporate status. However, if a firm has a higher probability of being organized as a C corporation, executive salaries are substantially higher. For example, for median ROA firms, executive salaries range from $155,920 to $222,204 as the predicted probability of being organized as a C corporation rises from 0.52 to 0.70. These results illustrate the magnitude of the pay differential between executives of C versus S corporations.

Similarly, panel B of Table IV reports executive salaries calculated from model 5 of Table III utilizing total asset turnover as the performance measure. Analyzing executive

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[10] Recall, that the corporate form indicator variable in the first stage regression equals 1 for a C corporation and 0 for a S corporation. The first stage regression estimated the fitted value associated with the probability of the firm being organized as a C corporation.

salaries for the median predicted probability for corporate status of .61 (column 2), we estimate an executive salary level equal to $185,978 for the median level of total asset turnover in the sample. If we allow total asset turnover to increase to the 95$^{th}$ percentile, executive salaries increase to $231,418, a percentage increase of 24.4%. If total asset turnover decreases to the 5$^{th}$ percentile, executive salaries fall to $178,332, a decline of 4.1%. The results in panel B of Table IV similarly illustrate the downward rigidity of wages for executives but also illustrate the greater sensitivity of compensation to total asset turnover relative to ROA for small firm executives. Allowing the predicted probability for C corporate status to vary from the 10$^{th}$ to 90$^{th}$ percentile illustrates the non-constant effect of changes in total asset turnover on executive compensation for executives. A greater probability for C corporate status reduces the sensitivity of wages to total asset turnover for privately held firms.

### 4.3. Results for independent analysis of alternative organizational forms

The two-stage least squares analysis constrains the slope coefficients of the determinants of executive compensation to be the same in both organizational forms. Assuming predictions of agency theory apply to both organizational forms, this is not a problem. However, it limits the ability to determine whether different firm characteristics are more relevant in different organizational forms. Therefore, we also provide an analysis of executive compensation in small businesses without controlling for the endogeneity of organizational form.

To determine the influence of additional firm characteristics on the sensitivity of executive compensation to performance in small privately held firms, we separate our firms based on C versus S corporate status. Since our results for total asset turnover indicate compensation practices differ across organizational forms, we show the results in Table V using total asset turnover as our proxy for firm performance.

Table V shows that the sensitivity of executive compensation to the efficient use of assets is lower for firms that have a current owner that is the founder independent of organizational form. This result is consistent with lower agency costs in firms that have owners who are founders of the firm. In C corporations, we find that the sensitivity of executive compensation to the efficient use of assets is greater for firms who are owner managed (with a coefficient estimate of 0.011) but lower for firms with greater than fifty percent family ownership (with a coefficient estimate of -0.012). Thus, if a C corporation has both an owner manager and is family owned, the net effect on the relation between compensation and total asset turnover is virtually zero. Column one of Table V shows that the interaction variables for owner manager and family ownership are insignificant for S corporations.

## V. Conclusions

In this paper we examine the hypothesis that the organizational form of small businesses influences the relation between executive compensation and alternative measures of firm performance. We draw on Holmstrom's (1979) argument that under conditions where complete monitoring is possible, the first best compensation contract (solution) will pay a fixed salary if the action desired is taken. If complete monitoring is impossible or prohibitively costly, then the second best solution suggests using imperfect estimators of an agent's actions. We employ total asset turnover and return on assets as potential proxies for an agent's actions and assess the relation between these proxies and executive compensation in S-corporations and C corporations.

Using a broad-based sample of small businesses from the 1993 National Survey of Small Business Finances, we find that firm size is positively related to executive salaries. This is consistent with the idea that larger organizations require more qualified executives due to the complexity of the job. In addition, small businesses, in general, use accounting-based firm performance measures in determining their executive compensation. We find a positive relation between both ROA and total asset turnover and executive compensation. The relation between total asset turnover and executive salaries is weaker for C corporations than for S corporations. In addition, executive salaries are positively related to more diffuse ownership, owner managers, the founder is the current owner but negatively related to firms with greater than fifty percent family ownership. Additional analysis of compensation practices for S and C corporations reveals that the sensitivity of compensation to total asset turnover is lower for firms with a current owner that is a founder independent of the organizational form. Within the sample of firms organized as C corporations, the sensitivity of compensation to total asset turnover is greater for firms that are owner managed but less sensitive for firms with greater than fifty percent family ownership.

By establishing a relation between total asset turnover and executive compensation, owners of privately held firms may be able to mitigate some agency costs. As argued by Ang et al (2000), agency costs are inversely related to total asset turnover. In general, we find that privately held firms appear to structure executive compensation in a manner consistent with aligning the interests of owners and managers to maximize the cash flows of the firm.

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## Table I

## Number of Owners in the full sample of S-Corporations and C-Corporations

| Number of Owners | S-Corporation | | C-Corporation | |
|---|---|---|---|---|
| 1 | 207 | 29% | 354 | 30% |
| 2 | 250 | 35% | 343 | 29% |
| 3 | 94 | 13% | 154 | 13% |
| 4 | 54 | 8% | 95 | 8% |
| 5 | 32 | 5% | 47 | 4% |
| 6 | 26 | 4% | 26 | 2% |
| 7 | 10 | 1% | 13 | 1% |
| 8 | 6 | 1% | 10 | 1% |
| 9 | 1 | 0% | 9 | 1% |
| 10 | 7 | 1% | 9 | 1% |
| 11-15 | 12 | 2% | 30 | 3% |
| 16-20 | 2 | 0% | 15 | 1% |
| 21-25 | 4 | 1% | 8 | 1% |
| 26-30 | 2 | 0% | 5 | 0% |
| 31-100 | na | | 28 | 2% |
| More than 100 | na | | 33 | 3% |
| Total sample | 707 | 100% | 1179 | 100% |

## Table II

Means (medians) of variables by type of corporation and for the full sample. We report the statistics for the raw numbers in this table without adjusting for natural logarithm.

| Variable | S-Corporation N=707 | C-Corporation N=1118 | Differences in Means (Medians) |
|---|---|---|---|
| Executive Salaries | 171,870 (72,000) | 178,224 (86,000) | -0.46 (-2.34**) |
| Total assets ($'s) | 2,223,013 (480,122) | 2,121,491 (533,915) | 0.47 (-0.70) |
| Firm age (years) | 15.43 (11.0) | 17.80 (14.0) | -3.47*** (-5.62***) |
| Family owned | 78.50% | 75.58% | 1.43 |
| MSA | 81.61% | 84.79% | -1.79* |
| Founder Owner | 70.30% | 67.62% | 1.20 |
| New equity | 23.34% | 18.52% | 2.49** |
| New shareholders | 3.25% | 4.83% | -1.63 |
| Owner managed | 76.66% | 75.67% | 0.48 |
| Number of owners | 2.90 (2.0) | 3.23 (2.0) | -2.01** (-0.20) |
| Profit Margin | 7.45% (4.78%) | 5.77% (2.63%) | 1.17 (5.35***) |
| Asset Turnover (times) | 5.88 (3.25) | 5.89 (3.12) | -0.01 (1.22) |
| ROA | 0.47 (0.13) | 0.38 (0.08) | 0.84 (4.52***) |
| SIC = 1 | 11.32% | 13.06% | -1.10 |
| SIC = 2 | 8.35% | 7.33% | 0.79 |
| SIC = 3 | 8.63% | 10.11% | -1.05 |
| SIC = 4 | 3.54% | 5.01% | -1.49 |
| SIC = 5 | 33.38% | 33.63% | -0.11 |
| SIC = 6 | 5.80% | 5.81% | -0.01 |
| SIC = 7 | 17.54% | 11.54% | 3.62*** |
| SIC = 8 | 11.46% | 13.51% | -1.28 |

Note: Executive Salaries equals total compensation for business executives. Family Owned equals one if 50% of the firm's equity is owned by one family, 0 otherwise. MSA equals one if the firm operates in a metropolitan statistical area, 0 otherwise. Founder Owner equals one if the firm is founded by current owner, 0 otherwise. New Equity equals one if the firm has issued new equity, 0 otherwise. New shareholders equals one if the firm has issued equity to new shareholders, 0 otherwise. Owner managed equals one if the owner manages the business operations, 0 otherwise. Profit Margin equals net income divided by sales. Asset Turnover equals sales divided by total assets. ROA equals net income divided by total assets. Industry designations include: SIC=1 for Mineral and Construction; SIC=2 and 3 for Manufacturing; SIC=4 for Transportation, Communications, and Utilities; SIC=5 for Wholesale and Retail Trade; SIC=6 for Insurance, and Real Estate (exclude Financial Services); SIC=7 for Business and Entertainment Services; SIC=8 for Health, Legal, Educational, and Social Services. The test statistics reported in the last column are the t-statistics for differences in means or z-statistics for differences in medians for a two-sided test. For the 0/1 indicator variables the test is the Wilcoxon two-sample test with reported z-statistics. ***, **, and * denote significance at the 1%, 5% and 10% confidence level, respectively.

## Table III

Two stage least squares regressions of the natural logarithm of total salary of top managers for a sample of 1825 small firms. Only the second stage equation results are shown. The models differ based on the proxy for firm performance and including interaction terms between the firm performance variable and the organizational form indicator variable.

| Models | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Intercept | 4.342*** (15.25) | 4.100*** (14.19) | 3.836*** (13.55) | 4.080*** (14.11) | 3.672*** (12.91) |
| ln(total assets) | 0.435*** (33.15) | 0.444*** (33.56) | 0.467*** (35.24) | 0.446*** (33.57) | 0.478*** (35.56) |
| Family owned | -0.166*** (-3.02) | -0.169*** (-3.07) | -0.158*** (-2.94) | -0.167*** (-3.03) | -0.155*** (-2.89) |
| MSA | 0.180*** (2.74) | 0.154*** (2.35) | 0.160*** (2.48) | 0.155*** (2.36) | 0.158*** (2.48) |
| Founder | 0.158*** (3.09) | 0.167*** (3.28) | 0.153*** (3.06) | 0.167*** (3.28) | 0.152*** (3.06) |
| Owner managed | 0.155*** (2.97) | 0.153*** (2.94) | 0.170*** (3.33) | 0.154*** (2.96) | 0.167*** (3.28) |
| Number of Owners | 0.015** (2.28) | 0.014** (2.04) | 0.014** (2.04) | 0.014** (2.01) | 0.013** (1.90) |
| Corporate form | 1.738*** (3.67) | 1.965*** (4.14) | 1.752*** (3.79) | 1.958*** (4.13) | 1.750*** (3.80) |
| ROA | | 0.039*** (4.29) | | 0.057*** (3.43) | |
| ROA * Corp form | | | | -0.026 (1.33) | |
| Profit Margin | | | 0.055 (0.75) | | 0.145 (1.27) |
| Profit Margin* Corp form | | | | | -0.151 (-1.04) |
| Asset turnover | | | 0.013*** (9.46) | | 0.025*** (7.96) |
| Asset Turnover *Corp form | | | | | -0.013*** (-4.07) |
| F-statistic | 140.42*** | 132.28*** | 132.64*** | 123.01*** | 118.29*** |
| Adjusted R-sq. | 0.478 | 0.483 | 0.503 | 0.483 | 0.507 |

Note: Family Owned equals one if 50% of the firm's equity is owned by one family, 0 otherwise. MSA equals one if the firm operates in a metropolitan statistical area, 0 otherwise. Founder equals one if the firm is founded by current owner, 0 otherwise. Owner managed equals one if the owner manages the business operations, 0 otherwise. Corporate form equals the predicted value from the first stage regression that predicts the probability that a sample firm will be organized as a C corporation or S corporation. ROA equals net income divided by total assets. Profit Margin equals net income divided by sales. Asset Turnover equals sales divided by total assets. Industry controls based on one-digit SIC codes are included in all regressions but not reported for brevity.
***, **, and * denote significance at the 1%, 5% and 10% confidence level, respectively.

## Table IV

Sensitivity of executive compensation to changes in firm performance for various predicted probabilities associated with organizational form

| Predicted Probability for C corporate status ($10^{th}$, $50^{th}$, $90^{th}$ percentile) | 0.52 | 0.61 | 0.70 |
|---|---|---|---|
| **Panel A: ROA** | | | |
| % decrease in compensation | -0.028 | -0.028 | -0.028 |
| $5^{th}$ percentile of ROA (-0.65) | 151487 | 180596 | 215888 |
| Median ROA (0.09) | 155920 | 185880 | 222204 |
| $95^{th}$ percentile of ROA (2.31) | 169963 | 202622 | 242217 |
| % increase in compensation | 0.090 | 0.090 | 0.090 |
| **Panel B: Total Asset Turnover** | | | |
| % decrease in compensation | -0.044 | -0.041 | -0.038 |
| $5^{th}$ percentile of TAT (0.71) | 152620 | 178332 | 208882 |
| Median Total Asset Turnover (3.18) | 159620 | 185978 | 217203 |
| $95^{th}$ percentile of TAT (16.01) | 201606 | 231418 | 266209 |
| % increase in compensation | 0.263 | 0.244 | 0.226 |

Note: The analysis above assumes all significant continuous variables equal the mean value in the full sample and the significant dichotomous variables are all set equal to one. Therefore, the values above assume that the firm is owner managed, the current owner is the founder, the firm is family owned and the firm operates in a metropolitan area. The predicted probability for C corporate status is based on the results from the first stage in the two-stage least squares analysis employed to account for the endogeneity of organizational form and executive compensation. Panel A reports results for ROA based on model 2 from Table III. Panel B reports results for Total Asset Turnover (TAT) based on model 5 from Table III.

## Table V

Least squares regressions of the natural logarithm of total salary of top managers for a sample of 707 S-corporations and 1118 C-corporations.

| Models | S corps | C corps |
|---|---|---|
| Intercept | 3.340*** | 4.211*** |
| | (10.37) | (15.45) |
| ln(total assets) | 0.546*** | 0.503*** |
| | (26.74) | (29.21) |
| Family owned | -0.003 | -0.248*** |
| | (-0.03) | (-3.41) |
| MSA | 0.256*** | 0.210** |
| | (2.88) | (2.84) |
| Founder | 0.463*** | 0.261*** |
| | (4.39) | (3.54) |
| Owner managed | 0.106 | 0.157** |
| | (1.11) | (2.41) |
| Number of Owners | -0.003 | 0.006 |
| | (-0.20) | (0.71) |
| Profit Margin | 0.214* | -0.030 |
| | (1.86) | (-0.34) |
| Asset turnover (TAT) | 0.082*** | 0.061*** |
| | (4.11) | (4.43) |
| TAT * family | 0.005 | -0.012* |
| | (0.76) | (-1.75) |
| TAT * founder | -0.063*** | -0.048*** |
| | (-3.65) | (-4.58) |
| TAT * owner managed | 0.001 | 0.011*** |
| | (0.13) | (3.05) |
| TAT * number of owners | 0.004 | 0.003 |
| | (1.44) | (1.64) |
| F-statistic | 53.04*** | 72.08*** |
| Adjusted R-sq. | 0.556 | 0.520 |

Note: Family Owned equals one if 50% of the firm's equity is owned by one family, 0 otherwise. MSA equals one if the firm operates in a metropolitan statistical area, 0 otherwise. Founder equals one if the firm is founded by current owner, 0 otherwise. Owner managed equals one if the owner manages the business operations, 0 otherwise. Corporate form equals the predicted value from the first stage regression that predicts the probability that a sample firm will be organized as a C corporation or S corporation. Profit Margin equals net income divided by sales. Asset Turnover equals sales divided by total assets. Industry controls based on one-digit SIC codes are included in all regressions but not reported for brevity.

***, **, and * denote significance at the 1%, 5% and 10% confidence level, respectively.