

Compensation Consultants, CEO Pay, and the Disappearing Union Effect

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Abstract

We document that the well-established research finding of a negative relation between union strength and the level and structure of executive compensation has disappeared in recent years. Driving this trend is the decline in union participation along with the emergence of compensation consultants. Firms with higher unionization rates tend to engage consultants, suggesting their possible strategic role in justifying higher pay. Consultant-using firms are associated with greater CEO option compensation and risk-taking incentives that are unaffected by union intensity. Unlike prior unionization literature, we identify an insignificant (significantly negative) union effect on corporate cash holdings among consultant-using (no-consultant) firms, respectively.

Consultants and Boards of Directors remain unaccountable, while CEO pay continues to reach dizzying heights. Last year, the average S&P 500 CEO received almost \$15 million in compensation, a 9 1/2 percent hike from 2005. Directors overcharged with seeing and protecting investors and forcing and negotiating arms-length pay packages seem resigned to a pay-for-failure status quo. Two-thirds of directors believe 'that their boards are having trouble controlling the size of CEO compensation.

[Statement of Daniel Pedrotty, Director of the Office of Investment at the AFL-CIO] ¹

1. Introduction

The impact of union presence on executive compensation choices and corporate financial decisions has attracted a great deal of attention in the economics, finance, and accounting literatures. It is noteworthy, however, that the sample period employed by much of this literature has also been characterized by a remarkable decline in the membership and clout of private sector unions. In particular, private sector union membership that was close to 30% in the 1940s and 1950s (Kopf 2019), has declined to about 10.8 percent by 2020 (U.S. Bureau of Labor Statistics).² Wallerstein and Western (2000) note a similar decline of unionization rates in other industrialized economies beginning in the 1980s.³ The decline in the overall membership of unions and, hence, the possible erosion of union influence on corporate policies has received surprisingly scant attention in the academic literature. The downward trend in private sector unionization raises several questions: Are unions still relevant for executive compensation and corporate policies? Is there a mechanism that contributes to their loss of influence, even at unionized firms? Our objective in this paper is to address these questions and to provide new insights on how the multi-decade decline in labor union participation affects the findings of prior unionization research.

The impact of union presence on executive compensation has attracted particular attention in the unionization literature. As Jacoby (2020) points out, limiting the pay gap between executives and

¹ Executive Pay: The Role of Compensation Consultants. Hearing before the Committee on Oversight and Government Reform, December 5, 2007, Serial No. 110-113. Accessed at <http://www.gpoaccess.gov/congress/index.html>.

² <https://www.bls.gov/news.release/union2.nr0.htm>.

³ “Although the average level of unionization dropped just three points between 1980 and 1992, some countries suffered spectacular declines. Falling unionization was especially severe in the English-speaking countries. Union density fell by 20 points in New Zealand, by 15 points in the United Kingdom, by 12 points in Australia, and by 10 points in Ireland and the United States,” Wallerstein and Western (2000, pp. 357-358).

rank-and-file workers became labor's "signature issue" beginning in the 1990s. In support of the premise that unionized firms strategically decrease executive compensation in order to gain bargaining advantage over unions, Huang, Jiang, Lie and Que (2017) document a negative association between union presence and CEO total compensation based on the 1992-2011 sample period. They show that it is primarily the lower equity component that accounts for lower CEO pay in unionized firms. In the paper we investigate whether the decline in private sector unionization is accompanied by a loss in influence over executive compensation.

We begin our study by examining trends in union presence in public firms in the US. Our sample reflects the decline in private sector unionization over 1992-2018. The average unionization rate among sample firms, drawn from the Execucomp database, declines from about 18 percent in 1992 to about 7 percent in 2018. In line with the findings of Huang et al. (2017), we also document a significant negative association between unionization rates with CEO total compensation and with firm-related equity holdings over the 1992-2005 period. However, consistent with a decline in union clout, these coefficient estimates become non-negative and statistically insignificant over the latter half (2006-2018) of our sample period.

Our evidence suggests that the emergence of compensation consultants in recent years could have played a key role in the loss of union influence on executive compensation. Based on evidence from union-sponsored shareholder proposals, unions appear to have an unfavorable view of CEO pay at consultant-using firms but appear to have little influence on the compensation policies of these firms. In contrast, while unions do not frequently target no-consultant firms for compensation issues, the market's significantly negative response to their proposals for these firms suggests a much stronger degree of union influence. Consistent with the premise that unionized firms use consultants to justify higher CEO pay, our results suggest that firms with higher unionization rates are significantly more likely to engage a compensation consultant except when the firms are located in states with strong pro-

labor environments. Therefore, since upwards of 76% of firms use compensation consultants, unions have been largely unable to curtail the use of compensation consultants except in limited locations where the labor environment remains favorable to union interests. Specifically, our results indicate a positive association between a firm's *Unionization rate* in a given year and employment of a consultant in the next year. This suggests that firms may strategically use compensation consultants to offset greater union presence in the firm. However, the impact of the *Unionization rate* on consultant hiring is moderated by location-based metrics of union strength. For instance, we find that firm location in a less favorable environment for unions, e.g. location in a right-to-work state, strengthens the effect of unionization on consultant hiring. Likewise, alternative measures of the local environments' support of labor unions significantly moderate the association between the unionization rate and consultant use.

For the subset of firms that do not use a consultant, increasing union presence is associated with lower executive option compensation and CEO risk incentives. In contrast, the unionization rate is unrelated to CEO compensation components or risk incentives among consultant-using firms. These results hold in a multivariate framework, demonstrating that union inability to curtail consultant use coincides with a diminished union effect on the magnitude and structure of executive compensation, particularly with respect to the equity incentive component.

Our results suggest that the lack of a compensation consultant is an indicator of union bargaining strength. Consistent with the hypothesis that managers use discretionary cash holdings to strategically increase their bargaining advantage and shelter income from union demands, Klasa, Maxwell, and Ortiza-Molina (2009) document a significantly negative cross-sectional union effect on corporate cash holdings using data over 1983-2005. To the extent that the use of a consultant indicates a loss of union influence, it is plausible that the use of consultants would likewise be associated with less strategic use of cash holdings while managers of no-consultant firms may continue to use cash

holdings strategically in the face of strong unions. Our reexamination of Klasa et al.'s (2009) results support this premise, where we identify a negative (insignificant) union effect on cash holdings among no-consultant (consultant-using) firms, respectively.

Our results contribute to the labor union and compensation consultant literatures in several important ways. First, to the best of our knowledge, this study provides novel empirical evidence of declining union influence on CEO contracting. Despite evidence of steadily diminishing union participation in the labor force, extant work appears to maintain that labor unions remain significant stakeholders that continue to hold sway over corporate policies. Because executive compensation is a key indicator of the contrasting objectives between unions and management, our findings of a diminishing union effect on CEO compensation also suggests declining union effects on other corporate policies reported by prior unionization research. Second, our results contribute to a nascent compensation consultant literature by indicating that union presence could play an important incremental role in the choice to engage a consultant, independent of additional economic and corporate governance characteristics. Our findings suggest that while firms may engage consultants in order to justify high CEO pay in the face of a strong union, unions also leverage their environment to curtail the use of consultants. Third, we demonstrate that the outsourcing of compensation policy to consultants in recent years could contribute to a weakening of the union effect on executive compensation. More broadly, however, the presence of consultants serves as an indicator of eroding union bargaining power that potentially extends to other corporate policies. As such, our findings raise questions about the robustness of results documented by prior research to a contemporary period. To this end, we examine the effect of union bargaining strength on the cash holdings of unionized firms. While our results likewise demonstrate a fading union effect on cash holdings in a contemporary period, a strong union effect persists within the no-consultant subset of firms where unions maintain their influence.

We organize the paper as follows. Section 2 reviews the relevant unionization literature, while Section 3 discusses our empirical approach. Section 4 discusses our results, while Section 5 concludes.

2. Literature Review

2.1 Union monitoring and strategic response explanations

There are two (not necessarily mutually exclusive) rationales used in the unionization literature to explain a significant union effect on corporate policies. The ‘union monitoring’ view is based on the premise that because union workers’ contractual wages and benefits exhibit payoff characteristics similar to those of risky debt (Faleye, Mehrotra and Morck, 2006). As a result, unions are expected to attempt to influence firms to adopt lower risk corporate policies. Consistent with this, Connolly, Hirsch and Hirschey (1986) show that higher unionization reduces R&D-to-sales sensitivity, while Hirsch and Link (1987) find that unionization lowers innovative activities. Chyz, Lueng, Li and Rui (2013) show that unions do not favor aggressive tax strategies, while Chen, Kacperczyk and Ortiz-Molina (2011) find the cost of equity of unionized firms is higher because unions inhibit operating flexibility. Consistent with this stream of research, our findings show that the decline in unions is associated with an increase in CEO risk-taking incentives in the form of option grants.

A second research stream motivated by the ‘strategic response’ hypothesis argues that managers use corporate policies to manage union perceptions of competitiveness and profitability in order to gain a collective bargaining advantage.⁴ Klasa, Maxwell and Ortiz-Molina (2009) argue firms hold less cash when unionization is high, while DeAngelo and DeAngelo (1991) show that steel manufacturers significantly reduce dividends prior to union negotiations. Chino (2016) show that the strategic use of dividend payout policy varies according to firm profitability. Bronars and Deere (1991)

⁴ For example, early work documents a negative relation between unionization rates and firm value due to lower productivity and higher production costs (Clark, 1984; Ruback and Zimmerman, 1984; Addison and Hirsch, 1989; Vedder and Gallaway, 2002).

show firm increase debt to shelter income from union demands. In a similar vein, Matsa (2010) provides evidence that managers strategically use debt financing to improve their bargaining position. Additionally, Hilary (2006) and Bova (2013) find that firms disclose less information when faced with strong union presence. In our paper, we show that a decline in union influence is associated with firms increasing their holdings of cash.

2.2. Unionization, executive compensation, and compensation consultants

Unions have a long-standing interest in executive compensation that is motivated by manager-worker wage inequality and discussed in Jacoby (2020) and Jensen and Murphy (1990). In part, unions are motivated to curb what they perceive to be excessive executive compensation since it might put their members and benefits at risk (Faleye et al. 2006),⁵ Following the ‘strategic response’ rationale, Huang et al. (2017) argue that unions use the level of CEO compensation to gauge the firm’s well-being. Banning and Chiles (2007) show that union presence is negatively correlated with total CEO compensation using Fortune 500 firms, while Gomez and Tzioumis (2011) illustrate that the negative correlation is primarily driven by option compensation. The union opposition to executive options is tied to the concern that options promote a lack of caution in CEOs (e.g., Wowak, Mannor and Wowak, 2014). While unions cannot bargain over executive compensation in the United States, they have a lengthy history of opposing option compensation through the shareholder proposal mechanism.⁶ Jacoby (2020) argues that unions were early proponents of expensing of option compensation. The AFL-CIO closely monitors executive compensation (Farber, Jung, Lee and Yi 2012), and labor unions

⁵ As an example, General Electric faced such a shareholder proposal in its 2010 proxy to request a review of GE’s top executive compensation policies. The proposal sought to promote such issues as a comparison of the total compensation package of GE’s top executives and its lowest paid employees in the U.S. between 2000 and 2009, rationales for such gaps, the trend in this gap over time, and a greater equity between the two groups as the goal.

⁶ For example, the Carpenter Pension Fund (www.carpenters.org/key-activism-issues/) notes that executive compensation is a key activism issue: “The lack of option expensing can promote excessive use of options in a company’s compensation plans, obscure and understate the cost of executive compensation and promote the pursuit of corporate strategies designed to promote short-term stock price rather than long-term corporate value.”

are prolific sponsors of shareholder proposals addressing CEO compensation (Ertimur, Ferri and Stubben, 2010; Del Guercio and Woidtke, 2012 and Agrawal 2012).

Along with lower union presence, anecdotal evidence and academic research attributes growing CEO pay levels to the use of compensation consultants who rely on peer benchmarks to establish ‘external equity’.⁷ According to Murphy and Sandino (2020), 78 percent of the firms in the Execucomp database employed at least one compensation consultant in 2006, reaching 86 percent by 2014. Compensation consultants advise the compensation committee in the design of executive compensation (Brancato, 2002; Cadman, Carter and Hillegeist, 2010). This guidance from the compensation consultant enables boards and management to ensure that shareholders’ interests are aligned with their executives’ compensation (e.g., Bebchuk and Fried, 2006; Cadman et al., 2010; Conyan, Peck and Sadler, 2009). In addition, many executive compensation consultants provide non-executive compensation consulting services to the firm, including such services as pension plan advice (Cadman et al., 2010). However, other studies argue that boards retain compensation consultants to justify higher executive pay, and find higher executive compensation levels of firms with compensation consultants (e.g., Gohl and Gupta, 2010; Murphy and Sandino, 2010; Murphy and Sandino, 2020). Because the use of peer groups in the compensation-setting process is common in the U.S. (Bizjak, 2008), and since compensation consultants can significantly influence the selection of the peer group, the retention of compensation consultants allows compensation committees to justify higher executive pay if compensation consultants employ highly paid peer groups (Faulkender and Yang, 2010).⁸ Murphy and Sandino (2015) demonstrate that firms that start to use compensation

⁷ For example, Clifford (2017) notes “Through the 1970s - when the ratio of CEOs’ pay to that of the average worker was much lower, at somewhere between 20:1 and 30:1- the lodestar was ‘internal equity,’ or how an executive’s pay compared with that of other employees in the company. A nascent industry, executive-compensation consulting, changed this. Consultants recommended switching to ‘external equity,’ meaning compensation would be based on what other CEOs were paid.”

⁸ As Clifford (2017) notes, “The [compensation] committee begins its annual work of achieving external equity by approving a peer group - companies that are supposedly comparable in size and complexity - recommended by management or compensation consultants.”

consultants do not increase executive pay more vs. firms without compensation consultants – the difference in pay between these two groups originates before the hiring of compensation consultants. Our evidence indicates that compensation consultants are associated with little union ability to influence executive compensation.

3. Data, Labor Market Trends, and Hypotheses

3.1. Data and empirical approach

The unionization literature commonly uses industry-level unionization rates to gauge union bargaining power at the firm level (e.g., Klasa, Maxwell and Ortiz-Molina, 2009; Chen, Kacperczyk and Ortiz-Molina 2011, 2012; Huang, Jiang, Lie and Que, 2017; Chino, 2016). Unionization at the industry level reflects historical factors and industry attributes as well as a spillover effect due to the threat of union-organizing activity in one firm increasing the threat of unionization in other firms within the same industry (e.g., Bronars and Deere, 1994). Following extant research, we obtain the Census Industry Classification-level unionization rate from the Union Membership and Coverage Database (www.unionstats.com) maintained by Barry Hirsch and David Macpherson using information from the Bureau of Labor Statistics' monthly Current Population Survey beginning in 1983.⁹

We base our analyses on the population of firms in the Execucomp database (excluding utilities and financial firms). We follow the methodologies described by Core and Guay (2002) and Guay (1999) to calculate yearly CEO portfolio vega of equity grants, restricted stock grants, and exercisable, unexercisable, and current option awards. Following related work (e.g., Coles et al., 2006), CEO vega

⁹ The CIC-level unionization rate converts to the SIC or NAICS level using crosswalks maintained by the US Census Bureau (<https://www.census.gov/topics/employment/industry-occupation/guidance/code-lists.html>). Prior to 2002, the CIC industry code converts to 3- or 2-digit SIC industry codes. In 2002, the crosswalk changed to NAICS industry codes with minor revisions to the industry definitions in 2007 and 2012.

is based only on options.¹⁰ We compare the effect of unions in the first half of our sample (1992-2005) to the latter half (2006-2018). We cluster the robust standard errors at the CIC-industry level in all of our cross-sectional tests.

We obtain compensation consultant information from the Institutional Shareholder Services (ISS) Incentive Lab database. Following prior work (e.g., Chu, Faassee and Rau, 2018; Cho, Hwang, Hyun and Shin, 2020) we distinguish multiservice from specialist consultant firms. Along with the key unionization rate explanatory variable, we broadly follow the empirical specification of Chu et al. (2018) that studies the determinants of consultant choice. The control variables include financial items, CEO pay characteristics, and CEO and board characteristics from the Compustat, Execucomp, and BoardEx databases, respectively.

3.2. Labor market trends

Hirsch (1980) develops an economic framework where the equilibrium level of unionization results from the demand and supply of union services. Within this framework, labor market characteristics affect the benefits from unionization and the costs of union organizing. Hirsch (1980) argues that non-white workers, male workers, and blue-collar workers are likely to derive more benefit from unionization. At the state level, right-to-work (RTW) legislation negatively affects union membership by allowing workers to enjoy the benefits of unionization without incurring membership dues, while higher growth in the labor force could reduce demand through higher worker mobility.

Figure 1 provides trends in location-based labor market characteristics for firms in the Execucomp database (excluding utilities and financials) over 1992-2018. Prior research (e.g., Huang et al., 2017; Klasa et al., 2009) uses the Compustat data item STATE to examine the location-based effect of state right-to-work legislation on union bargaining power. STATE identifies the most recent

¹⁰ We use the “deltavega_2013” SAS code provided by Lalitha Naveen to calculate the CEO vega and firm related wealth measures used in subsequent analysis (https://sites.temple.edu/lnaveen/files/2020/11/deltavega_2013.txt).

location of the firm’s headquarters. Since this location may change over time, we collect 10-K mailing addresses to identify the historic business location for each firm and replace STATE with the mailing address location if different.¹¹ We gather state-level unionization information from the US Bureau of Labor Statistics Geographic Profile of Employment and Unemployment data archive, which provides total (public plus private) unionization rates for each state-year beginning in 1997.¹² Trends in characteristics associated with lower demand for union services include higher percentages of female workers (46.2 percent to 46.9 percent), white-collar workers (30.2 percent to 40.9 percent), and locations in states with right to work legislation (18.8 percent to 37.7 percent).¹³ Conversely, there are increasing percentages of non-white workers (16.4 percent to 22.8 percent) and state-level labor growth rates (1.2 percent to 0.6 percent) that are associated with higher demand for union services. Overall, Figure 1 portrays a changing work force dynamic characterized by less demand for unionization as reflected by the continuous decline in the unionization rate (17.9 percent in 1992 to 6.6 percent in 2018.)

Table 1 provides summary statistics for the unionization rate and key dependent variables that appear in the cross-sectional analyses. As Table 1 demonstrates, the CIC-level unionization rate declines from an average of 11.6 percent over the 1992-2005 period to 7.4 percent over 2006-2018. The most heavily unionized firms in the sample drive the decrease, where the third quartile decreases from 15.8 percent to 9.7 percent. Figure 2 illustrates trends for firms in the top-50 and bottom-50 unionized industries among the 306 CIC industries in our primary Execucomp-based sample. Over the 1992-2018 period, firms in the most (least) heavily unionized industries experience a steady decrease in unionization from 26.2 percent (4.2 percent) in 1992 to 15.5 percent (1.4 percent) in 2018,

¹¹ As Marciukaityte (2015) points out, a firm may have facilities in other states other than its headquarter location. Therefore, findings based on state headquarter location are likely to be conservative estimates.

¹² <https://www.bls.gov/opub/geographic-profile/archive.htm>.

¹³ We use the “Managerial and Professional Specialty” category in Table 15 of the Geographic Profile to calculate the percent of “white collar” workers. In 2003, this category expanded to “Management, Professional, and Related Occupations”, resulting in the jump from 2002 to 2003 in Figure 1.

respectively. At the same time, state location-based total unionization rates also decline. For the firms in the top 50 most unionized industries, the state-level total (public plus private) unionization rate declines from 16.6 percent in 1992 to 11.6 percent in 2018. For firms in the 50 least unionized industries, the state-level unionization rate declines from 15.3 percent to 11.8 percent. Thus, to the extent that state pro-labor laws and policies drive the total state-level unionization rate, Figure 2 not only depicts a steady decline in union participation at the firm level, but also in the external unionization environment in which the firms are located.

3.3 Hypotheses

As reported by Elson and Ferrere (2013) and Murphy and Sandino (2020), the use of peer comparisons for formulating top executive pay results in higher CEO compensation levels, based on targeting the 50th, 75th, or 90th percentile of the peer group (e.g., Faulkender and Yang, 2010). As a result, Chu et al. (2018, p. 4927) conclude “CEO pay levels at firms that use compensation consultants are economically and statistically significantly higher than those at firms that do not use consultants.” Consistent with these findings, in a Hearing before the Committee on Oversight and Government Reform on December 5, 2007, Daniel Pedrotty (Director of the AFL-CIO’s Office of Investment) stated, “A recent study confirms investors’ worst suspicions. Companies that use comp consultants tend to pay their CEOs higher salaries without better performance.” While compensation packages designed by external consultants potentially conflict with union objectives to reduce the CEO-worker pay gap and maximize the utility of their member constituents, the use of consultants has proliferated in recent years. As Murphy and Sandino (2020) document, the percentage of all Execucomp firms using consultants increased from 78% in 2006 to 86% in 2014, while Novick (2019) states “nearly 90% of large companies use compensation consultants.” Secular decline in union participation, combined with an incentive for unionized firms to use consultants to justify higher CEO pay, broadly suggests that unions might have little sway over the use of consultants.

Prior findings demonstrate that unions are more likely to achieve their objectives in pro-labor locations. For example, Bradley, Kim and Tian (2017) use National Labor Relations Board union election result data over 1980-2002 and a regression discontinuity design approach to study the effects of election outcomes on firm innovation activities. While they identify a negative effect of unionization on innovation in both manufacturing and non-manufacturing industries, the effect is statistically insignificant in firms located in states with right-to-work legislation where unions have less power to expropriate rents. Similarly, Huang et al. (2017) show that the impact of unionization on CEO equity compensation lessens in states with RTW legislation, while Marciukaityte (2015) demonstrates that the strategic use of debt in unionized firms is concentrated in states without RTW laws. Collectively, this stream of research suggests that unions' ability to exercise greater control over corporate decision-making is concentrated in locations that complement union bargaining power.

From a board's perspective we conjecture that there are certain considerations at play with regard to the hiring of compensation consultants. The first is that firms' boards might be able to argue that the consultant's compensation recommendations are at least somewhat independent, and responsive to industry conditions. This could moderate the effect of unions on the executive compensation structure. While boards might prefer to not outsource compensation terms to an outside party, the incentive contracts offered to executives in highly unionized firms with no consultants might be more distorted, with weaker executive incentives. It follows that firms with greater union presence might be more likely to opt to use consultants. At the same time, it is plausible that when union strength is high, possibly because of state level legislation, the unions may have sufficient influence with the board of directors to preclude the possibility of hiring a consultant. These arguments motivate

Hypothesis 1:

H1: The strength of the labor environment moderates unions' ability to deter unionized firms from using consultants.

Compensation consultants could directly contribute to a loss of union influence over compensation decisions because they enable firms to externalize pay choices to outside experts. Following *Hypothesis 1*, a unionized firm’s choice to use a compensation consultant is an indicator of declining union ability to influence corporate decisions including compensation policy. To the extent that the use of a consultant represents diminished union influence, compensation components should not vary in union intensity among consultant-using firms. In contrast, the lack of a consultant connotes greater influence that enables strong unions to affect CEO contracting. Following the findings of prior compensation consultant research, CEO pay and risk-taking incentives linked to equity compensation should be lower among these firms. Further, to the extent that unions continue to influence compensation policy decisions among no-consultant firms, greater union bargaining strength should be associated with lower levels of CEO pay, particularly with option compensation. These arguments motivate *Hypothesis 2* as follows:

H2: Compensation consultants reduce union say over CEO compensation arrangements.

4. Union Membership Rates, Executive Compensation, and Compensation Consultants

4.1. The disappearing union effect on CEO compensation

We begin our empirical analyses by reexamining Huang et al.’s (2017) empirical results using their regression specification as follows:

$$\begin{aligned}
 \text{CEO total compensation}_{i,t} = & \alpha_0 + \alpha_1 \text{Unionization rate} + \alpha_2 \text{Firm size}_{i,t} + \alpha_3 \text{Stock return}_{i,t} + & (1) \\
 & \alpha_4 \text{Lagged stock return}_{i,t} + \alpha_5 \text{ROA}_{i,t} + \alpha_6 \text{Lagged ROA}_{i,t} + \alpha_7 \text{Lagged leverage}_{i,t} + \alpha_8 \text{Lagged book} - \\
 & \text{market}_{i,t} + \alpha_9 \text{Lagged cash flow volatility}_{i,t} + \alpha_{10} \text{Lagged capital expenditure}_{i,t} + \\
 & \alpha_{11} \text{Lagged tangibility}_{i,t} + \alpha_{12} \text{Lagged sales growth}_{i,t} + \alpha_{13} \text{Lagged R\&D}_{i,t} + \alpha_{14} \text{Log}(1 + \text{CEO tenure})_{i,t} + \\
 & \alpha_{15} \text{CEO chair} + \text{Industry fixed effects}_j + \text{Year fixed effects}_t + e_{i,t}
 \end{aligned}$$

Table 2 provides least squares estimates for Equation 1. Huang et al. (2017) report a significant negative *Unionization rate* coefficient estimate using logged (1 plus) CEO total compensation (Execucomp item TDC1) as the dependent variable. For direct comparability to their estimates based

on 1992-2011, we present their reported results in Column 2. In Model 1, our -0.635 *Unionization rate* estimate over the 1992-2005 period is qualitatively similar in magnitude and statistical significance to the -0.737 estimate reported by Huang et al. (2017). The coefficient estimates for the additional control variables are quantitatively and qualitatively similar to the results reported by Huang et al. (2017). However, Model 2 demonstrates that this effect dissipates over the 2006-2018 period, where the *Unionization rate* estimate is positive and statistically insignificant. The final row of Table 2 illustrates that the *Unionization rate* coefficient estimates in Models 1-2 are statistically different at the 1 percent level.

Huang et al. (2017) subsequently show that the equity component of compensation drives the total compensation effect. We examine the union effect on logged (1 plus) the equity component of annual CEO compensation estimated over the 1992-2005 and 2006-2018 periods. We present these estimates in Table 2 Models 3-4. The results illustrate that the negative -0.560 *Unionization rate* estimate over 1992-2005 becomes positive (0.912) over 2006-2018. These estimates are significantly different at the 1 percent level. Finally, we repeat this analysis by replacing annual equity compensation with the aggregate value of managerial equity incentives (*Firm related wealth*), defined as the logged sum of (1 plus) the value of the stock and option portfolio held by the CEO. As in the prior analyses, segmenting the sample period into 1992-2005 (Model 5) and 2006-2011 (Model 6) sub-periods reveals a stronger negative *Unionization rate* effect in the earlier period, where the *Unionization rate* coefficient estimate of -1.307 ($p=0.000$) in the former period declines to -0.662 ($p=0.106$) in the latter. While these estimates are not significantly different at conventional statistical levels, it is clear that union influence on CEO compensation, including the use of equity incentives, has diminished over time.

To add additional insight to the compensation results in Model 1, we estimate Equation 1 for each year to examine the variation over time in union influence. We estimate the *Unionization rate*

coefficient estimate for each year logged TDC1 as the dependent variable and plot rolling five-year averages in Figure 3. To better characterize the average effect over time, we smooth the time series plot with the locally estimated scatterplot smoothing (LOESS) curve (e.g., Cleveland, Devlin and Grosse, 1988). As Figure 3 depicts, the magnitude of the negative *Unionization rate* coefficient estimates gradually declines, reaching an estimated effect of approximately zero by 2005.

4.2 *The emergence of compensation consultants*

A limited body of research on the association between compensation consultants and executive compensation begins in 2006, following the SEC's adoption of Item 407 of Regulation S-K in 2006 in response to a commonly held perception that consultants contribute to excess executive pay.¹⁴ Item 407 required publicly traded firms to disclose compensation consultants' role in determining or recommending the amount or form of executive and director compensation, and whether the advice posed any conflict of interest. While initial research on the impact of compensation consultants on executive compensation levels provides mixed findings, perhaps due to small sample sizes, recent work provides a clearer picture. For example, Chu et al. (2018) find that CEO pay levels at firms that use compensation consultants are economically and statistically significantly higher than those at firms that do not use consultants, while Conyon, Peck and Sadler (2009) report that the proportion of equity-based compensation is greater among firms that use consultants. In a similar vein, Murphy and Sandino (2020) show that the positive association between consultant use and CEO pay is robust to firm fixed effects and over time. To the extent that unions may associate the use of consultants with a higher CEO-worker pay gap, it is plausible that unions would seek to curtail the use of compensation consultants.

¹⁴ For example, CFO Magazine (<https://www.cfo.com/compensation/2020/06/high-fees-for-exec-comp-consultants-a-tipoff-to-sumptuous-ceo-pay-study/>) notes, "With high CEO pay a decades-long source of agitation among observers of corporate management, it is no surprise that there has been much finger-pointing at the army of executive-compensation (EC) consultants that companies look to for guidance on the matter."

4.3 Do unions associate compensation consultants with excess CEO pay?

An important preliminary question underlying *Hypothesis 1* is whether unions view CEO pay unfavorably among consultant-using firms. To answer this question, we examine unions' use of the shareholder proposals among firms that do (do not) use a consultant. Unions have a longstanding history as prolific shareholder activists (e.g., Karpoff, 2017). Consistent with their interest in executive compensation, unions have frequently used the proposal mechanism to express their views on CEO pay. Indeed, Thomas and Martin (1998) maintain that labor unions are particularly well suited to monitor executive compensation plans because they have access to information that other institutional investors do not have. However, it is plausible that instead of playing a monitoring role, unions use compensation-related proposals as means of improving their bargaining position. Nevertheless, Ertimur, Ferri and Muslu (2010) provide suggestive evidence that unions contribute to monitoring CEO compensation. They find that unions are as likely to target unionized firms as other shareholder proponents. Further, they report that among unionized targets, the likelihood of receiving a union-sponsored proposal is unrelated to the percentage of unionized employees, ongoing negotiations over collective bargaining agreements, or the presence of labor-related disputes.

We examine shareholder proposals sponsored by unions and labor-affiliated institutions drawn from the ISS Shareholder Proposal database, which covers all shareholder resolutions for Russell 3000 firms. Overall, there are 1,266 unique governance-related proposals sponsored by unions or labor-affiliated institutions (e.g., LongView Collective Investment Funds and Amalgamated Bank) available from the ISS Shareholder Proposal file. Table 3 Panel A provides the frequency of targeting at the proposal and firm-year levels after intersecting these proposals with the ISS Incentive Lab file. For the 2006-2018 period, there are 1,051 governance-related proposals corresponding to 826 firm-years with available compensation consultant information. Of these observations, 440 proposals associated with 378 firm-years address compensation issues, while the remaining 611 proposals (448 firm-years)

concern other governance issues (board, voting, antitakeover, and miscellaneous). Appendix Table 1 provides a detailed breakdown of the 1,051 governance-related proposals that appear in the sample.

Merging the 826 union-targeted firm-years with the Execucomp dataset (excluding utilities and financials) results in 9,371 targeted and untargeted firm-years with available consultant information. As Table 3 Panel B illustrates, 804 of these firm-years do not use a consultant while 8,567 firm-years engage a consultant. Unions rarely target no-consultant firms for compensation issues. Of the 4.9 percent of firm-years targeted for governance reasons, only 1.2 percent are for compensation-related issues. In contrast, of the 9.2 percent of consultant-users targeted for governance reasons, 4.3 percent are for compensation-related issues. The proportions of firms targeted for compensation-related reasons between these two subsets are significantly different at the 1 percent level.¹⁵ In Panels C-D, we sort the no-consultant and consultant-using firm-years by the unionization rate at the targeted firm. In both Panels, higher proportions of unionized workers motivates non-compensation related proposals, where the targeting intensity for top unionization quartile firm-years is significantly greater. In Panel C, union interest in executive compensation at no-consultant firms is not significantly different between the top and bottom quartiles. In contrast, Panel D demonstrates that union interest in CEO pay significantly increases in the unionization rate for firms with consultants, where the proportions of targeted firms increases from 3 percent to 5.2 percent. These proportions are statistically different at the one percent level.

Following the premise that unions more effectively exert their power in locations that facilitate union pressure (e.g., Bradley et al., 2017), we examine if the external unionization environment interacts with the frequency of union targeting among consultant-users. We measure the strength of the union environment using the state-level total (public plus private) unionization rate from the

¹⁵ We find that unions also directly target the use of consultants. There are 19 union-sponsored proposals addressing “disclose information on compensation consultant” from 2007-2010. Ten of these proposals were withdrawn prior to the annual meeting.

Bureau of Labor Statistics Geographic Profile data archive for each state-year as an aggregate measure of the strength of the labor environment. We match this location-based measure to each firm-year in our sample using the headquarter location. We bifurcate the sample around the median state total unionization rate and sort each subset by the industry unionization rate. Table 3 Panel E (Panel F) provide results for the below-median (above-median) subsets, respectively.¹⁶ In Panel E, unionization intensity is statistically unrelated with the frequency of compensation-related proposals when the firms are located in weak union locations. However, consistent with prior findings reporting that unions leverage their location to achieve their goals, Panel F demonstrates the frequency of targeting in the top unionization rate quartile is significantly different from the bottom quartile in the strong location subset.

Table 3's results raise a further question: does the use of a consultant have a bearing on the market response to news of the proposals? As Ertimur et al. (2011) discuss, unions broadly view activism as a means to initiate dialogue with boards and increase their involvement with strategic decisions that affect the value of the firm. At the same time, unions' dual role as collective bargaining agents and as shareholders introduces the possibility that their activism may be for non-wealth-maximizing reasons. While Ertimur et al. (2011) fail to find evidence that unions engage in activism to increase their bargaining advantage over targeted firms, the market may associate the underlying motives for union activism as inconsistent with shareholder wealth maximization, particularly for proposals addressing CEO compensation. While Ertimur et al. (2015) find no relation between compensation-related activism and future changes in excess CEO pay, they do not examine if compensation consultants play an underlying role in the lack of an association.

¹⁶ According to the Bureau of Labor Statistics' Union Members Summary (2021), all states in the East South Central and West South Central divisions had unionization rates below the national average (10.8 percent), while all states in the Middle Atlantic and Pacific divisions had rates above the national average.

While our results in Table 3 indicate that union compensation proposals are much more frequent at consultant-using firms, it is plausible that firms with consultants are also less likely to respond to compensation proposals to the extent that these firms are unlikely to incorporate union views into their advice. In other words, we would not expect the market to respond significantly to proposals that use a consultant. We investigate this premise in Table 4. Following prior research, we examine the market's initial reaction to compensation proposals using standard event study methodology. We reduce the primary proposal-level sample to one firm observation per issue date if there are multiple proposal observations in a given firm-year and center the event returns on the proxy mailing date. We report mean and median market model cumulative abnormal returns (CARs) for the (-1,+1) window surrounding the proxy mailing date using the equal-weighted market index and report the cross-sectional standardized z -statistic (Boehmer, Musumeci and Poulsen, 1991) along with the non-parametric rank test z -statistic (Corrado, 1989) to ensure that the results are not unduly influenced by outliers. Table 4 Panel A provides results for the small subset of no-consultant firms. Consistent with the view that the market associates unions having greater leverage over the compensation decisions of firms that do not engage a consultant, the mean -2.45 percent CAR is negative and significantly different from zero at the 5 percent level using both parametric and non-parametric test statistics. In contrast, Panel B1 reports a small mean CAR of 0.11 percent that is statistically insignificant for firms with consultants. In Panel B2, we create subsets of consultant-using firms based on unionization rate quartiles. The CARs for each quartile remain small and statistically insignificant, indicating that the market views union proposals at consultant-users as inconsequential, irrespective of the proportion of unionized workers at the targeted firm.

The results in Table 4 Panel A support the idea that unions significantly affect compensation policies through shareholder proposals when the target firm does not use a compensation consultant. The negative market response is consistent with unions' underlying incentives to reduce firm risk and

narrow the CEO-worker pay gap. However, to the extent that the lack of a consultant could also be an indicator of greater union influence, the market response to these proposals may broadly reflect the effect of union activism rather than the specific compensation-focused content of the proposals. Indeed, Table 3 Panel B provides evidence that while unions significantly target consultant-using firms more frequently for compensation-related issues, they also target these firms more intensively for non-compensation issues albeit at a lower significance level. To distinguish if the market reaction to compensation-related proposals is distinct from the response to other governance-related union proposals, we repeat the event study analysis for the non-compensation proposals enumerated in Table 3. Table 4 Panel B presents (-1,+1) event window CARs for these proposals. Consistent with the premise that union interests are more likely to align with those of other shareholders with respect to other governance issues, and in contrast to compensation proposal CARs in Panel A, the market reacts insignificantly to the 29 proxy mailing dates targeting non-consultant users. The overall market reaction to the 415 non-compensation governance proposals targeting consultant users mirrors the results in Panel A: the CARs are small and insignificantly different from zero and do not vary according to the targeted firms' unionization intensity. Consistent with our prior results, these findings suggest that the market interprets unions' ability to affect compensation policy more negatively when a firm does not employ a consultant.

4.4 Do unions curtail the use of compensation consultants?

Table 3 provides evidence that unions view executive compensation at consultant-using firms unfavorably, and that targeting intensity is directly associated with unionization rates. As detailed above, an established union literature argues that unions exert their influence on corporate policies when they enjoy greater bargaining power. Do unions play a marginal role in the choice to use a compensation consultant, independent of other factors that explain the consultant choice? Figure 4 illustrates trends in consultant use for firms in the top- and bottom-50 unionized industries over the

2006-2018 period. Figure 4 demonstrates that firms in the most unionized industries, on average, are *more* likely to use consultants compared to firms in the least unionized industries. Taken in conjunction with declining state-level unionization rates (Figure 2), these trends suggest that unions' ability to affect compensation decisions likely exists in pockets of relative union strength that are steadily eroding over time. To examine this premise in greater depth, we explore the multivariate association between unionization and the use of consultants. Chu et al. (2018) identify economic and corporate governance characteristics that have a bearing on the decision to use a consultant. Firms that use compensation consultants tend to have lower operating profit, greater reliance on long-term incentive pay, have shorter tenure CEOs with less firm related wealth, and have larger, more independent boards. To investigate if unions incrementally affect the consultant decision, we estimate the following probit regression model over the 2006-2018 period using explanatory variables that control for the firm's economic fundamentals and governance structure as follows:

$$\begin{aligned}
\text{Compensation consultant}_{i,t+1} = & \alpha_0 + \alpha_1 \text{Unionization rate}_{i,t} + \alpha_2 \text{Firm size}_{i,t} + \alpha_3 \text{Market - book ratio}_{i,t} + & (2) \\
& \alpha_4 \text{Net PPE}_{i,t} + \alpha_5 \text{Firm risk}_{i,t} + \alpha_6 \text{ROA}_{i,t} + \alpha_7 \text{Stock return}_{i,t} + \alpha_8 \text{Log (firm age)}_{i,t} + \\
& \alpha_9 \text{Percentage incentive pay}_{i,t} + \alpha_{10} \text{Firm related wealth}_{i,t} + \alpha_{11} \text{CEO Founder}_{i,t} + \alpha_{12} \text{Log(CEO age)}_{i,t} + \\
& \alpha_{13} \text{Log (1 + CEO tenure)}_{i,t} + \alpha_{14} \text{CEO - Chair}_{i,t} + \alpha_{15} \text{Log(Board size)}_{i,t} + \alpha_{16} \text{Board independence}_{i,t} + \\
& \alpha_{17} \% \text{Independent directors} \geq \text{Age 69}_{i,t} + \alpha_{18} \% \text{Busy independent directors}_{i,t} + \\
& \sum_{j=1}^J \delta_j \text{Industry fixed effects}_{i,j} + \sum_{k=1}^K \theta_k \text{Year fixed effects}_{i,k} + e_{i,t}
\end{aligned}$$

To mitigate endogeneity concerns between the unionization rate and the choice to use a consultant and, we lag all explanatory variables by one year. Table 5 provides probit coefficient estimates for Equation 2. We investigate the prediction of *Hypothesis 1* that the association between the *Unionization rate* in year t with the choice to use a consultant in $t+1$ varies in the strength of the labor environment using the interaction of the *Unionization rate* with alternative location-based metrics of union strength. First, we create an *RTW* indicator that takes the value of one if the firm was located in a right to work state in a given year. Next, we use the state-level total (public plus private) unionization rate for each state-year. Finally, we employ Oxfam's Best States to Work Index, which measures each state's labor geography including wage policies, worker protection policies, right to

organize policies, and a composite measure incorporating all three dimensions.¹⁷ We interact *Unionization rate* with each measure to test if the union effect on consultant use varies in the strength of the unionization environment. These results are provided in Models 1-6. In support of *Hypothesis 1*, the *Unionization rate* \times *RTW* interaction is positive and significant at the 5 percent level, suggesting that firms in RTW (non-RTW) states are more (less) likely to use a consultant when faced with strong unions. In Model 2, unions have a negative (positive) incremental effect on consultant use when located in states with higher (lower) average state union membership rates as evidenced by a positive and significant interaction term. Likewise, the *Unionization rate* interactions are consistently negative and statistically significant in Models 3-6. These results demonstrate that the *Unionization rate* effect on consultant choice significantly varies in state-level labor laws and policies.¹⁸

The CEO- and board-related control variables in Table 5 provide insight as to why consultants are not used when unions have more power. The CEOs of consultant users have compensation packages that are more aligned with shareholder interests. As evidenced by the significantly positive *Percentage incentive pay* estimate, they are compensated more aggressively with incentive-based compensation and are potentially less risk averse as evidenced by the negative *Log (CEO tenure)* estimate. Boards of consultant-using firms also have larger boards with more outside directors and less older directors. In line with prior findings that networks diffuse information and propagate certain corporate practices such as corporate finance policies (Fracassi, 2015), dividend policy (Bouwman and Xuan, 2010), and earnings management (Chiu, Teoh, and Tian, 2013), higher proportions of independent directors with multiple appointments also significantly predict the choice to use a consultant.

¹⁷ <https://www.oxfamamerica.org/explore/research-publications/best-and-worst-states-work-america/>.

¹⁸ To control for unobserved heterogeneity at the state level, we replaced the industry fixed effects with state fixed effects. In addition, to insure that the results are not driven by the earlier part of the sample period, we estimated the models over 2006-2012 and 2013-2018. The (untabulated) probit estimates are qualitatively unchanged.

To better understand the interactions between the *Unionization rate* and the location-based measures of labor strength in Panel A, we convert the continuous moderating variables into indicator variables using the top quartile of each measure's respective distribution to distinguish a 'strong' state-level union environment. We calculate the average marginal effects of the explanatory variables, holding the values of the variables at their sample means. In Panel B, we present the marginal effects using the *Unionization rate* and its interaction with the labor environment indicators. Consistent with the results in Panel A, the *Unionization rate* \times *RTW* interaction in Model 1 is positive and significant, indicating the *Unionization rate* effect on the probability of using a consultant in RTW states is statistically larger than in non-RTW states. Likewise, the negative significance of the additional interactions in Models 2-6 implies negative marginal *Unionization rate* effects in the strongest (top quartile) labor policy states and positive effects for the remaining three quartiles.

We provide direct estimates of the varying *Unionization rate* effect in Panel C. We compute the marginal *Unionization rate* effect conditioned on high (sample mean plus two standard deviations) and low (sample mean minus two standard deviations) values of the state-level unionization measures. In the first row, the marginal *Unionization rate* effect is 0.031 in non-RTW states and 0.202 in RTW states, demonstrating that a one-unit *Unionization rate* increase in a non-RTW (RTW) state increases the probability of consultant use by 3.1 percent (20.2 percent), respectively. The 17.1 percent difference in these marginal effects is significantly different from zero at the 5 percent level. For the continuous state-level measures, the marginal effects are negative at high (strong union state) levels and positive at low (weak union state) levels. For example, a one-unit increase in the *Unionization rate* for firms located in states with a high (low) *Overall state score* is associated with a -12.21 percent (28.79 percent) decrease in the probability of consultant use, respectively. The -41.0 percent difference in sensitivities is significantly different from zero at the 1 percent level.

Motivated by the premise that multiservice consultants have potential conflicts of interests with the client firm, prior research investigates if multiservice firms have a pronounced compensation effect compared to specialist firms and reports mixed findings as to whether multiservice firms are associated with higher executive pay (Chu et al., 2018; Murphy and Sandino, 2020). However, Chu et al. (2018) argue that the SEC's rule change in 2009 requiring that firms disclose fees paid to compensation consultants for both consultant and other services acted as a separating device to distinguish firms that used consultants for rent extraction vs. optimal pay setting. They show that firms switching to related specialist firms spun off from multiservice firms after the 2009 rule change paid their CEOs more vs. a matched set of firms that remained with multiservice firms. In Figure 5, we illustrate these trends over the 2006-2018 period for the Execucomp-based sample. While the industry- and state unionization levels decline, the use of consultants increases from approximately 88.3 percent to 93.1 percent. Following the SEC rule change in 2009, the use of specialist consultants increases while the use of multiservice consultants decreases.

We investigate if union pressure to limit the use of compensation consultants focuses on specialist or multiservice firms. We calculate the probability of firm j using a specialist (alternatively, multiservice) consultant firm year $t+1$ in a multi-equation framework using a multinomial probit regression based on the specification of Equation 2, where firms that do not use a consultant comprise the base category. For brevity, we estimate models including *Unionization rate* interactions with the *RTW* indicator, the *State-level total public unionization rate*, and the aggregate *Overall state score* measure. Table 6 presents the regression estimates. The results are consistent with those of Table 5, where the *Unionization rate* negatively interacts with the external unionization environment. However, consistent with the findings of Chu et al. (2018) suggesting that firms may use spun-off related specialist consultants for favorable compensation advice, the effect is concentrated among specialist consultants.

4.5 Do compensation consultants diminish union influence on CEO compensation?

Tables 5-6 collectively demonstrate that unions are generally unable to limit the use of consultants except when they are located in pro-labor environments. Following *Hypothesis 2*, a key issue is whether compensation consultants have an incremental effect on reducing union say over compensation arrangements. To investigate this premise, we employ a univariate matched pair context to investigate if the use of a compensation consultant reduces union influence over compensation policy. Chu et al. (2018) examine the effect of consultant use on CEO pay using a 1:1 matched pair approach using the propensity scores of the likelihood of using a consultant for a given firm-year, specifying covariates that capture economic and corporate governance characteristics. In a similar vein, we use the economic and corporate governance characteristics specified in Equation (1), i.e., the measures associated with α_2 - α_{18} , to identify a matching consultant-using firm for each no-consultant firm in the same year using caliper matching without replacement. There are 489 no-consultant firm-years during 2006-2018 with a complete record of Execucomp compensation items. We are able to match 87.3 percent (i.e., 427 cases). Table 7 Panel A provides cash and equity-linked compensation descriptive statistics for the no-consultant sample and matched consultant-using pairs. While unionization rates of the no-consultant and consultant firms are similar, CEO pay components are significantly lower. Mean and median cash compensation (Execucomp item TOTAL_CURR), equity compensation (TDC1-TOTAL_CURR), current-year stock awards (STOCK_AWARDS_FV) and option awards (OPTION_AWARDS_FV) among the no-consultant firms are significantly lower at the 1 percent level vs. the matched firms. Consistent with the lower use of option compensation among the no-consultant firms, CEO vega is also significantly lower.

We investigate if unionization intensity is associated with cash and equity-linked pay components among the no-consultant treatment firms and their consultant-using counterparts. Our focus on equity pay is motivated by prior research (e.g., Gomez and Tzioumis, 2011; Huang et al.,

2017) demonstrating that union influence on executive pay emphasizes the equity-linked component. We sort the no-consultant and consultant-using matched firms by the unionization rate for each year, segment into quartiles, and calculate the mean and median for each of the compensation components reported in Panel A. We report these results in Table 7 Panel B. Mean (median) logged cash compensation and total equity compensation are qualitatively unchanged between the lowest and highest unionization quartiles based on the p -values in the last column. However, the logged fair value of stock awards significantly increases in union intensity, where the mean increases from 3.570 in the lowest unionization quartile to 4.822 in the highest quartile. In contrast, the mean logged fair value of option awards significantly decreases monotonically in union intensity, from 4.056 in the lowest unionization quartile to 2.657 in the highest quartile. Consistent with lower option compensation, mean (median) CEO risk incentives significantly decrease: the logged CEO vega declines from a mean (median) of 3.937 (4.441) in the lowest unionization quartile to 3.097 (4.029) in the highest quartile. These differences are significant at the 1 percent levels, respectively. In Panel C, we repeat the analysis with the consultant-using matched firms. The results differ to those of Panel B. While the unionization rate is positively associated with cash compensation, it is statistically unrelated with the other components. As a result, the unionization rate is unassociated with vega. Overall, the results in Table 7 provide evidence that strong unions are associated with significantly lower CEO option compensation and risk incentives only when the firm does not engage a consultant.

While these results broadly suggest that unions do not play a role in option compensation choices among consultant-using firms, there may be more heterogeneity based on the type of consultant. Chu et al. (2018) argue that the SEC's 2009 consultant disclosure rule change serves as a separating device for firms that used consultants for rent-seeking purposes. Chu et al. (2018) argue that client firms switching to the related specialist firms were able to maintain a *quid pro quo* compensation relationship. In their framework, CEOs are likely to have made the decision to switch

to a related specialist, while the board was more likely to have decided to stay with a multiservice firm. Therefore, these choices reveal the relative power of the CEO vs. the board. To the extent that unions are more likely to project their influence on compensation choices at the board level, unions may continue to play a role in compensation choices among multiservice consultant firms where the board has relatively greater power.

We examine this premise in Table 8. Following the approach of Chu et al. (2018), we focus on the 2009-2012 period to isolate the immediate effects of the rule change. In our sample, 232 firms switched to a related specialist firm during 2009-2012. We follow the 1:1 matching procedure described above, matching the switching firms to multiservice consultant stayers using the propensity score. We identify 173 matches for these firms, resulting in a 74.6 percent match rate. In Table 8 Panel A, we provide summary statistics for the two groups. Similar to the findings of Chu et al. (2018), cash and equity compensation are higher among the related consultant switchers. While stock awards are also higher among unrelated consultant switchers, option awards are lower. CEO risk incentives are approximately the same. In Panel B, we compare cash and equity-linked compensation components for the lowest and highest unionization quartiles. For the related specialist switchers, there are no significant differences among compensation components between the low and high unionization quartiles. For the matched-pair multiservice consultant stayers, the unionization rate is weakly positively associated with cash compensation. In contrast, and in support of the notion that unions exert control over CEO risk incentives when the board has relatively more power, mean and median logged option awards and vega decrease significantly from the lowest to highest unionization rate quartiles. These differences are significant at the 5 percent significance level or lower.

The univariate analyses provide preliminary evidence that union control over CEO compensation significantly weakens in the presence of a compensation consultant. Given our earlier findings in Table 2 illustrating a diminished union effect on CEO compensation in a more recent time

period, does the use of a compensation consultant explain the loss of the union effect? To answer this question, we revisit the results of Table 2 for the 2006-2018 period. We add the *Use consultant* binary variable for firms that retain a compensation consultant in a given year and its interaction with the *Unionization rate* in Equation 1. To reduce potential endogeneity concerns, we employ firm-level fixed-effects along with year fixed-effects in this specification. With this model specification, the *Use consultant* estimates and their interactions with *Unionization rate* capture the average within-firm changes in CEO compensation components for firms whose *Use consultant* status changes relative to firms who experience no changes in *Use consultant* status after controlling for other observable variables. Therefore, the inclusion of firm and year fixed-effects represents a generalized form of difference-in-difference regression design (e.g. Bertrand and Mullainathan, 2003). We expect unions to lose control over CEO compensation decisions (particularly equity-linked) in the presence of a compensation consultant. The results in Table 9 support this conjecture. While the main *Use consultant* effect is largely insignificant, there is a significant differential effect associated with unionization intensity. In Model 1, the *Unionization rate* \times *Use consultant* interaction is positive and significant at the 1 percent level, indicating that the unionization rate positively affects total compensation within the subset of firms with compensation consultants. In Models 2-3, we decompose total compensation into its cash and equity-linked components. The results demonstrate that the cash and equity components contribute to the interactive effect on total compensation, where the *Unionization rate* \times *Use consultant* estimate is positive and significant at the 5 percent level.

In Table 9 Models 4-6, we investigate the *Unionization rate* \times *Use consultant* effect on logged stock and option awards, and on CEO risk incentives. Consistent with the paired firm analyses, Model 4 demonstrates that the *Use consultant* indicator is unrelated with stock awards among consultant-using firms. In contrast to the stock award component, Model 5 shows that the interaction term is positive and significant at 5 percent level, suggesting that a firm with one standard deviation greater

unionization rate increases logged option awards by about 4.84 vs. an otherwise comparable firms with the presence of compensation consultant. Finally, Model 6 illustrates that the positive union effect on option compensation also affects CEO vega, where the *Unionization rate* \times *Use consultant* interaction is significant at the 1 percent level. These results provide further support for the notion that consultant use diminishes the union effect on CEO compensation as predicted by *Hypothesis 2*.

5. Consultant Effect Implications for Prior Unionization Research

Consistent with anecdotal evidence, our evidence suggests the emergence of compensation consultants as a possible mechanism through which unions have lost their influence on CEO compensation contracting. Because firms can use consultants to justify high executive pay, and since the guidance of consultants enable firms to align their executive pay with shareholder interests, the presence of compensation consultant reduces union bargaining power. Following this view, we find that consultant use is increasing in the unionization rate of the firm. Our analyses of union-sponsored shareholder proposals underscores the declining union influence on CEO contracting in the presence of a compensation consultant: Unions disproportionately voice their disagreement with executive pay among consultant-using firms, resorting to the proposal mechanism to sway corporate policy.

While our results show that unions are generally unable to curtail the use of consultants, strong unions in pro-labor locations are more likely to reduce consultant use. In turn, unions are able to exert more bargaining power when the firms do not use consultant, based on our findings of negative associations between the unionization rate with CEO total and incentive pay. Accordingly, our results suggest that the lack of a consultant is an indicator of continued union bargaining strength. To test this premise, we examine the influence of compensation consultants on union's influence to corporate cash holdings. We choose corporate cash policy for two reasons. First, like executive compensation, prior union research associates cash policy with the strategic response explanation: Klasa et al. (2009)

provide evidence based on data from 1983-2005 period that managers strategically reduce cash holdings as a way to strengthen their bargaining position over organized labor. Second, Liu and Mauer (2011) argue that the managers choose to hold and deploy cash with little outside oversight. We use Klasa et al.'s (2009) empirical specification to test if unionized firms use compensation and cash policy:¹⁹

$$\begin{aligned}
 \text{Cash holdings} = & \alpha_0 + \alpha_1 \text{Unionization rate}_{i,t} + \alpha_2 \text{High industry HHI}_{i,t} + \\
 & \alpha_3 \text{Log(real market value of assets)}_{i,t} + \alpha_4 \text{R\&D/sales}_{j,t} + \alpha_5 \text{Capital expenditure/book assets}_{i,t} + \\
 & \alpha_6 \text{Total leverage}_{i,t} + \alpha_7 \text{Investment grade dummy}_{i,t} + \alpha_8 \text{Dividend paying dummy}_{i,t} + \alpha_9 \text{Operating income /} \\
 & \text{book assets}_{i,t} + \alpha_{10} \text{NWC/book assets}_{i,t} + \alpha_{11} \text{Coefficient of variation of median industry operating income /} \\
 & \text{book assets}_{i,t} + \alpha_{12} \text{Net PPE/book assets}_{i,t} + \alpha_{14} \text{Import penetration}_{i,t} + \alpha_{15} \text{Firm had IPO} < \\
 & \text{5 years old dummy}_{i,t} + \sum_{j=1}^J \delta_j \text{Industry fixed effects}_{i,j} + \sum_{k=1}^K \theta_k \text{Year fixed effects}_{i,k} + e_{i,t}
 \end{aligned} \tag{3}$$

Consistent with our prior analyses, we include the *No consultant* indicator and its interaction with the *Unionization rate* to Equation 3. An insignificant *Unionization rate* main effect would support the view that consultant-using firms do not use cash policy strategically in the face of strong unions. In a similar vein, a significant negative *Unionization rate* \times *No consultant* estimate would provide evidence that the lack of a consultant serves as an indicator of union strength, where firms not only engage with strong unions with compensation but also with cash holding policy.

Klasa et al. (2009) estimate Equation 3 using all Compustat manufacturing sector firms consisting of 34,042 firm-years over the 1983-2005 period. As we illustrate in Table 10 Column 2, Klasa et al. (2009) report a significantly negative *Unionization rate* estimate (-3.563) demonstrating that greater union strength incrementally reduces cash holdings. In Table 10 Model 1, we estimate Equation 3 over the 1992-2018 period using manufacturing sector firms in the Execucomp dataset and obtain a *Unionization rate* estimate (-2.3534) that is qualitatively similar in magnitude and economic

¹⁹ Klasa et al. (2009) do not discuss the construction of several control variables. We define “real market value of assets” as the sum of (interest-bearing debt plus the market capitalization of the firm’s equity) in constant 2015 dollars using the CPI indices available from the Bureau of Labor Statistics CPI archive. “Market-book ratio” is (assets net of current liabilities plus the market capitalization of equity) divided by total assets. “Investment grade dummy” is an indicator equal to one if the S&P firm quality rating (Compustat data item SPCSRM) is “B+” or greater. We also include industry fixed effects at the SIC2 level in all models. The remaining variables follow Klasa et al.’s descriptions.

significance. In Models 2-3, we estimate Equation 3 over the 1992-2005 and 2006-2018 sub-periods. While the *Unionization rate* estimate is negative and statistically significant at the 1 percent level in both periods, the estimate diminishes, from -2.8039 over the 1992-2005 period (Model 2) to -2.3259 over the 2006-2018 period (Model 3).

In Model 4, we include the *No consultant* binary variable and its interaction with the *Unionization rate*. As expected, the interaction is negative and significant at the 10 percent level, suggesting that the unionization rate continues to motivate cash holdings policy within the subset of no-consultant firms. Further, the *Unionization rate* estimate becomes insignificantly different from zero, suggesting that the *No consultant* interaction subsumes the significant unionization effect in Model 3. In Model 5, we broaden the sample to all available Execucomp firms (excluding utilities and financials) by omitting the *Import penetration* measure. Consistent with Model 4's results, the *Unionization rate* estimate is insignificantly different from zero while the *Unionization rate* \times *No consultant* interaction is negative and significant at the 5 percent level. Overall, these results offer additional support for the notion that in environments where unions continue to influence CEO compensation, they also continue to affect other corporate policies. However, consistent with our earlier findings, the significance of the union effect disappears for the large majority of firm years that engage a consultant.

6. Conclusions

Previous unionization research demonstrates a significant association between unionization rates and executive compensation. Motivated by the long-term decline in union participation over the sample period employed by much of this work, we document a declining union effect on compensation in a contemporary 2006-2018 period. At the same time, the use of compensation consultants became

pervasive over this period. Union inability to curtail the use of compensation consultants over this period is a plausible explanation for a diminished union effect on CEO pay.

In preliminary analysis, unions associate consultants with excessive CEO compensation as evidenced by the relative frequency of union-sponsored shareholder proposals addressing compensation issues. However, the market does not react to news of compensation-focused proposals at consultant-using firms, suggesting that investors perceive little union influence on compensation policy among these firms. Consistent with the premise that unionized firms use consultants to justify higher pay, our results suggest that firms with higher unionization rates are significantly more likely to engage a compensation consultant. In strong pro-labor state environments, however, the positive association between unionization rates and the use of consultants is much weaker or absent. We identify a negative unionization rate effect on option compensation and CEO risk incentives among no-consultant firms in a matched-pairs univariate framework. In contrast, and consistent with the negative market response to compensation proposals targeting consultant-users, the unionization rate is unrelated to CEO compensation components or incentives among the matched consultant-using firms. These results persist using a multivariate framework, demonstrating that increasing unionization rates are negatively associated with CEO option compensation and managerial risk incentives among no-consultant firms.

Finally, we investigate if these results alter the interpretation of results reported in prior unionization research. Based on the notion that the use of a compensation consultant is an indicator of declining union bargaining strength, it follows that the union effect on other corporate policies reported in extant research has likewise weakened among consultant-using firms. As such, we revisit the cash holdings results reported by Klasa et al. (2009). Our findings demonstrate a significant negative union effect on corporate cash holdings among no-consultant firms, while the significance of the union effect disappears for the large majority of firm years that engage a consultant.

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Table 1
Summary Statistics

The following table provides summary statistics for dependent and explanatory variables used in the multivariate analyses.

| | No. Obs. | Mean | St. Dev. | Q25 | Median | Q75 |
|--------------------------------------------------------------------|----------|--------|-----------|--------|---------|---------|
| Unionization rate | 26,961 | 0.093 | 0.105 | 0.022 | 0.057 | 0.124 |
| 1992-2005 | 12,219 | 0.116 | 0.123 | 0.028 | 0.075 | 0.158 |
| 2006-2018 | 14,742 | 0.074 | 0.083 | 0.021 | 0.045 | 0.097 |
| Panel 1: Table 2 | | | | | | |
| TDC1 (\$000's) | 26,961 | 5,112 | 8,643 | 1,401 | 3,044 | 6,212 |
| Firm related wealth (\$000's) | 24,649 | 97,115 | 1,050,759 | 6,219 | 15,890 | 43,238 |
| Firm size | 26,961 | 7.307 | 1.604 | 6.175 | 7.196 | 8.347 |
| Stock return | 26,961 | 0.163 | 0.440 | -0.063 | 0.156 | 0.373 |
| Lagged stock return | 26,961 | 0.176 | 0.441 | -0.056 | 0.165 | 0.386 |
| ROA | 26,961 | 0.038 | 0.122 | 0.016 | 0.053 | 0.091 |
| Lagged ROA | 26,961 | 0.038 | 0.122 | 0.016 | 0.053 | 0.092 |
| Lagged leverage | 26,961 | 0.221 | 0.189 | 0.048 | 0.203 | 0.334 |
| Lagged book to market | 26,961 | 0.611 | 0.269 | 0.408 | 0.596 | 0.793 |
| Lagged volatility | 26,961 | 0.047 | 0.053 | 0.017 | 0.030 | 0.055 |
| Lagged investment | 26,961 | 0.057 | 0.054 | 0.022 | 0.040 | 0.072 |
| Lagged tangibility | 26,961 | 0.277 | 0.221 | 0.104 | 0.212 | 0.395 |
| Lagged sales growth | 26,961 | 0.092 | 0.228 | -0.003 | 0.076 | 0.173 |
| Lagged R&D | 26,961 | 0.035 | 0.062 | 0.000 | 0.003 | 0.044 |
| CEO tenure | 26,961 | 1.756 | 0.880 | 1.099 | 1.792 | 2.398 |
| CEO-Chair dummy | 26,961 | 0.575 | 0.494 | 0.000 | 1.000 | 1.000 |
| Log (industry capital labor) | 26,961 | 4.993 | 1.099 | 4.313 | 4.723 | 5.427 |
| Log (industry age) | 26,961 | 3.105 | 0.293 | 2.921 | 3.133 | 3.306 |
| Industry R&D | 26,961 | 0.037 | 0.038 | 0.003 | 0.017 | 0.070 |
| Panel 2a: Tables 5-6 binary dependent variables | | | | | | |
| Use consultant | 7,158 | 0.930 | 0.255 | 1.000 | 1.000 | 1.000 |
| Use specialist consultant | 7,158 | 0.561 | 0.496 | 0.000 | 1.000 | 1.000 |
| Use multiservice consultant | 7,158 | 0.310 | 0.462 | 0.000 | 0.000 | 1.000 |
| Panel 2b: Tables 5-6 measures of state-level union strength | | | | | | |
| Right to work (RTW) | 7,158 | 0.125 | 0.060 | 0.057 | 0.138 | 0.164 |
| State-level total unionization rate | 7,158 | 44.366 | 27.561 | 16.040 | 43.270 | 72.370 |
| State worker protection score | 7,158 | 48.381 | 28.536 | 22.220 | 44.440 | 77.780 |
| State right to organize score | 7,158 | 73.369 | 35.235 | 33.330 | 100.000 | 100.000 |
| Overall state score | 7,158 | 55.373 | 27.206 | 30.000 | 61.740 | 74.150 |
| Panel 2c: Tables 5-6 additional independent variables | | | | | | |
| Firm size | 7,158 | 8.468 | 1.353 | 7.569 | 8.361 | 9.283 |
| Market-book ratio | 7,158 | 2.173 | 1.310 | 1.334 | 1.771 | 2.537 |
| Net PPE | 7,158 | 0.253 | 0.217 | 0.088 | 0.181 | 0.359 |
| Firm risk | 7,158 | -7.821 | 0.878 | -8.453 | -7.914 | -7.257 |
| ROA | 7,158 | 0.059 | 0.096 | 0.029 | 0.062 | 0.102 |
| Stock return | 7,158 | 0.144 | 0.379 | -0.039 | 0.149 | 0.326 |
| Log (firm age) | 7,158 | 3.153 | 0.787 | 2.705 | 3.170 | 3.739 |
| Percentage incentive pay | 7,158 | 0.787 | 0.179 | 0.759 | 0.845 | 0.893 |
| Log (firm related wealth) | 7,158 | 10.167 | 1.540 | 9.251 | 10.154 | 11.023 |
| Founder CEO | 7,158 | 0.035 | 0.183 | 0.000 | 0.000 | 0.000 |
| Log (CEO age) | 7,158 | 4.014 | 0.120 | 3.932 | 4.025 | 4.094 |
| Log (CEO tenure) | 7,158 | 1.702 | 0.851 | 1.099 | 1.792 | 2.303 |
| CEO-Chair dummy | 7,158 | 0.501 | 0.500 | 0.000 | 1.000 | 1.000 |
| Log (Board size) | 7,158 | 2.269 | 0.218 | 2.079 | 2.303 | 2.398 |
| Board independence | 7,158 | 0.859 | 0.071 | 0.833 | 0.889 | 0.909 |
| % Independent directors \geq Age 69 | 7,158 | 0.229 | 0.186 | 0.100 | 0.200 | 0.333 |
| % Busy independent directors | 7,158 | 0.593 | 0.222 | 0.444 | 0.600 | 0.750 |

Table 1 (cont'd)

| Panel 3: Table 10 | No. Obs. | Mean | St. Dev. | Q25 | Median | Q75 |
|----------------------------------------------------------------------------|----------|-------|----------|-------|--------|-------|
| Cash holdings | 7,155 | 0.254 | 0.600 | 0.025 | 0.082 | 0.233 |
| High industry HHI dummy | 7,155 | 0.487 | 0.500 | 0.000 | 0.000 | 1.000 |
| Log (real market value of assets) | 7,155 | 6.169 | 2.397 | 4.332 | 5.965 | 7.848 |
| Market-book assets | 7,155 | 1.769 | 1.305 | 1.070 | 1.410 | 1.976 |
| R&D/sales | 7,155 | 0.057 | 0.128 | 0.000 | 0.019 | 0.062 |
| Capital expenditures/book assets | 7,155 | 0.056 | 0.047 | 0.026 | 0.044 | 0.073 |
| Total leverage | 7,155 | 0.246 | 0.254 | 0.075 | 0.218 | 0.347 |
| Investment grade dummy (SPCSR _M ≥ B+) | 7,155 | 0.281 | 0.449 | 0.000 | 0.000 | 1.000 |
| Dividend paying dummy | 7,155 | 0.540 | 0.498 | 0.000 | 1.000 | 1.000 |
| Operating income/book assets | 7,155 | 0.109 | 0.268 | 0.082 | 0.141 | 0.200 |
| Net working capital/book assets | 7,155 | 0.235 | 0.243 | 0.111 | 0.236 | 0.366 |
| Coefficient of variation of median industry operating income / book assets | 7,155 | 0.413 | 0.739 | 0.126 | 0.204 | 0.387 |
| Net PPE/book assets | 7,155 | 0.298 | 0.168 | 0.175 | 0.275 | 0.388 |
| Import penetration | 7,155 | 0.004 | 0.002 | 0.002 | 0.004 | 0.005 |
| Firm had its IPO during last 5 years dummy | 7,155 | 0.006 | 0.078 | 0.000 | 0.000 | 0.000 |

Table 2
Unionization Intensity and CEO Compensation

Table 2 provides regression estimates of logged CEO total compensation (Execucomp item TDC1) and firm related wealth regressed on the *Unionization rate* and additional control variables for the 1994-2018 period and for the 1994-2005 and 1996-2018 sub-periods. The specification and construction of the variables follow Huang, Jiang, Lie, Que [HJLQ] (2017, Table 2 Model 1). We adjust the robust standard errors for clustering at the CIC industry level and provide *p*-values in parentheses. *, **, and *** denotes significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

| | HJLQ (2014) Reported Results (Table 2 Model 1) | Dependent variable = log (TDC1) | | Dependent variable = log (Equity compensation) | | Dependent variable = log (Firm related wealth) | |
|-----------------------------------------------------------|---------------------------------------------------|------------------------------------|------------------------|---------------------------------------------------|------------------------|---------------------------------------------------|------------------------|
| | | Model (1) 1992-2005 | Model (2) 2006-2018 | Model (3) 1992-2005 | Model (4) 2006-2018 | Model (5) 1992-2005 | Model (6) 2006-2018 |
| Unionization rate | -0.737*** (0.001) | -0.6345*** (0.000) | 0.1324 (0.584) | -0.5595 (0.181) | 0.9118** (0.045) | -1.3073*** (0.003) | -0.6220 (0.108) |
| Firm size | 0.461*** (0.000) | 0.4606*** (0.000) | 0.4507*** (0.000) | 0.6552*** (0.000) | 0.6111*** (0.000) | 0.4877*** (0.000) | 0.4771*** (0.000) |
| Stock return | 0.253*** (0.000) | 0.2516*** (0.000) | 0.1737*** (0.000) | 0.2684*** (0.000) | 0.3143*** (0.000) | 0.8696*** (0.000) | 0.9210*** (0.000) |
| Lagged stock return | 0.114*** (0.000) | 0.1263*** (0.000) | 0.1246*** (0.000) | 0.1279** (0.025) | 0.1900*** (0.000) | 0.0743*** (0.009) | 0.2760*** (0.000) |
| ROA | 0.108 (0.646) | -0.0787 (0.444) | -0.0071 (0.950) | -0.4948*** (0.003) | 0.0805 (0.771) | 0.0155 (0.821) | 0.2581 (0.104) |
| Lagged ROA | -0.178 (0.518) | 0.1764*** (0.002) | -0.0855 (0.378) | 0.4480 (0.101) | 0.1353 (0.439) | 0.3227* (0.065) | 0.2147 (0.184) |
| Lagged leverage | -0.062 (0.502) | -0.0234 (0.762) | 0.1589*** (0.002) | 0.0266 (0.867) | 0.3121*** (0.004) | -0.3841** (0.027) | -0.5051*** (0.000) |
| Lagged book to market | -0.719*** (0.000) | -0.5373*** (0.000) | -0.4057*** (0.000) | -0.8019*** (0.000) | -0.6463*** (0.000) | -1.9633*** (0.000) | -1.5559*** (0.000) |
| Lagged volatility | 0.453*** (0.001) | 0.6028* (0.069) | 0.1419 (0.491) | -0.7171 (0.344) | -0.5784 (0.254) | 0.4847 (0.123) | 0.0675 (0.889) |
| Lagged investment | 0.534* (0.070) | -0.0385 (0.855) | 0.0110 (0.974) | 0.2896 (0.632) | -0.1303 (0.854) | 1.6560*** (0.000) | 2.2391*** (0.002) |
| Lagged tangibility | -0.442*** (0.000) | -0.4274*** (0.000) | -0.3893*** (0.000) | -0.6728*** (0.001) | -0.3326* (0.098) | -0.7981*** (0.000) | -0.3393** (0.035) |
| Lagged sales growth | 0.054 (0.104) | 0.0057 (0.897) | -0.0794 (0.108) | 0.0179 (0.855) | -0.0841 (0.423) | 0.3310*** (0.000) | 0.2709*** (0.000) |
| Lagged R&D | 0.003 (0.316) | 1.2708*** (0.000) | 0.8172*** (0.000) | 3.6336*** (0.000) | 1.4767*** (0.001) | -0.6048 (0.103) | 0.3430 (0.475) |
| CEO tenure | -0.006** (0.025) | -0.0691*** (0.000) | -0.0001 (0.993) | -0.3084*** (0.000) | -0.0732*** (0.009) | 0.5849*** (0.000) | 0.6949*** (0.000) |
| CEO-Chair dummy | 0.139*** (0.000) | 0.1161*** (0.000) | 0.0293 (0.319) | 0.2094*** (0.000) | 0.0137 (0.818) | 0.1642*** (0.000) | 0.3017*** (0.000) |
| Log (industry capital labor) | 0.001 (0.211) | -0.0453 (0.451) | 0.0155 (0.792) | -0.1582 (0.260) | 0.0694 (0.592) | 0.1282 (0.170) | 0.0287 (0.711) |
| Log (industry age) | 0.001 (0.611) | 0.1223 (0.193) | 0.0791 (0.412) | 0.5195** (0.036) | 0.0467 (0.756) | -0.1943 (0.131) | 0.0922 (0.658) |
| Industry R&D | -0.018 (0.533) | 2.1387** (0.014) | 0.9526** (0.012) | 2.6132 (0.136) | 1.8729*** (0.000) | 1.6924 (0.292) | 0.5232 (0.434) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| No. Obs. | 18,366 | 12,219 | 14,742 | 12,219 | 14,742 | 11,388 | 13,261 |
| R-squared | 0.509 | 0.504 | 0.576 | 0.275 | 0.383 | 0.579 | 0.593 |
| Difference in Coefficients χ^2 (<i>p</i> -value) | | | 7.47 (0.006) | | 7.97 (0.005) | | 1.48 (0.223) |

Table 3**Union Shareholder Proposal Activism and Compensation Consultants**

Table 3 provides details about union-sponsored shareholder proposals using information from the ISS Shareholder Proposal database. Panel A provides the frequency of proposals, Panel B provides the mean proportions of Execucomp firms targeted by union-sponsored proposals over 1996-2018, and Panels C-D and E-F examine the effect of unionization intensity on union targeting conditioned on consultant use and location in strong and weak union states, respectively.

Panel A: Frequency of proposals and targeted firms

| Unique proposals | No. Proposals |
|-------------------------------------------------------------------|----------------|
| Compensation (Equity compensation subset) | 440 (157) |
| Non-compensation (board, voting, antitakeover, and miscellaneous) | 611 |
| All governance | 1,051 |
| Targeted firm-years | No. Firm-years |
| Compensation (Equity compensation subset) | 378 (146) |
| Non-compensation (board, voting, antitakeover, and miscellaneous) | 448 |
| All governance | 826 |

Panel B: Proportions of Execucomp firm-years targeted by a union-sponsored proposal

| Proposal issue | No compensation consultant | | | Compensation consultant users | | | T-test P-value |
|------------------|----------------------------|-------|----------|-------------------------------|-------|----------|----------------|
| | No. Obs | Mean | St. Dev. | No. Obs | Mean | St. Dev. | |
| All governance | 804 | 0.049 | 0.215 | 8,567 | 0.092 | 0.289 | 0.000 |
| Compensation | 804 | 0.012 | 0.111 | 8,567 | 0.043 | 0.203 | 0.000 |
| Non-compensation | 804 | 0.036 | 0.187 | 8,567 | 0.049 | 0.216 | 0.103 |

Panel C: No compensation consultant

| Proposal issue | Unionization rate Q1 (No. Obs. = 206) | Unionization rate Q2 (No. Obs. = 202) | Unionization rate Q3 (No. Obs. = 195) | Unionization rate Q4 (No. Obs. = 201) | Q4 – Q1 P-value |
|------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|--------------------|
| All governance | 0.029 | 0.059 | 0.046 | 0.060 | 0.134 |
| Compensation | 0.019 | 0.010 | 0.005 | 0.015 | 0.728 |
| Non-compensation | 0.010 | 0.049 | 0.041 | 0.045 | 0.023 |

Panel D: Compensation consultant users

| Proposal issue | Unionization rate Q1 (No. Obs. = 2,197) | Unionization rate Q2 (No. Obs. = 2,118) | Unionization rate Q3 (No. Obs. = 2,116) | Unionization rate Q4 (No. Obs. = 2,136) | Q4 – Q1 P-value |
|------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------|
| All governance | 0.067 | 0.079 | 0.092 | 0.130 | 0.000 |
| Compensation | 0.030 | 0.043 | 0.046 | 0.052 | 0.001 |
| Non-compensation | 0.036 | 0.035 | 0.046 | 0.078 | 0.000 |

Panel E: Compensation consultant users in weak union locations

| Proposal issue | Unionization rate Q1 (No. Obs. = 1,070) | Unionization rate Q2 (No. Obs. = 1,022) | Unionization rate Q3 (No. Obs. = 1,054) | Unionization rate Q4 (No. Obs. = 1,035) | Q4 – Q1 P-value |
|------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------|
| All governance | 0.069 | 0.074 | 0.079 | 0.136 | 0.000 |
| Compensation | 0.035 | 0.040 | 0.038 | 0.047 | 0.173 |
| Non-compensation | 0.034 | 0.034 | 0.041 | 0.089 | 0.000 |

Panel F: Compensation consultant users in strong union locations

| Proposal issue | Unionization rate Q1 (No. Obs. = 1,068) | Unionization rate Q2 (No. Obs. = 1,036) | Unionization rate Q3 (No. Obs. = 1,034) | Unionization rate Q4 (No. Obs. = 1,033) | Q4 – Q1 P-value |
|------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------|
| All governance | 0.072 | 0.074 | 0.109 | 0.129 | 0.000 |
| Compensation | 0.030 | 0.040 | 0.055 | 0.056 | 0.003 |
| Non-compensation | 0.042 | 0.034 | 0.052 | 0.073 | 0.003 |

Table 4**Compensation Consultants and the Market Reaction to Union-sponsored Governance Proposals**

Table 4 presents mean and median cumulative abnormal return (CAR) for the three-day (-1,+1) window surrounding the proxy mailing date of union-sponsored compensation shareholder resolutions for no-consultant firms (Panel A), consultant-using firms (Panel B), and subsets of consultant-using firms based on the unionization rate. In Panel A, two of the 378 firm-years used in Table 3 Panel A have missing stock returns. In Panel B, four of the 448 firm-years used in Table 3 Panel A have missing stock returns. Cumulative abnormal returns (CARs) use an equal-weighted market model approach estimated over day -206 to day -6 relative to the proxy mailing date. The standardized cross-sectional z-statistic (rank z-statistic) tests the significance of the mean CAR using a two-tail test, respectively. ** denotes significance at the 5 percent level.

Panel A: Compensation related proposals

| No. Obs. | Mean CAR (%) | Median CAR (%) | Standardized Cross-sectional Z-statistic | Rank Test Z-statistic |
|-------------------------------------------------------------------------------------|--------------|----------------|------------------------------------------|-----------------------|
| Panel A: No compensation consultant | | | | |
| 10 | -2.45 | -3.29 | 2.497** | 2.446** |
| Panel B1: Compensation consultant users | | | | |
| 366 | 0.16 | 0.12 | 0.556 | 0.749 |
| Panel B2: Compensation consultant users - unionization rate quartile subsets | | | | |
| 87 (Q1) | 0.43 | 0.09 | 0.960 | 0.666 |
| 94 | 0.24 | 0.20 | 0.361 | 0.319 |
| 93 | -0.18 | -0.08 | -0.564 | -0.317 |
| 92 (Q4) | 0.17 | 0.25 | 0.541 | 0.908 |

Panel B: Non-compensation related proposals

| No. Obs. | Mean CAR (%) | Median CAR (%) | Standardized Cross-sectional Z-statistic | Rank Test Z-statistic |
|-------------------------------------------------------------------------------------|--------------|----------------|------------------------------------------|-----------------------|
| Panel A: No compensation consultant | | | | |
| 29 | -0.36 | -0.10 | 0.511 | 0.672 |
| Panel B1: Compensation consultant users | | | | |
| 415 | 0.11 | 0.05 | 0.305 | 0.843 |
| Panel B2: Compensation consultant users - unionization rate quartile subsets | | | | |
| 103 (Q1) | 0.56 | 0.28 | 1.094 | 1.250 |
| 103 | -0.06 | -0.05 | -0.114 | 0.061 |
| 105 | 0.19 | 0.23 | 0.508 | 0.690 |
| 104 (Q4) | -0.25 | -0.15 | -0.983 | -0.274 |

Table 5
Unionization Intensity and Compensation Consultant Choice

Table 5 provides probit estimates for the likelihood firm i retains a compensation consultant in year $t+1$. We adjust the robust standard errors for clustering at the CIC industry level and provide p -values in parentheses. *, **, and *** denotes significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

| Panel A: Probit estimates | | | | | | | |
|----------------------------------------------------------------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | Model (1) | Model (2) | Model (3) | Model (4) | Model (5) | Model (6) | Model (7) |
| Unionization rate | 1.5207** (0.024) | 0.6186 (0.357) | 5.1371*** (0.007) | 3.9904*** (0.008) | 4.1911*** (0.008) | 6.2108*** (0.003) | 5.9551*** (0.003) |
| Unionization rate \times RTW | | 3.4088** (0.037) | | | | | |
| RTW | | -0.3204** (0.047) | | | | | |
| Unionization rate \times State-level total unionization rate | | | -27.5701*** (0.010) | | | | |
| State-level total unionization rate | | | 2.8375** (0.032) | | | | |
| Unionization rate \times State wage standards score | | | | -0.0553** (0.024) | | | |
| State wage standards score | | | | 0.0031 (0.222) | | | |
| Unionization rate \times State worker protection score | | | | | -0.0555** (0.016) | | |
| State worker protection score | | | | | 0.0038* (0.099) | | |
| Unionization rate \times State right to organize score | | | | | | -0.0595*** (0.005) | |
| State right to organize score | | | | | | 0.0040 (0.112) | |
| Unionization rate \times Overall state score | | | | | | | -0.0770*** (0.005) |
| Overall state score | | | | | | | 0.0048* (0.098) |
| Firm size | 0.1259** (0.027) | 0.1116** (0.047) | 0.1096** (0.050) | 0.1191** (0.035) | 0.1159** (0.041) | 0.1144** (0.044) | 0.1137** (0.046) |
| Market-book ratio | -0.0730** (0.025) | -0.0759** (0.019) | -0.0781** (0.016) | -0.0762** (0.017) | -0.0791** (0.014) | -0.0787** (0.015) | -0.0797** (0.013) |
| Net PPE | -0.2946 (0.460) | -0.2974 (0.460) | -0.2816 (0.477) | -0.3134 (0.439) | -0.3166 (0.428) | -0.3298 (0.406) | -0.3353 (0.404) |
| Firm risk | 0.1151 (0.163) | 0.1106 (0.169) | 0.1095 (0.177) | 0.1159 (0.162) | 0.1114 (0.175) | 0.1112 (0.173) | 0.1125 (0.172) |
| ROA | 0.5156 (0.282) | 0.5030 (0.292) | 0.4976 (0.292) | 0.5316 (0.262) | 0.5090 (0.284) | 0.5012 (0.292) | 0.5112 (0.281) |
| Stock return | 0.0025 (0.973) | 0.0065 (0.928) | 0.0084 (0.908) | 0.0041 (0.956) | 0.0067 (0.926) | 0.0079 (0.913) | 0.0077 (0.916) |
| Log (firm age) | 0.1125 (0.202) | 0.1175 (0.184) | 0.1182 (0.183) | 0.1148 (0.194) | 0.1151 (0.193) | 0.1217 (0.170) | 0.1193 (0.178) |
| Percentage incentive pay | 0.8504*** (0.000) | 0.8648*** (0.000) | 0.8583*** (0.000) | 0.8683*** (0.000) | 0.8591*** (0.000) | 0.8763*** (0.000) | 0.8725*** (0.000) |
| Log (firm related wealth) | -0.0445 (0.266) | -0.0446 (0.269) | -0.0438 (0.277) | -0.0445 (0.259) | -0.0428 (0.287) | -0.0465 (0.247) | -0.0444 (0.267) |
| Founder CEO | 0.1757 (0.309) | 0.1344 (0.418) | 0.1588 (0.341) | 0.1559 (0.367) | 0.1471 (0.391) | 0.1273 (0.463) | 0.1332 (0.442) |
| Log (CEO age) | -0.3708 (0.493) | -0.4098 (0.442) | -0.4542 (0.398) | -0.3912 (0.470) | -0.4078 (0.453) | -0.4159 (0.438) | -0.4134 (0.444) |
| Log (CEO tenure) | -0.1415** (0.039) | -0.1456** (0.038) | -0.1506** (0.032) | -0.1404** (0.045) | -0.1426** (0.038) | -0.1443** (0.040) | -0.1424** (0.042) |
| CEO-Chair dummy | 0.0937 (0.453) | 0.1125 (0.356) | 0.1166 (0.345) | 0.1041 (0.402) | 0.1024 (0.412) | 0.1205 (0.321) | 0.1132 (0.358) |
| Log (Board size) | 0.7429*** (0.001) | 0.7707*** (0.001) | 0.7675*** (0.001) | 0.7633*** (0.002) | 0.7722*** (0.001) | 0.7761*** (0.001) | 0.7802*** (0.001) |
| Board independence | 1.7053** (0.020) | 1.6342** (0.026) | 1.6706** (0.021) | 1.6615** (0.026) | 1.6685** (0.026) | 1.6242** (0.028) | 1.6355** (0.028) |
| % Independent directors \geq Age 69 | -0.7683*** (0.001) | -0.8040*** (0.001) | -0.7982*** (0.001) | -0.8003*** (0.001) | -0.7777*** (0.001) | -0.8054*** (0.001) | -0.8042*** (0.001) |
| % Busy independent directors | 0.7736*** (0.000) | 0.7601*** (0.000) | 0.7667*** (0.000) | 0.7650*** (0.000) | 0.7732*** (0.000) | 0.7805*** (0.000) | 0.7740*** (0.000) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| No. Obs. | 7,158 | 7,158 | 7,158 | 7,158 | 7,158 | 7,158 | 7,158 |
| Pseudo R -squared | 0.182 | 0.245 | 0.246 | 0.245 | 0.244 | 0.246 | 0.246 |

Panel B: Marginal effects and binary interactions

| | Model (1) | Model (2) | Model (3) | Model (4) | Model (5) | Model (6) |
|------------------------------------------------------------|----------------------|-----------------------|---------------------|---------------------|----------------------|----------------------|
| Unionization rate | 0.0310 (0.368) | 0.2619** (0.011) | 0.2252** (0.012) | 0.1940** (0.018) | 0.2378*** (0.008) | 0.1139** (0.010) |
| Unionization rate × RTW | 0.1710** (0.028) | | | | | |
| RTW | -0.0161** (0.033) | | | | | |
| Unionization rate × Q4 State-level total unionization rate | | -0.3000*** (0.004) | | | | |
| Q4 State-level total unionization rate | | 0.0244* (0.067) | | | | |
| Unionization rate × Q4 State wage standards score | | | -0.3041* (0.056) | | | |
| Q4 State wage standards score | | | 0.0109 (0.427) | | | |
| Unionization rate × Q4 State worker protection score | | | | -0.1611 (0.169) | | |
| Q4 State worker protection score | | | | 0.0054 (0.755) | | |
| Unionization rate × Q4 State right to organize score | | | | | -0.1836** (0.032) | |
| Q4 State right to organize score | | | | | 0.0108 (0.273) | |
| Unionization rate × Q4 Overall state score | | | | | | -0.1813** (0.014) |
| Q4 Overall state score | | | | | | 0.0084 (0.345) |
| Additional control variables | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| No. Obs. | 7,158 | 7,158 | 7,158 | 7,158 | 7,158 | 7,158 |
| Pseudo R-squared | 0.245 | 0.244 | 0.244 | 0.241 | 0.244 | 0.244 |

Panel C: Marginal effect of *Unionization Rate* on *Use Consultant* for high and low levels of location-based labor strength measures

| Moderator | Marginal <i>Union Effect</i> when Moderator is High (or RTW=0) | Marginal <i>Union Effect</i> when Moderator is Low (or RTW=1) | Difference in <i>Union Effect</i> | P-value |
|-------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------|---------|
| RTW | 0.0310 (0.367) | 0.2020** (0.014) | -0.1710** | 0.026 |
| State-level total unionization rate | -0.0802 (0.117) | 0.2470*** (0.004) | -0.3273*** | 0.004 |
| State wage standards score | -0.0769 (0.236) | 0.2332*** (0.007) | -0.3102** | 0.018 |
| State worker protection score | -0.0834 (0.150) | 0.2353*** (0.009) | -0.3187** | 0.011 |
| State right to organize score | -0.1140* (0.055) | 0.2935*** (0.002) | -0.4075*** | 0.002 |
| Overall state score | -0.1221** (0.039) | 0.2879*** (0.002) | -0.4100*** | 0.002 |

Table 6

Unionization Intensity and Compensation Consultant Choice: Multinomial Probit Estimates

Table 6 provides maximum-likelihood multinomial probit estimates using three levels of compensation consultant choice in year $t+1$ as discrete outcomes on the unionization rate, its interaction with location based measures of union strength, and other explanatory variables. We adjust the robust standard errors for clustering at the CIC industry level and provide p -values in parentheses. *, **, and *** denotes significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

| | Specialist Category | Multiservice Category | Specialist Category | Multiservice Category | Specialist Category | Multiservice Category |
|---------------------------------------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|
| Unionization rate | -1.5640* (0.066) | -0.2130 (0.764) | 2.0109 (0.134) | 2.3187* (0.075) | 2.9215* (0.071) | 2.5626* (0.090) |
| Unionization rate × RTW | 2.9127** (0.048) | 0.9753 (0.456) | | | | |
| RTW | -0.3780** (0.043) | -0.1867 (0.313) | | | | |
| Unionization rate × State-level total unionization rate | | | -22.5419* (0.065) | -15.9753 (0.206) | | |
| State-level total unionization rate | | | 2.9749* (0.052) | 1.1562 (0.431) | | |
| Unionization rate × Overall state score | | | | | -0.0621** (0.027) | -0.0356 (0.201) |
| Overall state score | | | | | 0.0093*** (0.006) | 0.0003 (0.910) |
| Firm size | 0.1605** (0.013) | 0.0258 (0.657) | 0.1442** (0.034) | 0.0310 (0.595) | 0.1375** (0.042) | 0.0281 (0.637) |
| Market-book ratio | 0.0193 (0.637) | -0.0000 (0.999) | 0.0159 (0.692) | 0.0027 (0.947) | 0.0024 (0.950) | 0.0066 (0.875) |
| Net PPE | -0.6813*** (0.004) | -0.6202** (0.024) | -0.7258** (0.046) | -0.3905 (0.265) | -0.6806* (0.058) | -0.4167 (0.235) |
| Firm risk | 0.1664** (0.032) | 0.1402 (0.103) | 0.1574* (0.052) | 0.1822** (0.038) | 0.1530* (0.057) | 0.1805** (0.040) |
| ROA | -0.5550 (0.295) | -0.1152 (0.826) | -0.4152 (0.434) | 0.0306 (0.954) | -0.3566 (0.497) | -0.0235 (0.964) |
| Stock return | -0.0097 (0.890) | -0.0517 (0.497) | 0.0019 (0.977) | -0.0479 (0.519) | 0.0122 (0.855) | -0.0559 (0.458) |
| Log (firm age) | 0.1358* (0.084) | 0.1319 (0.106) | 0.1447* (0.069) | 0.1295 (0.109) | 0.1460* (0.064) | 0.1279 (0.111) |
| Percentage incentive pay | 0.9256*** (0.001) | 0.9983*** (0.000) | 0.9528*** (0.001) | 0.9651*** (0.000) | 0.9082*** (0.002) | 0.9854*** (0.000) |
| Log (firm related wealth) | -0.0111 (0.797) | -0.0370 (0.386) | -0.0097 (0.824) | -0.0341 (0.421) | -0.0099 (0.820) | -0.0316 (0.458) |
| Founder CEO | -0.1232 (0.635) | 0.2405 (0.294) | -0.0948 (0.705) | 0.2479 (0.254) | -0.1369 (0.592) | 0.2450 (0.262) |
| Log (CEO age) | -0.0120 (0.980) | -0.0987 (0.851) | -0.0286 (0.954) | -0.2170 (0.684) | -0.0732 (0.882) | -0.2465 (0.634) |
| Log (CEO tenure) | -0.1450** (0.030) | -0.0611 (0.392) | -0.1578** (0.019) | -0.0505 (0.467) | -0.1602** (0.017) | -0.0430 (0.536) |
| CEO-Chair dummy | 0.0727 (0.581) | 0.1710 (0.150) | 0.0980 (0.455) | 0.1806 (0.101) | 0.1076 (0.404) | 0.1637 (0.134) |
| Log (Board size) | 0.4827 (0.103) | 0.8790*** (0.001) | 0.5295* (0.068) | 0.8581*** (0.003) | 0.5820** (0.048) | 0.8460*** (0.003) |
| Board independence | 1.5766* (0.051) | 2.0026*** (0.008) | 1.5942** (0.043) | 1.8926** (0.011) | 1.5601** (0.049) | 1.9056** (0.010) |
| % Independent directors ≥ Age 69 | -0.3272 (0.187) | -0.6410** (0.026) | -0.3502 (0.167) | -0.6752** (0.022) | -0.3299 (0.195) | -0.7015** (0.018) |
| % Busy independent directors | 0.9794*** (0.001) | 0.6008*** (0.008) | 1.0326*** (0.000) | 0.6358*** (0.005) | 1.0411*** (0.000) | 0.6444*** (0.004) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| No. Obs. | 7,158 | | 7,158 | | 7,158 | |
| Wald Chi-squared | 1,562.28 | | 1748.2.10 | | 1,690.54 | |

Table 7
Compensation Consultant Use, CEO Pay Components, and Unionization Intensity:
Matched Pairs Analysis

Table 7 Panel A provides summary compensation component statistics for no-consultant firms and a matched sample of consultant-using firms using propensity scores of the likelihood of having a consultant in a given year based on the economic and corporate governance characteristics specified in Equation (2). Of the initial set of 489 treatment (no-consultant) firms, the 1:1 matching algorithm identifies 427 consultant-using matches resulting in an 87.3 percent match rate. Panel B (Panel C) reports mean (median) logged (1 plus) compensation components and CEO vega for portfolios of no-consultant (matched consultant-using firms, respectively) sorted into unionization rate quartiles. The number of observations for each subset is below the median. Column 6 provides *t*-statistic (Kruskal-Willis) *p*-values for the difference in Q4-Q1 means (medians).

Panel A: Compensation component summary statistics

| | No compensation consultant | | | Matched compensation consultant users | | | <i>T</i> -test <i>P</i> -value | K-W <i>P</i> -value |
|---------------------------|----------------------------|----------|--------|---------------------------------------|----------|--------|--------------------------------|---------------------|
| | Mean | St. Dev. | Median | Mean | St. Dev. | Median | | |
| Unionization rate | 0.061 | 0.053 | 0.045 | 0.061 | 0.068 | 0.031 | 0.974 | 0.078 |
| Log (Cash compensation) | 6.548 | 1.334 | 6.704 | 6.837 | 0.378 | 6.845 | 0.000 | 0.000 |
| Log (Equity compensation) | 7.575 | 1.613 | 7.950 | 8.320 | 1.024 | 8.434 | 0.000 | 0.000 |
| Log (Stock awards) | 4.186 | 3.766 | 5.866 | 5.948 | 3.423 | 7.496 | 0.000 | 0.000 |
| Log (Option awards) | 3.315 | 3.686 | 0.000 | 4.346 | 3.746 | 6.638 | 0.000 | 0.000 |
| Log CEO Vega | 3.597 | 2.182 | 4.359 | 4.123 | 1.925 | 4.708 | 0.000 | 0.001 |

Panel B: Treatment (no compensation consultant) sample

| Component | Unionization rate Q1 (No. Obs.= 113) | Unionization rate Q2 (No. Obs.= 107) | Unionization rate Q3 (No. Obs.= 101) | Unionization rate Q4 (No. Obs.= 106) | Q4 – Q1 <i>P</i> -value |
|---------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|----------------------------|
| Log (Cash compensation) | 6.476 (6.632) | 6.509 (6.634) | 6.673 (6.775) | 6.545 (6.786) | 0.690 (0.161) |
| Log (Equity compensation) | 7.707 (7.969) | 7.639 (8.121) | 7.312 (7.745) | 7.634 (7.913) | 0.713 (0.738) |
| Log (Stock awards) | 3.570 (3.065) | 4.654 (6.908) | 3.712 (0.015) | 4.822 (6.398) | 0.011 (0.047) |
| Log (Option awards) | 4.056 (5.876) | 3.222 (0) | 3.273 (0) | 2.657 (0) | 0.005 (0.006) |
| Log (CEO Vega) | 3.937 (4.441) | 3.618 (4.359) | 3.720 (4.409) | 3.097 (4.029) | 0.004 (0.007) |

Panel C: Propensity score-matched (consultant) sample

| Component | Unionization rate Q1 (No. Obs.= 109) | Unionization rate Q2 (No. Obs.= 107) | Unionization rate Q3 (No. Obs.= 105) | Unionization rate Q4 (No. Obs.= 106) | Q4 – Q1 <i>P</i> -value |
|---------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|----------------------------|
| Log (Cash compensation) | 6.786 (6.803) | 6.767 (6.728) | 6.897 (6.894) | 6.899 (6.891) | 0.019 (0.033) |
| Log (Equity compensation) | 8.323 (8.425) | 8.191 (8.368) | 8.495 (8.479) | 8.272 (8.413) | 0.728 (0.747) |
| Log (Stock awards) | 5.981 (7.608) | 5.744 (7.398) | 6.039 (7.379) | 6.031 (7.527) | 0.914 (0.428) |
| Log (Option awards) | 4.303 (6.621) | 4.197 (6.554) | 4.660 (6.824) | 4.230 (6.537) | 0.886 (0.666) |
| Log (CEO Vega) | 4.104 (4.639) | 4.147 (4.670) | 4.266 (4.903) | 3.977 (4.769) | 0.645 (0.553) |

Table 8
2009 SEC Disclosure Requirement, CEO Pay Components, and Unionization Intensity:
Matched Pairs Analysis

Table 8 provides mean (median) CEO compensation components and CEO vega for firms that switched to a related specialist consultant firm following the 2009 SEC disclosure rule change and a matched sample of firms that stayed with the same multiservice consultant firm over 2009-2012 for portfolios of firms sorted by the *Unionization rate*. The matched firms are identified using propensity scores of the likelihood of having a consultant in a given year based on the economic and corporate governance characteristics specified in Equation (2). Of the initial set of 232 available treatment (no-consultant) firms, the 1:1 matching algorithm identifies 173 consultant-using matches resulting in a 74.6 percent match rate. The number of observations for each subset is below the median. Column 4 and Column 7 provide *t*-statistic (Kruskal-Willis) *p*-values for the difference in Q4-Q1 means (medians).

Panel A: Compensation component summary statistics

| | Related specialist consultant switchers | | | Matched multiservice consultant stayers | | | <i>T</i> -test <i>P</i> -value | K-W <i>P</i> -value |
|---------------------------|-----------------------------------------|----------|--------|-----------------------------------------|----------|--------|--------------------------------|---------------------|
| | Mean | St. Dev. | Median | Mean | St. Dev. | Median | | |
| Unionization rate | 0.100 | 0.116 | 0.058 | 0.082 | 0.082 | 0.060 | 0.099 | 0.600 |
| Log (Cash compensation) | 7.015 | 0.405 | 6.916 | 6.915 | 0.313 | 6.909 | 0.011 | 0.018 |
| Log (Equity compensation) | 8.727 | 0.690 | 8.699 | 8.474 | 0.925 | 8.618 | 0.004 | 0.016 |
| Log (Stock awards) | 7.094 | 2.536 | 7.812 | 5.929 | 3.467 | 7.541 | 0.000 | 0.032 |
| Log (Option awards) | 4.922 | 3.705 | 6.909 | 5.124 | 3.485 | 6.961 | 0.603 | 0.010 |
| Log CEO Vega | 4.488 | 1.618 | 4.856 | 4.490 | 1.679 | 4.971 | 0.990 | 0.954 |

Panel B: Comparisons of compensation components

| Component | Related specialist consultant switchers | | | Matched multiservice consultant stayers | | |
|---------------------------|-----------------------------------------|----------------------------------------|----------------------------|-----------------------------------------|----------------------------------------|----------------------------|
| | Unionization rate Q1 (No. Obs.= 46) | Unionization rate Q4 (No. Obs.= 43) | Q4 – Q1 <i>P</i> -value | Unionization rate Q1 (No. Obs.= 45) | Unionization rate Q4 (No. Obs.= 43) | Q4 – Q1 <i>P</i> -value |
| Log (Cash compensation) | 6.958 (6.923) | 7.065 (6.963) | 0.181 (0.435) | 6.844 (6.888) | 6.968 (6.948) | 0.064 (0.020) |
| Log (Equity compensation) | 8.719 (8.703) | 8.631 (8.790) | 0.571 (0.799) | 8.490 (8.576) | 8.444 (8.675) | 0.827 (0.673) |
| Log (Stock awards) | 7.013 (7.865) | 6.701 (8.007) | 0.604 (0.660) | 5.653 (7.397) | 5.867 (7.799) | 0.784 (0.383) |
| Log (Option awards) | 5.267 (7.152) | 4.743 (6.856) | 0.503 (0.421) | 5.354 (7.296) | 3.724 (5.569) | 0.035 (0.008) |
| Log (CEO Vega) | 4.718 (4.970) | 4.436 (4.440) | 0.336 (0.229) | 4.872 (4.926) | 3.840 (4.429) | 0.003 (0.034) |

Table 9
CEO Pay Components, Unionization Intensity, and Compensation Consultants:
Cross-Sectional Estimates

Table 9 presents regression estimates of logged (1 plus) CEO total compensation, cash, and equity-linked compensation components regressed on the *Unionization rate* and its interaction with a binary variable equal to one if the firm uses a compensation consultant in a given year for the 2006-2018 period. The specification and construction of the additional control variables follow Huang, Jiang, Lie, Que (2014, Table 2 Model 1). We adjust the robust standard errors for clustering at the CIC industry level and provide *p*-values in parentheses. *, **, and *** denotes significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

| | Model (1) Log (TDC1) | Model (2) Log (Cash compensation) | Model (3) Log (Equity) | Model (4) Log (Stock Awards) | Model (5) Log (Option Awards) | Model (6) Log (Vega) |
|------------------------------------|-------------------------|-----------------------------------------|---------------------------|------------------------------------|-------------------------------------|-------------------------|
| Unionization rate | -2.6135*** (0.002) | -2.0860** (0.026) | -4.9478** (0.041) | 0.0789 (0.983) | -4.8164* (0.068) | -5.4613** (0.019) |
| Unionization rate × Use consultant | 2.7673*** (0.001) | 2.1227** (0.016) | 5.4235** (0.021) | 2.7795 (0.393) | 4.8431** (0.046) | 5.4717** (0.012) |
| Use consultant | -0.0736 (0.374) | -0.1709 (0.103) | -0.0551 (0.726) | 0.4373* (0.087) | 0.0648 (0.836) | -0.3040 (0.106) |
| Firm size | 0.3170*** (0.000) | 0.1669*** (0.000) | 0.4055*** (0.000) | 0.5791*** (0.000) | 0.4879*** (0.003) | 0.2733*** (0.002) |
| Stock return | 0.1619*** (0.000) | 0.0484** (0.020) | 0.2097*** (0.000) | -0.1802 (0.128) | 0.2048* (0.083) | 0.0990 (0.148) |
| Lagged stock return | 0.1464*** (0.000) | 0.0323 (0.155) | 0.1856*** (0.004) | 0.1754 (0.246) | -0.0353 (0.776) | 0.0150 (0.779) |
| ROA | 0.1801 (0.211) | 0.2194*** (0.008) | 0.2395 (0.438) | 0.3740 (0.562) | -1.3438** (0.023) | 0.9444*** (0.009) |
| Lagged ROA | -0.0769 (0.429) | 0.1050 (0.358) | 0.0424 (0.805) | 0.1508 (0.792) | -1.9317*** (0.003) | 0.0929 (0.684) |
| Lagged leverage | -0.2677*** (0.001) | 0.0164 (0.856) | -0.3183** (0.011) | -1.0668* (0.071) | -0.1964 (0.689) | -0.2669 (0.423) |
| Lagged book to market | -0.2447*** (0.006) | 0.0807 (0.411) | -0.2989*** (0.007) | 0.5550 (0.228) | -1.4816*** (0.000) | -0.1141 (0.661) |
| Lagged volatility | -0.4018 (0.529) | 0.3403 (0.550) | -0.4754 (0.507) | -1.1869 (0.386) | 1.8419 (0.331) | -0.6434 (0.472) |
| Lagged investment | -0.2736 (0.576) | -0.3430 (0.555) | -0.5851 (0.452) | -2.2159 (0.327) | 3.4825* (0.073) | 1.4521 (0.123) |
| Lagged tangibility | -0.0310 (0.877) | 0.0862 (0.712) | -0.2426 (0.497) | -0.4975 (0.661) | 0.0706 (0.943) | -0.1319 (0.826) |
| Lagged sales growth | 0.0022 (0.962) | -0.0335 (0.312) | -0.0487 (0.558) | -0.4811** (0.045) | 0.1535 (0.632) | -0.2102 (0.116) |
| Lagged R&D | -0.3919 (0.268) | 0.3004 (0.513) | -1.3912*** (0.008) | -0.8564 (0.816) | -1.5897 (0.356) | -0.0548 (0.962) |
| CEO tenure | 0.0508** (0.034) | 0.0666*** (0.009) | 0.0333 (0.380) | -0.1072 (0.196) | -0.0882 (0.265) | 0.4033*** (0.000) |
| CEO-Chair dummy | 0.0073 (0.860) | -0.0709 (0.143) | 0.0165 (0.791) | -0.0583 (0.740) | -0.0577 (0.735) | -0.0877 (0.339) |
| Log (industry capital labor) | 0.0245 (0.760) | -0.0867 (0.165) | 0.0658 (0.618) | 0.1312 (0.699) | -0.3090 (0.379) | -0.2237 (0.219) |
| Log (industry age) | 0.1825 (0.308) | -0.0791 (0.652) | 0.1330 (0.591) | 0.3696 (0.687) | 0.9807 (0.214) | -0.8603 (0.104) |
| Industry R&D | 0.8672 (0.206) | -0.5872 (0.225) | 1.7260* (0.097) | -1.1289 (0.707) | -0.6877 (0.819) | 1.7546 (0.562) |
| Firm fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| No. Obs. | 7,703 | 7,703 | 7,703 | 7,654 | 7,654 | 7,192 |
| R-squared | 0.716 | 0.711 | 0.646 | 0.544 | 0.532 | 0.682 |

Table 10
Unionization Intensity and Cash Holdings

Table 10 presents regression estimates of cash holdings regressed on the *Unionization rate* and its interaction with a binary variable equal to one if the firm uses a compensation consultant in a given year for the 2006–2018 period. The specification and construction of the additional control variables follow Klasa, Maxwell, Ortiz-Molina (JFE 2009, Table 3). We adjust the robust standard errors for clustering at the CIC industry level and provide *p*-values in parentheses. *, **, and *** denotes significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

| | Execucomp Manufacturing Firms (Models 1-4) | | | | | All Execucomp Firms |
|----------------------------------------------------------------------------|---------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | KMO-M Reported Results (Table 3 Model 1) | Model (1) 1992-2018 | Model (2) 1992-2005 | Model (3) 2006-2018 | Model (4) 2006-2018 | Model (5) 2006-2018 |
| Unionization rate | -3.563*** (0.000) | -2.3534*** (0.000) | -2.8039*** (0.000) | -2.3259*** (0.001) | -1.2198 (0.157) | -0.4248 (0.462) |
| Unionization rate × No consultant | | | | | -2.3165* (0.094) | -2.2046** (0.013) |
| No consultant | | | | | 0.2696 (0.364) | 0.2499 (0.207) |
| High industry HHI dummy | -0.2406*** (0.002) | -0.1865** (0.027) | -0.2739*** (0.007) | -0.2404* (0.053) | -0.2404* (0.053) | -0.1188 (0.115) |
| Log (real market value of assets) | -0.0827*** (0.000) | -0.0322 (0.207) | -0.1275*** (0.000) | -0.1191** (0.012) | -0.1191** (0.012) | -0.1414*** (0.000) |
| Market-book assets | 0.1229*** (0.000) | 0.0907*** (0.001) | 0.1619*** (0.000) | 0.1719*** (0.001) | 0.1719*** (0.001) | 0.1830*** (0.000) |
| R&D/sales | 3.3696*** (0.000) | 2.8503*** (0.000) | 3.9198*** (0.000) | 3.2884*** (0.000) | 3.2884*** (0.000) | 3.4694*** (0.000) |
| Capital expenditures/book assets | 1.7116*** (0.004) | 2.5292*** (0.000) | 1.0769 (0.222) | 2.0352 (0.219) | 2.0352 (0.219) | 2.0042*** (0.004) |
| Total leverage | -1.3602*** (0.000) | -1.3879*** (0.000) | -1.2102*** (0.007) | -1.1497 (0.145) | -1.1497 (0.145) | -0.6779* (0.063) |
| Investment grade dummy (SPCSR _M ≥ B+) | -0.0784 (0.383) | -0.0830 (0.486) | -0.0690 (0.524) | 0.1289 (0.438) | 0.1289 (0.438) | 0.0567 (0.533) |
| Dividend paying dummy | 0.0458 (0.574) | -0.0439 (0.645) | 0.1427 (0.140) | -0.0917 (0.517) | -0.0917 (0.517) | 0.0306 (0.757) |
| Operating income/book assets | 0.6128*** (0.007) | 0.3864** (0.029) | 0.8313** (0.012) | 0.6306* (0.098) | 0.6306* (0.098) | 0.7589*** (0.004) |
| Net working capital/book assets | -1.5017*** (0.000) | -1.5900*** (0.000) | -1.4141*** (0.000) | -1.2584** (0.011) | -1.2584** (0.011) | -1.4633*** (0.000) |
| Coefficient of variation of median industry operating income / book assets | 0.0543** (0.039) | 0.0608 (0.226) | 0.0468* (0.087) | 0.1352*** (0.001) | 0.1352*** (0.001) | 0.1266*** (0.000) |
| Net PPE/book assets | -1.3359*** (0.000) | -0.9389*** (0.000) | -1.4939*** (0.000) | -2.1776*** (0.001) | -2.1776*** (0.001) | -1.5470*** (0.000) |
| Import penetration | -27.8968 (0.236) | -61.0564** (0.013) | -8.8309 (0.791) | -75.6036 (0.125) | -75.6036 (0.125) | |
| Firm had its IPO during last 5 years dummy | -0.5642** (0.032) | -0.5311 (0.374) | -0.6290** (0.022) | -0.9667*** (0.002) | -0.9667*** (0.002) | -0.2716 (0.295) |
| Industry fixed effects | No | Yes | Yes | Yes | Yes | Yes |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| No. Obs. | 29,382 | 7,155 | 3,279 | 3,876 | 1,925 | 4,283 |
| R-squared | 0.052 | 0.287 | 0.311 | 0.293 | 0.267 | 0.247 |

Appendix Table 1

Governance-related Shareholder Proposals Sponsored by Labor Unions and Union-affiliated Funds

Appendix Table 1 provides a breakdown of the 1,051 governance-related proposals sponsored by labor unions and union-related funds in Table 3 over the 2006-2018 period.

| Proposal issue | No. Proposals |
|--------------------------------------------------------------------|---------------|
| Panel A: Compensation-related proposals | |
| Double Trigger on Equity Plans | 60 |
| Terminate Executive compensation Plan | 48 |
| Stock Retention/Holding Period | 46 |
| Pay For Superior Performance | 38 |
| Performance-Based and/or Time-Based Equity Awards | 38 |
| Advisory Vote to Ratify Named Executive Officers' Compensation | 36 |
| Eliminate or Restrict Severance Agreements (Change-in-Control) | 26 |
| Compensation- Miscellaneous Company Specific | 21 |
| Establish SERP Policy | 18 |
| Adopt Anti Gross-up Policy | 15 |
| Submit SERP to Shareholder Vote | 14 |
| Limit/Prohibit Executive Stock-Based Awards | 13 |
| Disclose Information on Compensation Consultant | 12 |
| Clawback of Incentive Payments | 11 |
| Report on Pay Disparity | 10 |
| Death Benefits/Golden Coffins | 10 |
| Submit Severance Agreement (Change-in-Control) to Shareholder Vote | 10 |
| Link Executive Pay to Social Criteria | 7 |
| Limit Executive Compensation | 4 |
| Increase Disclosure of Executive Compensation | 1 |
| Review Executive Compensation | 1 |
| SH - Executive/Employee Compensation | 1 |
| Total Compensation-related proposals | 440 |
| Panel B: Board-related proposals | |
| Require Independent Board Chairman | 90 |
| Declassify the Board of Directors | 56 |
| Company-Specific Board-Related | 20 |
| Board Diversity | 7 |
| Limit Composition of Committee(s) to Independent Directors | 5 |
| Establish Other Governance Board Committee | 4 |
| Require Majority of Independent Directors on Board | 3 |
| Amend Articles/Bylaws/Charter -- Removal of Directors | 2 |
| Total Board-related Proposals | 187 |
| Panel C: Voting-related Proposals | |
| Require a Majority Vote for the Election of Directors | 316 |
| Restore or Provide for Cumulative Voting | 14 |
| Reduce Supermajority Vote Requirement | 2 |
| Provide for Confidential Voting | 1 |
| Amend Vote Requirements to Amend Articles/Bylaws/Charter | 1 |
| Total Voting-related Proposals | 334 |

Appendix Table 1 (cont'd)

| Panel D: Antitakeover-related Proposals | |
|-------------------------------------------------------------|-----------|
| Approve/Amend Terms of Existing Poison Pill | 2 |
| Submit Shareholder Rights (Poison Pill) to Shareholder vote | 2 |
| Eliminate or Restrict Shareholder Rights Plan (Poison Pill) | 1 |
| Total Antitakeover-related proposals | 5 |
| Panel E: Miscellaneous Proposals | |
| Company Specific-Governance Related | 18 |
| SH - Misc. Governance | 14 |
| Company-Specific -- Miscellaneous | 9 |
| Reincorporate in Another State | 8 |
| Company-Specific -- Shareholder Miscellaneous | 8 |
| Adopt Policy on Succession Planning | 7 |
| Auditor Rotation | 5 |
| Adopt Proxy Access Right | 5 |
| Adopt Retention Ratio for Executives/Directors | 3 |
| Adjust/Remove Exclusive Venue Provisions | 3 |
| Employment Contract | 2 |
| Amend Articles/Bylaws/Charter -- Call Special Meetings | 1 |
| Reimburse Proxy Contest Expenses | 1 |
| Miscellaneous – Equity Related | 1 |
| Total Miscellaneous Proposals | 85 |

Figure 1
Trends in Industry Unionization Intensity and Labor Market Characteristics

Figure 1 illustrates average Census Industry Code (CIC)-level unionization rates and corresponding state-level labor market characteristics for 37,314 non-financial and non-utility firms in the Execucomp dataset. The state location is based on the historical headquarter location. The industry unionization rate and right-to-work status of the state location are available for the 1992-2018 period. The remaining state-level characteristics are available beginning in 1997. We obtain unionization rate data from www.unionstats.com, and the state level characteristics from the Geographic Profile data archive maintained by the Bureau of Labor Statistics (<https://www.bls.gov/opub/geographic-profile/archive.htm>).

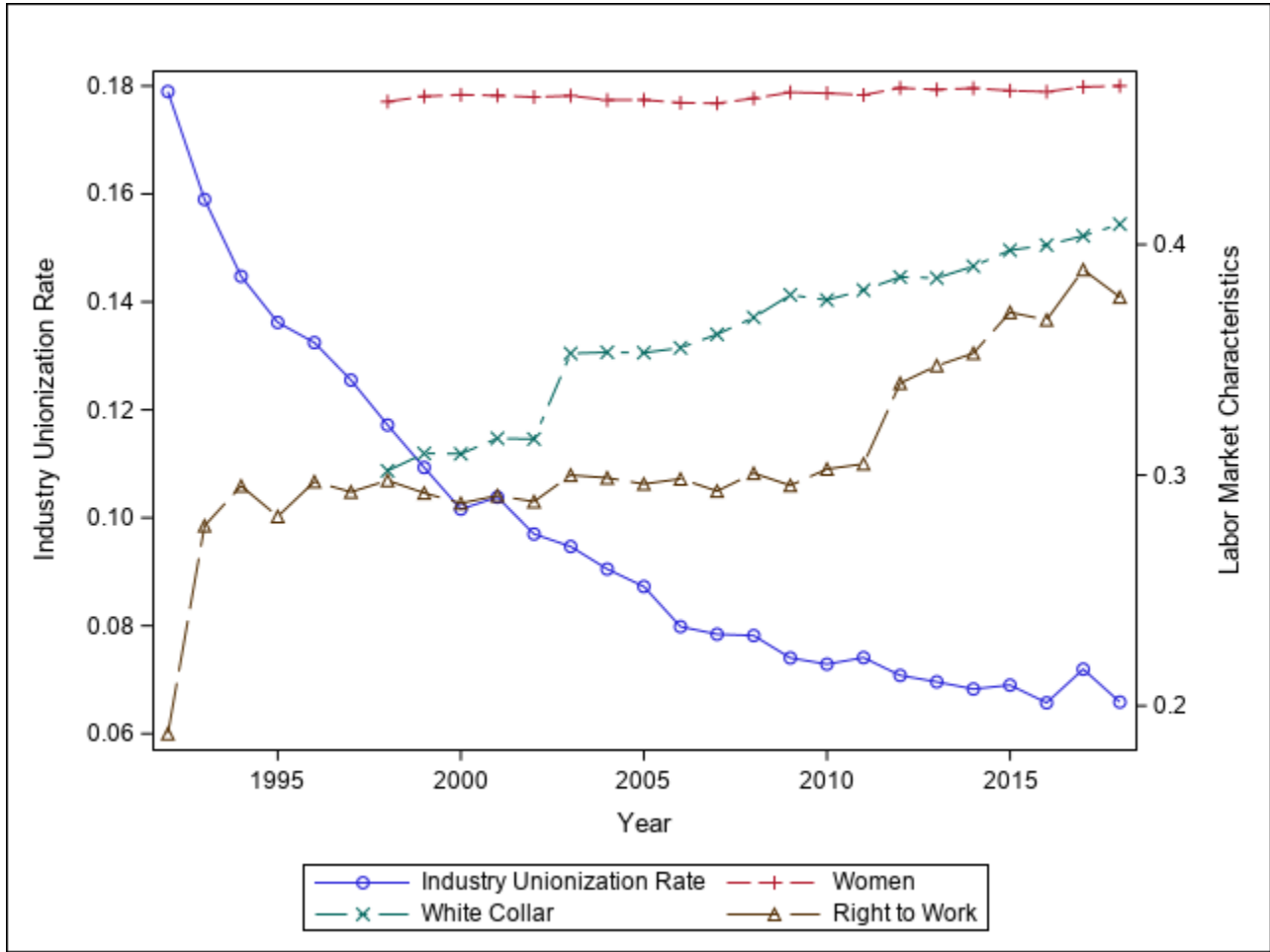


Figure 2

Trends in State-level Total Unionization Rates for Firms in the 50 Highest and Lowest Unionized Industries

Figure 2 illustrates trends in firms of the 50 highest and lowest unionized CIC industries and state-level total (public and private) unionization rates in which these firms are located based on the historical headquarter location over the 1992-2018 period. We obtain the industry-level unionization rate from www.unionstats.com and the state-level unionization rate from the Geographic Profile data archive maintained by the Bureau of Labor Statistics.

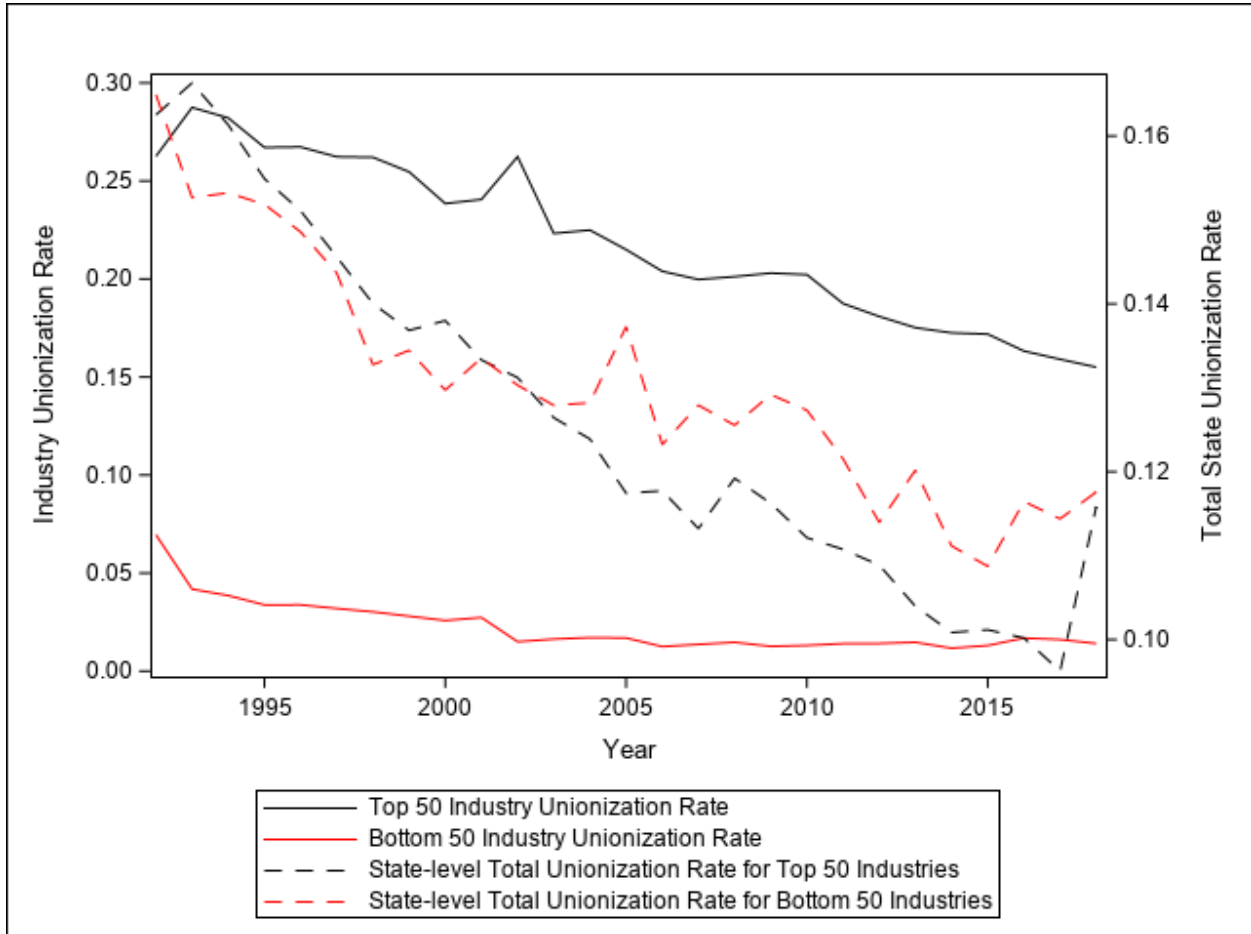


Figure 3

Unionization Rate Coefficient Estimates by Year

Figure 3 plots rolling five-year average yearly *Unionization rate* coefficient estimates using logged total compensation (TDC1) as the dependent variable using the specification of Equation 1.

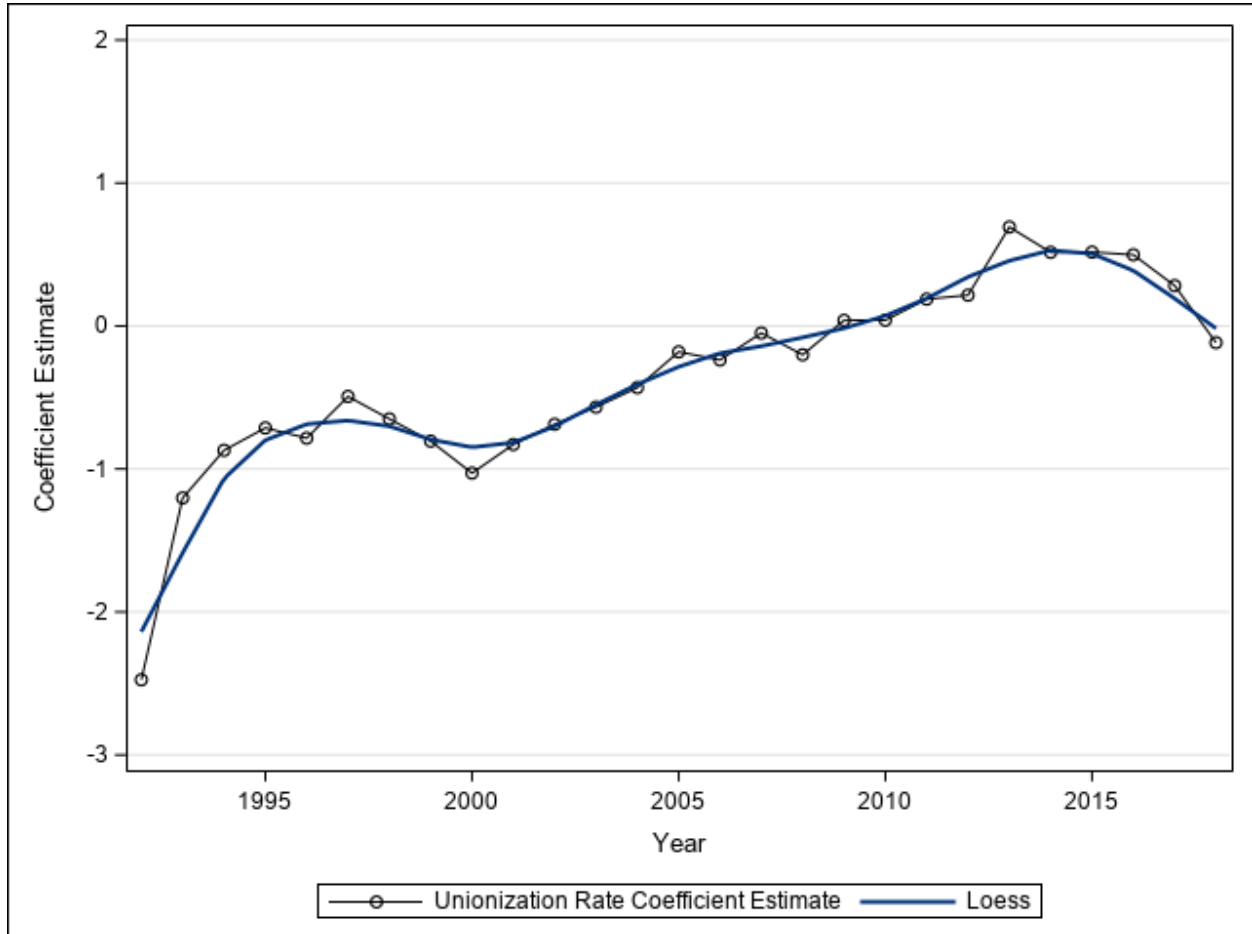


Figure 4
Trends in Compensation Consultant Use for Firms in the Top-50 and Bottom-50 Unionized Industries

Figure 4 illustrates trends in the average *Unionization rate* of firms in the 50 highest and lowest unionized CIC industries and compensation consultant use among these firms for the 2006-2018 period, respectively, using information from the Unionstats.com website and the ISS Incentive Lab dataset.

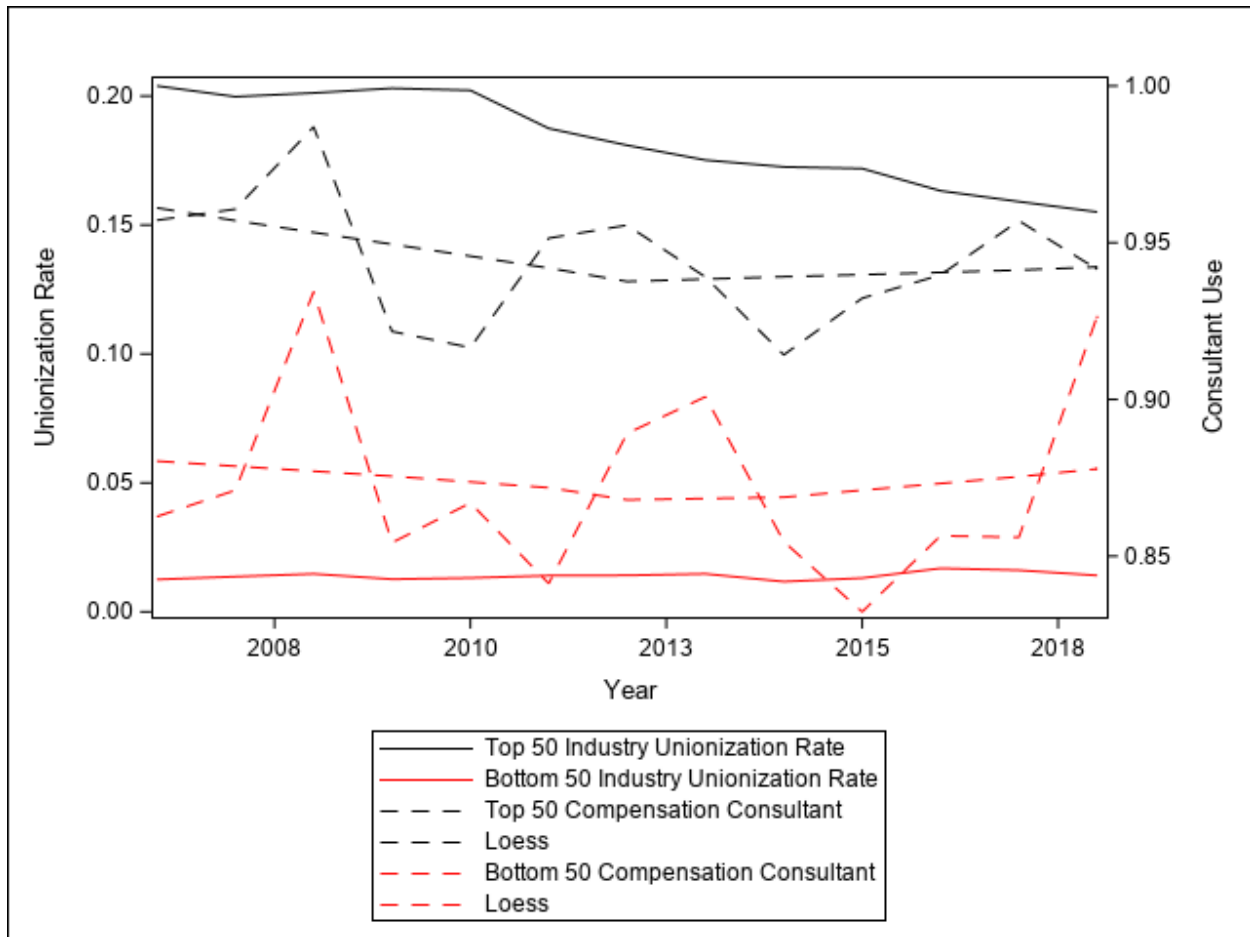


Figure 5
Trends in Unionization Intensity and Compensation Consultant Use

Figure 5 illustrates trends in the average *Unionization rate*, the proportion of firms using a compensation consultant, and the type of consultant used for the 2006-2018 period, using information from the Unionstats.com website and the ISS Incentive Lab dataset.

