When the Tax Break Breaks: CEO Pay and Turnover Following TCJA*

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ABSTRACT

We examine how companies adjust CEO compensation in response to the Tax Cuts and Jobs Act (TCJA) of 2017, which eliminated the tax deductibility of performance-based pay. By comparing firms with high and low levels of performance-based pay before the TCJA, as well as CEOs with unaffected top executives within the same firm and year, we find that both CEO performance pay and total compensation decrease following the TCJA when compared to the control group. Consistent with our theoretical framework, we also find that by increasing the after-tax cost of compensation, the TCJA created significant labor market disruptions, with some firms letting go of higher-ability CEOs and hiring less expensive replacements.

Keywords: CEO compensation, performance pay, TCJA, CEO turnover, executive labor market
JEL codes: G34, J24, J41

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I. Introduction

Executive compensation has been at the center of academic and policy debates for decades, with particular attention paid to the role of tax policy in shaping compensation practices (see, e.g., Hall and Liebman, 2000, Goolsbee, 2000, Perry and Zenner, 2001, Rose and Wolfram, 2002, Frydman and Molloy, 2011, Frydman and Saks, 2010, Bird, 2018, Murphy, 2013). This interest is partly driven by the fact that legislators have generally avoided directly capping the level of pay and have instead focused on taxation as a primary tool for influencing executive compensation in the United States (Edmans, Gabaix, and Jenter, 2017, Murphy and Jensen, 2018).[1]

One of the most significant tax-based interventions came in 1993, when Congress passed Section 162(m) of the Internal Revenue Code (IRC), which limited the tax deductibility of non-performance-based executive compensation to $1 million while leaving performance-based pay fully deductible. Although the policy was intended to curb CEO pay and better align managerial incentives with shareholder interests, critics argue that it may have inadvertently prompted firms to adopt high levels of performance-based pay solely for tax reasons, often replacing discretionary plans with overly formulaic ones (Murphy and Oyer, 2004).

The Tax Cuts and Jobs Act (TCJA) of 2017 marked a fundamental shift in executive compensation tax policy by eliminating the performance-pay exception, thereby significantly expanding the limits on the deductibility of executive pay and subjecting all forms of executive compensation to the same tax treatment.[2] This regulatory

[1]Recent examples include Senator Bernie Sanders' introduction of the "Tax Excessive CEO Pay Act," which would impose higher corporate tax rates on companies with high CEO-to-median-worker pay ratios, and San Francisco's Proposition L, the "Overpaid Executive Tax," passed in 2020, which applies a surtax to companies doing business in the city where the CEO-to-median-worker pay ratio exceeds 100:1. Murphy and Jensen (2018) argue that one reason Congress has avoided directly capping CEO pay is that such caps could interfere with or override state-level rules.

[2]In 2017, the average firm in our sample had $4.7 million, or 29%, of non-deductible executive

change provides a unique empirical setting to investigate whether firms had previously maintained high levels of performance-based pay primarily to capture tax benefits. If firms' reliance on performance-based pay was driven by tax considerations rather than by economic fundamentals, such as the tradeoff between higher required risk premium (Holmstrom and Milgrom, 1987, Albuquerque, Albuquerque, Carter, and Dong, 2024) and potential gains in firm performance, prudent risk-taking, and reduced agency costs (Morgan and Poulsen, 2001, Jensen and Murphy, 1990, Coles, Daniel, and Naveen, 2006, Shue and Townsend, 2017, Mehran, 1995), then we would expect a significant decline in such compensation following the elimination of its preferential tax treatment.

In this paper, we exploit the TCJA's elimination of the performance-based pay deduction to examine how tax policy affects both the structure and level of CEO compensation. We motivate our empirical analysis with a simple moral hazard model that explores how the loss of deductibility for performance-based pay influences compensation design and CEO selection when firms either hire a given candidate or choose among candidates of varying ability. The model predicts that, following the TCJA, firms reduce their reliance on performance-based pay, leading to lower total CEO compensation and an ambiguous effect on non-performance-based pay. In addition, the higher after-tax cost of executive compensation may prompt firms to replace high-ability CEOs with less able but more affordable ones. As a result, the negative impact of the TCJA on performance-based pay and total compensation is expected to be greater when there is CEO turnover.

To empirically evaluate these predictions, we implement two identification strategies. The first is a simple difference-in-differences design that exploits cross-sectional variation in pre-TCJA exposure, since firms with higher levels of performance-based pay prior to the reform faced stronger tax-related incentives to adjust their compensation practices.[3]

compensation under Section 162(m) rules, and $11.7 million, or 74%, under the new TCJA rules.

[3]Specifically, the loss of the tax deduction would apply to $13.4 million, or 54%, of executive com-

The second, a triple-difference strategy, additionally leverages the fact that compensation for executives ranked below the top five was never subject to deductibility limits, making them an effective control group and enabling within–firm-year comparisons. The latter is particularly important given concerns raised in prior work (De Simone, McClure, and Stomberg, 2022, Luna, Schuchard, and Stanley, 2023) that the TCJA, as a comprehensive reform, may have affected firms through other provisions. Accordingly, in our triple-difference estimation, we compare firms with high versus low pre-TCJA performance-based pay and CEOs to unaffected executives to isolate the effects of the policy change.

Consistent with the model's predictions, we find that CEO performance-based pay decreased by approximately 33% following the tax reform, relative to the control group. At the same time, we find no significant effects on non-performance-based CEO pay in the triple-difference specifications. The specific nature of these compensation adjustments—occurring in performance-based components without corresponding changes to fixed compensation—strongly suggests that companies were reversing previously tax-driven compensation arrangements.

Changes in the design of performance-based pay following the TCJA offer insight into which elements were primarily structured to take advantage of Section 162(m) tax deductions, and which were used for other reasons, such as aligning executives' interests with those of shareholders. To better understand these changes, we examine which groups of performance metrics underwent significant adjustments following the TCJA. Relative to the control group, treated-firm CEOs experience smaller declines in short-term and accounting-based performance pay, and larger declines in long-term and stock price-based performance pay.

We next examine whether the repeal of tax deductions for performance-based ex-

pensation for treated firms, compared to $1.9 million, or 22%, for control firms following the TCJA.

ecutive pay affects not only compensation levels and structure, but also the broader executive labor market. The model suggests that firms may opt to replace higher-ability CEOs with lower-ability ones when they can no longer afford to retain the former. In effect, the tax deduction had previously enabled firms to offer higher compensation; once it was eliminated, firms had to reconsider how to retain executives who had become more expensive on an after-tax basis.

Consistent with the model, we find that the loss of compensation deductibility prompts treated firms to offer lower CEO compensation following the TCJA. While all firms showed an upward trend in CEO compensation during the sample period, firms with high pre-TCJA performance-based pay exhibited a 16% smaller increase relative to control firms after the tax change. As a result, CEO turnover increases among treated firms with higher-ability CEOs (proxied by higher stock returns). Specifically, treated firms with high stock returns experience a 2.5% higher likelihood of CEO turnover relative to control firms following the TCJA. This increase in turnover is concentrated in states with weaker enforcement of non-compete agreements, consistent with the idea that tax-motivated CEO departures are more likely when executives face lower personal costs of mobility. We further find that firms tend to replace departing higher-ability CEOs with less expensive successors.

This pattern of increased CEO turnover among highly skilled executives aligns with Murphy and Jensen (2018), who argue that regulatory interventions often lead to unintended consequences and may impose significant costs on firms. Consistent with this view, we find that the removal of tax deductibility for performance-based pay adversely affects firm value, holding other components of the tax reform constant. Specifically, we observe a statistically significant negative relation between the proportion of CEO performance-based pay and abnormal stock returns in response to news about the repeal

of performance-based pay deductibility under the TCJA, with an average firm experiencing a $17 million decline in value.

Although our two identification strategies comprehensively account for potential differences between treated and control firms and significantly reduce the scope for alternative explanations, we conduct a series of additional tests to further address remaining concerns. First, we replicate our main tests after matching treated and control firms on industry and firm size, measured in the year prior to TCJA enactment. Second, we employ an alternative identification strategy that takes advantage of the fact that the TCJA applied only to U.S.-incorporated public firms and did not affect firms incorporated in other countries. For these analyses, we use compensation data on international firms sourced from IncentiveLab. Since international firms in IncentiveLab are generally different from U.S. firms—particularly because they tend to be smaller—we apply propensity score matching based on industry and firm size and then compare trends in CEO pay between the matched international firms and U.S. firms. Third, to address the concern that the post-period in our study includes an unusual time potentially affected by the onset of the COVID-19 pandemic, we re-estimate our baseline results excluding the year 2020. Across all of these robustness checks, our results remain unchanged.

Our paper makes several important contributions to the literature on executive compensation and tax policy. While early studies examining the 1993 implementation of Section 162(m) found mixed evidence on its effect in shaping compensation practices (Balsam and Ryan, 1996, Hall and Liebman, 2000, Perry and Zenner, 2001, Harris and Livingstone, 2002, Rose and Wolfram, 2002), and more recent work suggests minimal impact of TCJA on the level and mix of compensation (De Simone, McClure, and Stomberg, 2022, Luna, Schuchard, and Stanley, 2023), we use a novel identification strategy that allows us to effectively control for other effects of the tax reform and provide new evidence

that tax policy can create significant distortions in compensation design. Our extended sample period through 2021 reveals that firms with high pre-TCJA performance-based pay made substantial adjustments once the tax advantage was eliminated. These findings suggest that some firms had maintained excessively high levels of performance-based pay primarily to capture tax benefits under Section 162(m), thereby challenging the conventional view that tax rules have minimal effects on executive compensation.

We also demonstrate that tax policy can affect not only the level and structure of executive pay, but also firm-CEO matching, with some firms opting to replace higher-ability CEOs with less expensive counterparts once the after-tax cost of compensation increases. Our results therefore suggest that policymakers should carefully consider how tax incentives interact with labor market forces when designing regulations aimed at influencing executive compensation practices.

II. Institutional Background and Related Literature

A. Evolution of Tax Policy Regarding Executive Pay

The tax treatment of executive compensation underwent a fundamental shift in 1993 when Congress enacted Section 162(m) of the Internal Revenue Code as part of the Omnibus Budget Reconciliation Act. This legislation introduced a critical distinction between performance-based and non-performance-based executive compensation. While it limited the tax deductibility of fixed compensation to $1 million per year for "covered employees" (defined initially as the CEO and the four other highest-paid executives whose compensation was disclosed in the proxy statement), it preserved unlimited deductibility for qualified performance-based compensation.

Following changes to the SEC's disclosure rules in 2006, which required firms to

disclose the compensation of the CEO, CFO, and the next three highest-paid executives, the IRS issued Notice 2007-49 (June 11, 2007), clarifying that, despite the change in disclosure requirements, CFO compensation remained exempt from Section 162(m)'s deductibility limits (see Murphy and Jensen (2018) for a summary).

To qualify for the preferential tax treatment under Section 162(m), performance-based compensation had to meet several requirements. First, it needed oversight from a compensation committee including at least two outside directors. Second, the compensation arrangement required explicit shareholder approval. Third, the compensation committee had to certify that predetermined performance goals were achieved before payment. These requirements reflected Congress' dual objectives of constraining the growth of executive pay while encouraging stronger alignment between compensation and firm performance.

Stock options were generally treated as performance-based compensation, provided their exercise price was at or above the market price on the grant date, as were formula-based bonuses tied to objective performance metrics. In contrast, base salaries, time-vested restricted stock, options granted with an exercise price below market value, and discretionary bonuses based on subjective performance metrics did not qualify as performance-based compensation under Section 162(m) of the tax code.

The Tax Cuts and Jobs Act of 2017 marked an important departure from this quarter-century-old framework. Most significantly, the TCJA eliminated the performance-pay exception, subjecting all forms of executive compensation above $1 million to the same tax treatment regardless of their link to performance. This change effectively nullified the tax advantage that had long incentivized firms to structure compensation around performance metrics. The TCJA also substantially expanded the scope of compensation subject to deduction limits. First, it broadened the definition of "covered employees" to

include the CFO alongside the CEO and the three other highest-paid executives. Second, it introduced a novel *"once covered, always covered"* principle: any executive designated as a covered employee after December 31, 2016, permanently retains this status, even after leaving the company or upon death. This provision closed a significant loophole by preventing firms from avoiding deduction limits through deferred compensation arrangements.

While our empirical analysis focuses on the changes to the tax treatment of executive compensation, these were not the only reforms introduced by the TCJA. In fact, the legislation also enacted broader changes to the U.S. corporate tax code, with significant implications for corporate earnings and firm investment behavior. Key changes included: (i) a reduction of the federal corporate income tax rate from 35% to 21%; (ii) the replacement of federal income taxes on dividends from foreign subsidiaries with a transition tax on the deemed repatriation of earnings from those subsidiaries; (iii) the elimination of the domestic production activity deduction and the corporate alternative minimum tax; (iv) a provision for 100% bonus depreciation on qualifying tangible assets; (v) the introduction of the global intangible low-taxed income (GILTI) and base erosion and anti-abuse tax (BEAT) provisions; and (vi) modifications to net operating loss carryforward and carryback rules.

Because these provisions may also affect firm behavior and executive pay through channels unrelated to Section 162(m), we account for them in our empirical design in several ways. First, we compare treatment and control firms using difference-in-differences specifications that isolate the effects of the changes to the deductibility of executive compensation. Second, we include detailed firm characteristic-by-year fixed effects to control for the effects of concurrent tax code changes. Third, we compare changes in CEO compensation with those of top executives who are not affected by the changes to

Section 162(m), using within firm-year variation.

B. Related Research

Research examining how tax deductibility affects executive compensation has evolved through distinct phases, each examining major policy shifts. Early studies following the 1993 implementation of Section 162(m) of the Internal Revenue Code documented firms' initial responses to the performance-pay exception. For example, Balsam and Ryan (1996) found that firms already using performance-based pay were more likely to modify their compensation structures to meet Section 162(m) requirements, while Perry and Zenner (2001) found that bonus and total compensation payouts became increasingly sensitive to stock returns. However, Harris and Livingstone (2002) uncovered an unintended consequence: firms previously paying CEOs less than $1 million actually increased their cash compensation after Section 162(m), suggesting the threshold had become an anchor for "acceptable" compensation levels. Hall and Liebman (2000) and Rose and Wolfram (2002) reached similar conclusions, finding that while Section 162(m) served as a focal point for salary levels, it had no material impact on total compensation. In related work, Balsam, Evans, and Yurko (2019) found that firms increased fixed pay to CFOs after they were exempted from the definition of covered employees under Section 162(m). Finally, there is some evidence that firms subject to Section 162(m) modified their bonus plans by replacing discretionary plans with formulaic, overly generous ones (Murphy and Oyer, 2004).

More recent studies examining the TCJA's elimination of the performance-pay exception focus primarily on short-term firm responses. Specifically, using 2017 and 2018 compensation data and an identification strategy that exploits whether a firm's fiscal year-end falls just before or just after the TCJA's effective date, De Simone, McClure,

and Stomberg (2022) find no meaningful changes in total compensation, pay mix, or pay-performance sensitivity in the immediate post-TCJA period. Similarly, Luna, Schuchard, and Stanley (2023), focusing mainly on time-series evidence, document a short-term increase in CEO salaries but no change in total compensation.[4]

Our analysis differs from these prior studies in several fundamental ways. First, our longer sample period, extending through 2021, allows us to identify adjustment patterns that were not apparent in the immediate aftermath of the TCJA and to mitigate concerns related to anticipatory effects surrounding the law's discussion and enactment in 2017. Looking over a longer horizon also helps address a potential issue stemming from the TCJA's *grandfather clause*, which allowed the deductibility of performance-based compensation to be retained if it was part of a written binding contract in effect prior to November 2, 2017. Second, we focus specifically on firms with high pre-TCJA performance-based pay and compare CEOs to non-top-five executives within the same firm-year, allowing us to better control for other provisions of the TCJA that could have affected firms on multiple dimensions. Finally, by documenting increased CEO turnover following compensation adjustments among higher-ability CEOs, we show that expanding limits on compensation deductibility can have significant labor market consequences.

III. Theoretical Framework

Before delving into the empirical analysis, we develop a simple theoretical framework with moral hazard to motivate our empirical tests. Specifically, the model incorporates

[4] Andreani, Ellahie, and Shivakumar (2025) also study the effect of the TCJA on CEO compensation, but unlike us, they do not focus on changes in the deductibility of performance pay. Instead, they examine whether CEOs are rewarded for luck by analyzing one-off tax gains and losses related to the valuation of deferred tax assets and liabilities. Our results are complementary to theirs and remain robust when controlling for these one-off tax effects. Furthermore, our triple-differences specifications include firm-by-year fixed effects, which effectively control for any firm-level shocks, including one-off tax gains and losses.

the tax deductibility of performance-based CEO pay and derives predictions for key variables of interest, such as CEO performance-based pay, non-performance-based pay, and total compensation, once the tax deductibility of pay is eliminated. We consider two scenarios: (1) the firm has only a single candidate for the CEO role; and (2) the firm can choose among CEO candidates with varying abilities. The single-candidate case delivers baseline predictions for CEO pay, while the richer, multiple-candidate case generates additional implications for firm-CEO matching and CEO turnover, and examines how compensation adjustments relate to turnover.

A. Single CEO Type

We first consider the case in which the firm has only one candidate for the CEO position, who is hired both before and after the elimination of the tax deductibility for performance-based pay. This setup allows us to derive baseline predictions for the level and structure of CEO compensation but does not permit analysis of turnover, since the CEO's participation constraint is always exactly met.

Suppose a risk-neutral principal (he) hires a risk-averse manager or CEO (she) to run the firm. The CEO is risk-averse and has exponential utility, $U(s) = -e^{-\rho(s-c(e))}$, where s represents compensation, e is effort, and $c(e) = \frac{ce^2}{2}$ is the cost of effort. The CEO's outside opportunities guarantee her a fixed income of $\overline{W}$ with no effort. We assume that effort is unobservable and affects firm value V as follows:

$$V = ke + \varepsilon, \tag{1}$$

where ε is a random, normally distributed variable with zero mean and variance σ^2.

Following the contracting literature, we model the linear compensation contract:

$$s = w + bV, \tag{2}$$

where w is the fixed wage, and bV represents the amount of performance-based pay.

The principal maximizes firm value net of the after-tax expected compensation costs, subject to the incentive-compatibility and individual-rationality constraints for the CEO:

$$\max_{e,w,b} E\left[V - s + \tau bV\right], \tag{3}$$

$$e^* = \arg\max E\left[-e^{-\rho(s-c(e))}\right], \tag{4}$$

$$E\left[-e^{-\rho(s-c(e))}\right] \geq -e^{-\rho\overline{W}}, \tag{5}$$

where the last term in (3) represents the tax benefit associated with the CEO's performance-based pay that was present prior to the enactment of the TCJA but not afterwards, and τ is the firm's marginal corporate tax rate.[5]

The individual-rationality constraint for the CEO is binding, allowing us to solve for the fixed wage w

$$w = \overline{W} - bke + \frac{ce^2}{2} + \frac{\rho b^2\sigma^2}{2}. \tag{6}$$

The CEO maximizes the certainty-equivalent of her compensation net of the cost of effort:

$$\max_{e} w + bke - \frac{\rho b^2\sigma^2}{2} - \frac{ce^2}{2}, \tag{7}$$

which yields the simple expression for the optimal effort

$$e^* = \frac{bk}{c}. \tag{8}$$

[5]For simplicity, we do not model the allowed deduction of $1 million in compensation, though our conclusions would remain qualitatively similar if we did. We also abstract from individual income taxation, as it changed only minimally under the TCJA (the top marginal income tax rate decreased from 39% to 37%).

Substituting compensation contract form (6) and optimal effort (8) into the objective function (3), simplifies the principal's problem to

$$\max_{b} \frac{bk^2}{c} + \frac{b^2\tau k^2}{c} - \frac{b^2k^2}{2c} - \frac{b^2\rho\sigma^2}{2} - \overline{W}. \tag{9}$$

The solution of this optimization problem results in the following optimal compensation of the CEO and firm value:

$$b^* = \frac{k^2}{c\rho\sigma^2 + k^2(1-2\tau)}, \tag{10}$$

$$w^* = \overline{W} + \frac{k^4(c\rho\sigma^2 - k^2)}{2c\left(c\rho\sigma^2 + k^2(1-2\tau)\right)^2}, \tag{11}$$

$$P \equiv E[V - s + \tau bV] = \frac{k^4}{2c\left(c\rho\sigma^2 + k^2(1-2\tau)\right)} - \overline{W}. \tag{12}$$

After the enactment of the TCJA, the tax deductibility of performance-based pay is eliminated, yielding the same solution as in equations (10)–(12), but with $\tau = 0$. The following proposition summarizes the resulting changes in CEO compensation mix and level and firm value.

Proposition 1. *(**No CEO Selection**): When the tax deductibility of performance-based pay is eliminated: (i) the amount of performance-based pay, $b^*E[V]$, and its fraction in total compensation, $b^*E[V]/E[s]$ decreases; (ii) expected total compensation, $E[s]$, decreases; (iii) firm value, P, decreases; and (iv) there is an ambiguous effect on the fixed wage, w^*. If $c\rho\sigma^2 \geq k^2$, then the wage weakly decreases; otherwise, it increases.*

The intuition behind Proposition 1 is straightforward. When the tax deductibility of performance-based pay is eliminated, the firm has less incentive to use performance-based pay, since it is no longer tax-advantaged. Reducing this variable form of pay also lowers the required risk premium, resulting in lower total CEO compensation. The effect on the fixed wage, however, is ambiguous: when the CEO is highly risk-averse or the firm's

performance is highly volatile (i.e., when $c\rho\sigma^2$ is large relative to k^2), the reduction in the risk premium dominates, and the firm decreases the fixed wage, otherwise it increases it. Finally, the loss of valuable tax deductions reduces firm value.

B. Multiple CEO Types

So far, we have assumed that the firm considers only one candidate for the CEO position. However, in practice, a firm may have access to a pool of potential candidates who vary in ability and possess different outside options. From our perspective, the key question is whether the tax deductibility of performance-based pay influences the type of CEO the firm selects and the corresponding compensation contract it offers.

To address this question, we modify the framework by allowing CEOs to have different abilities, represented by k_i, and different outside options, $\overline{W}_i$, where $i \in \{H, L\}$, $k_H > k_L$, and $\overline{W}_H > \overline{W}_L$. In general, when performance-based pay is no longer tax-deductible, the firm either employs the same type of the CEO as before, or switches from a more expensive (high-ability) type to a cheaper (low-ability) type. Hence, where there is no CEO turnover following the repeal of tax deductibility for performance-based compensation, the contract offered to the CEO is summarized in (10)-(11) and results of Proposition 1 apply.

Below, we consider the case with CEO turnover, which occurs when the firm's value under a tax advantage for performance-based pay (see equation (12)) is higher with a high-ability CEO than with a low-ability one, i.e., $P_{H,\tau} > P_{L,\tau}$, but this relation reverses in the absence of the tax advantage of performance-based pay, such that, i.e., $P_{H,0} < P_{L,0}$.

Proposition 2. *(CEO Selection): Suppose $P_{H,\tau} > P_{L,\tau}$ and $P_{H,0} < P_{L,0}$. When the tax deductibility of performance-based pay is eliminated: (i) the amount of performance-based pay decreases, $b^*_{L,0}E[V_{L,0}] < b^*_{H,\tau}E[V_{H,\tau}]$; (ii) expected total compensation decreases,*

$E[s_{L,0}] < E[s_{H,\tau}]$; and (iii) there is CEO turnover, with H-type CEOs leaving and L-type CEOs joining.

Intuitively, the tax deductibility of performance-based pay allows firms to offer higher CEO compensation and, as a result, to potentially employ higher-ability CEOs. Without it, these firms can no longer afford such CEOs and instead switch to cheaper alternatives. Interestingly, when there is CEO turnover, the reduction in total CEO compensation tends to be larger compared to cases without turnover. This occurs because, when a firm switches to a lower-ability CEO, there is less incentive to provide costly performance-based pay due to the CEO's lower productivity, and the CEO's outside options are also less lucrative.

IV. Data and Empirical Design

A. Sample Construction

We obtain detailed CEO compensation data, including performance-based pay, from the IncentiveLab database, which covers public U.S. companies with a market capitalization over $1 billion, large international firms, and all U.S. companies that have appeared on the Fortune 750 list since 2004. Since IncentiveLab backfills and forward-fills its data, our initial sample includes 3,260 unique U.S. firms. In additional tests, we also use compensation data on 203 international firms. We define performance-based pay as all compensation linked to a performance goal, as reported in IncentiveLab.[6] Stock return data are from CRSP, corporate accounting data are from Compustat, and CEO

[6]One advantage of using IncentiveLab data, as we do here, is that it explicitly tracks performance-based pay, which largely aligns with the definition of qualified performance-based compensation under Section 162(m). In contrast, studies that rely on ExecuComp data must make assumptions about how to classify stock option plans–some of which do not qualify under Section 162(m)–as well as restricted stock grants and various types of bonuses.

characteristics are from BoardEx database. Detailed variable definitions are provided in Appendix B.

Our sample period spans three years before and three years after the enactment of the Tax Cuts and Jobs Act of 2017, which became effective for firms with fiscal years beginning on or after January 1, 2018. Table IA.1 of the Internet Appendix lists key legislative events related to the passage of the TCJA. It shows that the bill had been actively discussed since at least September 27, 2017, was introduced in Congress on November 2, 2017 (disclosing for the first time the proposed cap on the deductibility of performance-based executive pay) and was subsequently passed by the House and Senate, reconciled, and signed into law on December 22, 2017. To mitigate anticipatory effects in our research design, we therefore exclude the three-month period prior to the TCJA's effective date.[7] As a result, our sample includes firm-year observations with fiscal year ends from September 30, 2015, through November 30, 2021, excluding the period with fiscal year ends from September 30, 2018, to November 30, 2018.

Panel A of Table 1 reports summary statistics for the main variables in our sample. On average, firms in our sample report total assets of approximately $11.7 billion, a return on assets (ROA) of –2.6%, and leverage of 28.0%. More than 28% of firms report net operating losses in a given year and in 10.3% of firm-years, there is CEO turnover. The mean (median) CEO compensation is $7.0 million ($5.0 million) in the sample, with 41.4% of CEO pay classified as performance-based.

B. Empirical Methodology

To investigate the impact of the TCJA's repeal of exceptions to Section 162(m) on CEO compensation, we conduct difference-in-differences (DiD) and triple-differences analyses

[7]However, our results are fully robust to including this three-month period and treating it as part of the pre-TCJA period.

around the passage of the tax reform. Our DiD estimation builds on the idea that firms with larger dollar amounts of performance-based pay stood to lose more in tax deductions upon the TCJA's enactment and therefore had greater incentive to adjust their pay structures. Treated firms are identified as those with above-median performance-based pay in the period prior to the TCJA. Specifically, we calculate the average CEO performance-based pay during the three year period prior to the TCJA's passage and classify firm-CEO pairs with above-median performance-based pay as treated. Firm-CEO pairs with below-median performance-based pay serve as the effective control group. Because the tax reform applies to the dollar amount of compensation, we use dollar values (rather than percentages of pay) to identify the treated group and estimate the model using Poisson regressions.[8] In the Internet Appendix, we show that our results are also robust to using OLS regressions, where the dependent variables are the logs of the dollar values of compensation, using only the positive values.

We carry out a DiD analysis for a sample of treated and control firms using the following specification:

$$Y_{ijt} = \mu_{ij} + \delta_t + \beta \cdot Treated_{ij} \times Post_{it} + Z'_{ijt-1}\Gamma + \varepsilon_{ijt}, \tag{13}$$

where the indices i, j, and t refer to firms, CEOs, and years, respectively, and the unit of analysis is firm-CEO-year. Y_{ijt} is the dependent variable of interest (i.e., total compensation, performance pay, non-performance pay), for CEO j in firm i in year t. In some specifications, the dependent variable is the relative share of performance pay in total compensation, in which case we estimate the model using the OLS regressions.

[8]Performance-based pay is highly skewed in the data, with some firms not offering any as part of their executive compensation. Cohn, Liu, and Wardlaw (2022) and Chen and Roth (2024) recommend that researchers rely primarily on Poisson regressions when analyzing variables that are inherently non-negative and exhibit skewed distributions. They show that Poisson regressions produce unbiased and consistent estimates under standard conditions and accommodate separable fixed effects.

$Treated_{ij}$ is an indicator variable that takes value equal to one for firm-CEO pairs with above-median pre-TCJA performance-based pay (treatment group), and zero otherwise (control group). $Post_{it}$ is an indicator variable equal to one for firms with fiscal years starting on or after January 1, 2018, and zero in all other years in the sample. As noted above, we exclude the three-month period prior to the TCJA's effective date, during which the legislation was actively discussed and voted on in the House and Senate.

Since the TCJA could have directly affected firm characteristics, our preferred specification excludes control variables (see, e.g., Baker, Larcker, and Wang (2022)). However, because CEO compensation is strongly tied to firm performance and size (Jensen and Murphy, 1990, Baker and Hall, 2004, Tervio, 2008, Gabaix and Landier, 2008) and because firms with net operating losses, deferred tax assets and liabilities, and high leverage could be differentially affected by the tax reform (Andreani, Ellahie, and Shivakumar, 2025), in some specifications we also include a set of control variables, X_{it-1}, which consists of firm size (log of assets), firm performance measures (ROA and stock returns), leverage (debt-to-assets), an indicator for net operating losses, and net deferred tax liabilities normalized by assets. To address a potential concern that there is matching between firms who tend to have higher levels of performance pay and CEO type that might be driving our results, we include firm-CEO fixed effects, μ_{ij}. In this way, our main source of variation comes from tracking the same CEO-firm pair over time. In addition, the inclusion of firm-CEO fixed effects controls for time-invariant unobservable characteristics of the CEO, such as talent or risk preferences, that have been shown to explain a large part of the variation in CEO compensation (Graham, Li, and Qiu, 2012).

One potential concern with the difference-in-differences specification (13) is that the TCJA was a comprehensive piece of legislation that likely affected firms not only through the repeal of the tax deduction for executive performance-based pay but also through

other provisions of the tax law. To the extent that these other effects are correlated with the $Treated_{ij}$ variable, our estimates could be affected. Specifically, the TCJA lowered the statutory corporate income tax rate from 35% to 21%, which could have a larger positive effect on more profitable firms; limited interest deductions on debt, potentially affecting highly leveraged firms more negatively; eliminated net operating loss (NOL) carrybacks and limited NOL carryforwards, with a greater negative impact on firms with significant NOLs; and required firms to revalue their deferred tax assets and liabilities, with larger positive effects for firms with greater net deferred tax liabilities.

To address this concern, we use a more stringent triple-differences estimation strategy, relying on the fact that executives ranked below the top five in total compensation were unaffected by the repeal of the tax deduction. These executives were never subject to compensation deductibility limits under Section 162(m) and thus serve as a valid control group within the same firm. Specifically, we estimate the following triple-differences specification:

$$Y_{ijt} = \mu_{ij} + \gamma_{it} + \delta_{jt} + \beta \cdot Treated_{ij} \times CEO_{ijt} \times Post_{it} + Z'_{ijt-1}\Gamma + \varepsilon_{ijt}, \qquad (14)$$

where the indices i, j, and t now refer to firms, executives, and years, respectively. The unit of analysis is the firm-executive-year, and the sample includes CEOs and executives ranked below the top five in total compensation.[9] The variable CEO_{ijt} is equal to one if executive j is a CEO of firm i in year t. $Post_{it}$ and $Treated_{ij}$ are defined in the same way as before. We include the following fixed effects in the specification: *Firm*×*Year*, *Year*×*CEO*, and *CEO*×*Treated*. Specifically, *Firm*×*Year* fixed effects absorb all het-

[9]Because of the "once covered, always covered" principle, some executives below the top five in a given year may still be subject to compensation deductibility limits if they were ranked in the top five in a prior year. Such cases are rare, and while we exclude these executives from the control group, including them does not affect the results.

erogeneity at the firm-year level, removing the effect of any factors that uniformly affect the compensation of CEOs and non-top five executives of the same firm, including other provisions of the tax reform that are not compensation-related. These fixed effects in particular control for any effect of the tax law on the firm through other provisions, that are not executive-specific, thus allowing us to use within-firm variation. *CEO*×*Treated* fixed effects absorb time-invariant heterogeneity in the differential pay between the CEOs of treated and control firms. Finally, *Year*×*CEO* fixed effects account for differential time trends in the pay of CEOs relative to other executives.[10]

V. Impact of TCJA on Executive Compensation

A. Difference-in-Differences Estimates

Figure 1 illustrates the evolution of performance-based pay for CEOs around the TCJA during our sample period of three years before and after the reform. The figure highlights two key patterns. First, the performance-based pay of treated firms is statistically indistinguishable from that of control firms before the tax reform, supporting the parallel trends assumption necessary for our identification strategy. Second, treated firms exhibit a marked decrease in performance-based pay relative to control firms after the TCJA becomes effective, suggesting they adjusted their compensation structures once the tax advantage was eliminated.

Figure 2 extends the analysis by comparing changes in performance-based pay for CEOs relative to other highly paid executives within the same firm who were unaffected by the limit on the deductibility of executive pay, using a triple-differences specification. The figure shows that the decline in performance-based pay is concentrated among CEOs

[10]In additional tests, we include *Year*×*CEO*×*Industry* fixed effects to further control for peer effects in executive pay and macroeconomic conditions that vary across industries and over time.

rather than among unaffected top executives, though the error bars are generally wider than in the difference-in-differences setting, reflecting lower statistical power in this more granular comparison.

Our formal analysis begins with the estimation of the difference-in-differences specification outlined in equation (13), with results presented in Table 2. Columns 1–2 examine changes in CEO performance-based pay (defined as all compensation linked to a performance goal) following the TCJA. The coefficient on $Treated \times Post$ is negative and significant at the 1% level, indicating that performance-based pay for treated firms decreases by 42% (calculated as $e^{-0.545} - 1$) relative to control firms after the tax reform. The magnitude of the effect is only slightly reduced (to 38%) when control variables are included. In terms of the fraction of total CEO pay that is performance-based, we also observe a decline of 3.7 to 4.2 percentage points. These results are consistent with the prediction of the model that firms reduce their reliance on performance-based pay once its tax deductibility is eliminated.

We next examine changes in non-performance-based CEO pay (defined as all compensation not linked to a performance goal). In this case, the model predicts that the effect of the tax reform is ambiguous. As shown in Columns 3 and 4, we find a negative but smaller effect: specifically, the dollar amount of non-performance-based pay decreases by 8–15%.

Finally, in the last two specifications, we focus on total CEO compensation, for which the model predicts a decline following the TCJA. Consistent with this prediction, we find that total CEO pay decreases by approximately 17–23% after the passage of the tax reform. It is worth clarifying that the documented declines in total CEO compensation, as well as in performance-based pay, are measured relative to control firms, since the overall sample period is characterized by an upward trend in CEO pay.

To illustrate this point, Table IA.2 of the Internet Appendix presents the results without the inclusion of year fixed effects, allowing for a separate estimation of the variable *Post*. The table shows that total CEO compensation is approximately 32–46% higher in the post-period for control firms, but only 15–24% higher for treated firms.

A possible alternative explanation for the observed effect of the TCJA on performance-based pay is that the passage of the tax reform signaled a change in the broader business environment and investment opportunities, potentially affecting companies' operations differently across industries. Furthermore, as noted by Albuquerque, De Franco, and Verdi (2013), Bizjak, Lemmon, and Naveen (2008), and Jayaraman, Milbourn, Peters, and Seo (2021), boards tend to structure CEO compensation contracts based on peer CEO (or firm) pay, with peers often being selected from the same industry. To address these concerns, we re-estimate our baseline regressions with the inclusion of CEO-industry-year fixed effects. These fixed effects help control for peer effects and also implicitly account for macroeconomic conditions that vary across industries and over time. The results reported in Table IA.3 of the Internet Appendix are very similar to those presented in Table 2.

One of the primary concerns for our identification strategy is that the TCJA may have affected firms through other channels, which could, in turn, have influenced the level and structure of executive compensation. For example, the reduction in the statutory tax rate from 35% to 21% and the expensing of qualified capital investments may have encouraged firms to increase investment (see, e.g., Zwick and Mahon (2017) and Chodorow-Reich, Smith, Zidar, and Zwick (2024) on the effects of taxes on investment), and changes in investment intensity could subsequently affect the demand for executive incentives.[11] These effects may be more pronounced for more profitable firms that were subject to

[11] To the extent that firms increased investment following the lower corporate tax rates introduced by the TCJA, we would expect them to use more (rather than less) CEO performance-based pay.

the top marginal tax rates prior to the TCJA. Similarly, because the TCJA capped net interest deductions at 30% of EBITDA and changed the rules for carrybacks and carryforwards of net operating losses, it could have affected highly levered firms and firms with NOLs differently.

To account for the potential differential effects of the tax reform across firms, we include several additional fixed effects. Specifically, for each continuous firm characteristic (i.e., firm size, ROA, stock return, leverage, and net deferred tax liabilities), we create quartiles based on values in the year prior to the enactment of the tax reform and include year-by-quartile fixed effects for each characteristic in our regressions.[12] Similarly, for net operating losses indicator, we include year-by-NOL indicator fixed effects.

Table 3 reports these results. Overall, we find that the estimated effects remain similar in magnitude when these additional fixed effects are included, which helps mitigate concerns that differential firm responses to other provisions of the law are driving the observed effects on CEO pay.[13]

B. Triple-Differences Estimates

To further strengthen our identification, we exploit the fact that the TCJA provision limiting the tax deductibility of performance-based pay applied only to the five highest-paid executives (the CEO, the CFO, and the three other most highly compensated officers), whereas other provisions of the tax reform, such as the reduction in the statutory tax rate and the limitation on interest deductibility, applied more broadly at the firm level. We therefore examine how CEO pay changed following the TCJA relative to that

[12] In Table IA.4 of the Internet Appendix, we also show that our results are robust for directly controlling for the effect of one-off tax gains and losses related to the valuation of deferred tax assets and liabilities following Andreani, Ellahie, and Shivakumar (2025).

[13] In Table IA.5 of the Internet Appendix, we also report results of propensity score matching, where we match firms on size (total assets).

of executives ranked below top five in the same firm-year. As mentioned earlier, in these triple-differences specifications, we include *Firm*×*Year*, *Year*×*CEO*, and *Treated*×*CEO* fixed effects. As a result, all stand-alone effects, two-way interaction terms, and control variables that vary at the firm-year level are absorbed by fixed effects, leaving only the triple-differences estimate identified.

The results are reported in Table 4 and are consistent with those presented earlier, with the exception of the effect of the TCJA on non-performance-based pay, which is no longer statistically significant and for which the model does not offer a clear prediction. In terms of economic magnitude, CEO performance-based pay decreases by 32.6% relative to that of unaffected executives in the same firm, the share of performance-based pay in total compensation drops by 5.9%, and total pay decreases by 14.5%. These results help address concerns applicable to prior studies, such as De Simone, McClure, and Stomberg (2022) and Luna, Schuchard, and Stanley (2023), that the tax reform may have affected firms not only through the performance-based pay provision but also through other provisions, and that changes in pay could be driven by those broader effects. To the extent that CEO and other executive pay respond similarly to tax-driven firm-level changes, our results are not subject to the same criticism.

In addition, in the Internet Appendix, we also use an alternative identification strategy that leverages the fact that the TCJA applied only to U.S.-incorporated public firms, but not to firms incorporated in other countries. For these tests, we use compensation data on international firms from IncentiveLab. Because international firms in IncentiveLab are generally different from U.S. firms (in particular, they tend to be smaller), we apply propensity score matching based on firm size (total assets) and compare trends in CEO pay between the matched international and U.S. firms. The results, reported in Table IA.6, show a similar pattern: both the performance-based pay of U.S. CEOs

and the share of performance-based pay in total compensation decrease relative to their international counterparts and there is no significant effect on non-performance-based compensation.

C. Changes in Performance Metrics

Firm modifications to the types of performance-based pay used after the TCJA can shed light on which forms were primarily designed to take advantage of Section 162(m) tax deductions and which may have been employed for other reasons, such as aligning executives' interests with those of shareholders. To better understand these changes, here we examine which metric groups experienced significant adjustments following the TCJA. The results are presented in Table 5, with Panel A reporting difference-in-differences estimates and Panel B showing triple-differences results. All specifications are estimated using Poisson regressions, and the dependent variable in each specification is the dollar amount of pay linked to a specific metric group.

We focus on four metric groups: short-term, long-term, accounting-based, and stock price-based performance pay. Short-term pay is tied to goals with a horizon of 12 months or less, while long-term pay is linked to goals that vest over a period longer than 12 months. Accounting-based goals refer to compensation tied to accounting outcomes (e.g., ROA exceeding 5%), while stock price-based pay involves goals linked to market performance metrics (e.g., total stock return greater than 10%). The metric groups are not mutually exclusive. For example, pay could be linked to a short-term goal and an accounting-based goal at the same time.

Relative to the control group, treated-firm CEOs experience smaller declines in short-term (Column 1) and accounting-based (Column 3) performance pay, and larger declines in long-term (Column 2) and stock price-based (Column 4) performance pay. The differ-

ences in coefficients between short-term and long-term, and between accounting-based and stock price-based pay, are statistically significant in the DiD specification at the 1% level, and have p-values of 0.11 and 0.13, respectively, in the DDD specification.

Overall, these results are noteworthy given that Section 162(m) was often criticized for encouraging firms to adopt short-term, accounting-based, overly formulaic plans. Furthermore, it has been argued, from a theoretical perspective, that tying executive pay to short-term performance goals is more likely to induce manipulation of performance metrics (see, e.g., Edmans, Gabaix, and Jenter (2017)). If anything, however, we find that firms are more likely to reduce their reliance on long-term and stock-based compensation. One potential reason why these categories may be targeted first by firm is that, given their longer-term nature, the after-tax cost of these components may increase more relative to other types of performance-based pay and may also be more uncertain and skewed to the right.

VI. Labor Market Effects

A. CEO Turnover Following TCJA

We next examine whether the elimination of the tax deductibility of performance-based executive pay affects not only the level and structure of compensation but also the broader executive labor market. While prior research has focused on how firms adjust pay in response to tax changes, we demonstrate that expanding restrictions on the deductibility of executive compensation can have important implications for executive retention and quality. Specifically, the model shows that some firms may prefer to replace higher-ability CEOs with lower-ability ones because they can no longer afford to retain the former. In essence, tax deductions for executive compensation implicitly enabled

firms to pay more; once these deductions are removed, firms must grapple with how to retain executives who have become more expensive on an after-tax basis.

To test this implication empirically, we turn to CEO turnover outcomes. Table 6 presents the results of the CEO turnover analysis, where the dependent variable equals one if there is CEO turnover in a given year and zero otherwise.[14] In columns 1 and 2, we interact $Treated \times Post$ with an indicator for *High Stock Return* during the three-year period prior to the passage of the TCJA. The idea is that higher-ability CEOs are more likely to generate superior firm performance, so stock returns serve as a useful proxy for unobserved managerial ability. Similarly, in columns 3 and 4, we use *High ROA* during the three-year period prior to the TCJA as an alternative proxy for managerial ability.

Consistent with the broader literature on CEO turnover, we find that firm performance, measured by either stock returns or the firm's ROA, is negatively related to the probability of turnover. CEO turnover also increases with firm size, potentially because larger firms are more likely to search for better-matched CEOs. Regarding the impact of the TCJA, column 1 shows a negative estimate on $Treated \times Post$, implying that, post-TCJA, CEO turnover decreases by 3.5% for treated firms with lower-ability CEOs. The key finding, however, is that CEO turnover increases for treated firms with higher-ability CEOs. Specifically, treated firms with high stock returns experience a 2.5% ($= 6.0\% - 3.5\%$) higher likelihood of CEO turnover relative to control firms post-TCJA. We generally find similar but statistically weaker results when we use high ROA to proxy for managerial ability.

In columns 5 and 6 we examine the relation between the probability of CEO turnover and the costs/benefits of their outside opportunities. Existing literature suggests that

[14] We focus on total CEO turnover for two main reasons. First, the model does not explicitly distinguish between forced and voluntary turnover. Second, data on forced CEO turnover is not available for our sample period from standard sources, such as Peters and Wagner (2014).

non-compete agreements (NCAs) shape the behavior of executives by raising their personal cost of displacement. For example, Garmaise (2011) shows that NCAs reduce the likelihood of top executives switching jobs, primarily by decreasing the number of transitions to similar positions within the same industry. He also finds that stronger enforceability of NCAs is linked to lower overall executive compensation. Ertimur, Rawson, Rogers, and Zechman (2018) find that non-compete constraints lead to employment gaps more often for specialist CEOs than for generalist CEOs. Using data on the state-level changes in the enforceability of CEO non-compete agreements from Bai, Eldemire, and Serfling (2024), we find that the increase in CEO turnover is concentrated in states with weaker enforceability of non-compete agreements, where it is easier for CEOs to move.

The results in Table 6, showing that turnover increases among higher-ability CEOs, are consistent with the predictions of the model (see Proposition 2). Intuitively, the removal of tax deductions for performance-based pay increases the after-tax cost of hiring a CEO, making it unaffordable for some firms to retain the CEOs they employed prior to the TCJA and prompting a switch to less expensive alternatives.

The labor market consequences we document reveal a more balanced view of tax-motivated compensation distortions. While firms benefited from tax advantages under Section 162(m), they created employment arrangements that proved unstable once TCJA eliminated these benefits. This suggests that tax policies can have unintended consequences that extend far beyond their direct effects on compensation structure. Rather than simply influencing pay levels or components, tax incentives can distort the matching between executives and firms, creating employment matches that depend on tax benefits for their stability.

B. Do New CEOs Receive Lower Pay?

The differential impact of the TCJA on CEO turnover across skill levels suggests that tax-motivated compensation arrangements created distortions in the CEO labor market and affected firm-CEO matching, with some firms letting go of higher-ability CEOs. Here, we test a related prediction that emerges from the model, namely, that firms replaced departing higher-ability CEOs with less expensive successors. Specifically, we examine whether the decreases in CEO performance-based pay and total compensation are more pronounced following the TCJA in cases where CEO turnover occurs during the post-reform period.

Table 7 presents these results. Consistent with earlier findings, we observe that both performance-based pay and total CEO compensation decrease following the TCJA. However, we also find an additional effect on compensation when there is CEO turnover. For example, based on specification (1), firms reduce CEO performance-based pay by 42.1% ($= e^{-0.547} - 1$) post-TCJA, with an additional 12.9% ($= e^{-0.138} - 1$) reduction when turnover occurs. Similarly, the base effect of the tax reform on total CEO compensation is –24.0%, with an additional decline of 13.1% associated with CEO turnover.

These findings significantly advance our understanding of how tax policy can affect executive compensation. While previous research has focused primarily on average effects across firms, our analysis reveals that compensation adjustments following the repeal of tax deductibility of executive pay were substantially more pronounced in cases involving CEO turnover. In the context of the model, these results suggest that, following the elimination of tax deductions, some firms could no longer afford to retain higher-ability CEOs and instead switched to less expensive counterparts. In turn, incentivizing lower-ability CEOs became less important for firm value generation, so that firms reduced their reliance on performance-based pay.

These results highlight how tax policy can interact with executive labor markets in subtle but important ways. This insight has important implications for policy design, suggesting that attempts to influence compensation structure through tax incentives may also create unintended distortions in the executive labor market.

VII. Stock Market Reaction

In addition to the effects of the TCJA on CEO pay and turnover, the model also predicts that the loss of tax deductibility of performance-based executive compensation has negative implications for firm value, provided that other effects of the tax reform, such as lowering of the statutory tax rates, are accounted for.

To investigate the firm value implications of the loss of tax deductibility for performance-based pay, we calculate abnormal stock returns on the date the TCJA bill was first introduced in Congress (November 2, 2017). We focus specifically on this date because it marked the first time that changes to the deductibility of performance-based pay were explicitly discussed and made public. For example, the tax bill proposal disclosed in the news on September 27, 2017, did not mention executive compensation.[15] Focusing on November 2, 2017, also has the added benefit that investors' assessments of other provisions in the tax bill on firms had, at least partially, already been incorporated into stock prices.

For our tests, we use CEO performance-based pay in the year prior to the TCJA's passage as a continuous variable and also calculate the performance-based pay rank using deciles (from 1 to 10), with higher rank indicating higher performance-based pay. We calculate the abnormal return using the Fama-French-Carhart four-factor model. We

[15]See, e.g., "Details of GOP tax reform framework revealed," published on September 27, 2017, by CNNMoney. Moreover, votes on the bill in the House and Senate were largely anticipated, given Republican majorities in both chambers.

then regress abnormal returns on performance pay variables, as well as base set of firm level control variables (also measured in the year before the TCJA enactment).

The results are presented in Table 8. We find a negative and statistically significant relation between CEO performance-based pay (or its rank) and abnormal returns to the news about the TCJA and the elimination of the tax deductibility for executive performance-based pay. For example, based on columns 1 and 2, the results suggest that a one standard deviation increase in CEO performance-based pay is associated with a 16 to 26 bps lower abnormal return in response to the TCJA announcement. Likewise, the effect of a one-decile increase in performance-based pay corresponds to a 7 to 11 bps reduction in the cumulative abnormal return (CAR). In terms of market capitalization, the median firm in our sample was worth $10.5 billion in the year prior to the TCJA. A 16 basis point decrease in firm value, as shown in Column 2, corresponds to a $17 million decline in market capitalization.[16]

These results indicate that the stock market understood the value of the tax deductibility and realized firm values would be lower as a result of its loss. Firms with more performance-based pay would be more (negatively) affected than those firms with lower or no performance-based pay.

VIII. Robustness Tests

A. Propensity Score Matching

One potential criticism of our empirical setting is that treated and control firms may differ in terms of firm size, and that firms of different sizes may exhibit different trends

[16]We estimate that, for the average firm in our sample, the elimination of the tax deduction for executive performance-based pay results in approximately $1.5 million in additional corporate income tax per year. Using a discount rate of 8% and a 30-year horizon, this implies a present value loss of roughly $17 million–comparable to the observed market reaction.

in CEO pay. While our baseline specifications include firm fixed effects (and Table 3 additionally includes firm size-by-year fixed effects), we further address this concern in Table IA.5 of the Internet Appendix, where we replicate our main tests after matching treated and control firms on industry (two-digit SIC code) and firm size (total assets). The matching is performed in the year prior to the TCJA's enactment, and firms are not different in terms of size after the match.

Table IA.5 presents the replication of our main analysis. In our baseline results (Table 2, Columns 1 and 7), the coefficient on *Post*×*Treated* is –0.545 for performance-based pay and –0.256 for total CEO compensation. In the PSM-matched samples (Table IA.5, Columns 1 and 7), the corresponding coefficients are similar in magnitude (–0.630 and –0.188, respectively). This indicates that, when matching on firm size, firms with high levels of performance-based pay significantly reduce such pay and total pay following the elimination of the tax deduction previously allowed under Section 162(m).

B. Excluding the Covid Period

Another potential concern is that the post-period in our study includes an unusual time period potentially affected by the onset of the COVID-19 pandemic. During this period, CEO compensation may have been cut for reasons unrelated to the TCJA. Of course, our tests compare treated and control firms in the DiD specifications, and additionally, CEOs to unaffected executives within the same firm in the DDD specifications. For the pandemic to explain our results, it would therefore have to be the case that treated firms experienced different trends in executive pay during the pandemic and that these trends also differed between CEOs and other executives within the same firm.

Nevertheless, to further allay this concern, we exclude the year 2020 from the post-period and reestimate the results. Table IA.7 presents these findings. In general, we

observe coefficient estimates in Panel A of Table IA.6 that are similar to those in our main tests reported in Table 2. For example, in column 1 of Panel A, the coefficient on *Treated*×*Post* is –0.561, compared to –0.545 in the corresponding specification in Table 2. The triple-difference results in Panel B of Table IA.7 are also similar, with slightly smaller magnitudes than those reported in Table 4.

C. Alternative Log-Specifications

Finally, in Table IA.8, we show that our results are robust to using OLS regressions instead of the Poisson model. In these regressions, the dependent variables are the logs of the dollar values of CEO performance-based compensation, non-performance-based pay, and total compensation, respectively, and are defined only for observations with positive compensation values.[17]

IX. Conclusion

Our study shows that tax policy can significantly and persistently affect the design of executive compensation and create distortions in the executive labor market. Motivated by a simple theoretical framework that examines how tax deductibility of performance-based pay influences CEO selection and compensation design, we analyze firms' responses to the Tax Cuts and Jobs Act of 2017, which eliminated the tax advantage of performance-based pay over fixed pay and expanded the scope of the $1 million deductibility limit. We document a pattern of compensation adjustments suggesting that many firms had maintained high levels of performance-based pay primarily to capture tax benefits, with treated firms exhibiting a 38% smaller increase in performance-based pay following the

[17]Total compensation is positive for all firm-CEO-year observations in the sample, while performance-based compensation equals zero in approximately 6% of cases.

TCJA. The targeted nature of these adjustments—occurring in performance-based components without corresponding changes to fixed compensation—strongly suggests that firms were unwinding previously tax-driven compensation arrangements.

The unwinding of these tax-motivated pay structures also triggered significant disruptions in the executive labor market. Consistent with the model, we find that the loss of compensation deductibility prompts treated firms to offer lower CEO compensation. As a result, CEO turnover increases among treated firms with higher-ability CEOs (proxied by higher stock returns). Specifically, treated firms with high stock returns experience a 2.5% higher likelihood of CEO turnover relative to control firms following the TCJA. This increase in turnover is concentrated in states with weaker enforcement of non-compete agreements, consistent with the idea that tax-motivated CEO departures are more likely when executives face lower personal costs of transition. We further find that firms tend to replace their departing higher-ability CEOs with less expensive successors.

This pattern of increased CEO turnover among higher-ability executives echoes the argument by Murphy and Jensen (2018) that regulatory interventions may have unintended consequences and impose significant costs on firms. In line with this view, we also find that the removal of tax deductibility for performance-based pay has negative implications for firm value, when controlling for other provisions of the tax reform. Specifically, we document a negative and statistically significant relation between the share of CEO performance-based pay and abnormal stock returns in response to news about the TCJA's repeal of performance-based pay deductibility, with the average firm experiencing a $17 million decline in value.

Overall, our findings provide novel evidence that tax policy can distort the design of executive compensation. On the one hand, we find that eliminating the unequal

tax treatment of different forms of pay (i.e., the removal of the tax deductibility of performance-based pay) prompts firms to readjust their compensation structures and move toward a different pay mix. This suggests that many firms had previously maintained inefficiently high levels of performance pay primarily to capture tax benefits. On the other hand, the expansion of the $1 million deductibility limit increases the after-tax cost of executive compensation, prompting firms to reduce CEO pay and resulting in significant negative consequences for executive retention. These results underscore the importance of considering how tax policy may generate unintended consequences, particularly when tax advantages encourage firms to adopt structures that would not be chosen on economic grounds alone.

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Appendix A. Proofs

Proof of Proposition 1. (i) Using expressions (2), (8), and (10), we can find the expected value:

$$E[V] = ke^* = \frac{b^* k^2}{c} = \frac{k^4}{c\left(c\rho\sigma^2 + k^2\left(1-2\tau\right)\right)}. \tag{15}$$

We can calculate the amount of performance-based pay and its proportion in total pay as follows:

$$b^* E[V] = \frac{k^6}{c\left(c\rho\sigma^2 + k^2\left(1-2\tau\right)\right)^2}, \tag{16}$$

$$\frac{b^* E[V]}{E[s]} = \frac{2k^6}{2c\overline{W}\left(c\rho\sigma^2 + k^2\left(1-2\tau\right)\right)^2 + k^4\left(c\rho\sigma^2 + k^2\right)}. \tag{17}$$

When $\tau = 0$ in the formulas above, both $b^* E[V]$ and $\frac{b^* E[V]}{E[s]}$ decrease.
(ii) Similarly, we can use (2) to find the total expected compensation:

$$E[s] = w^* + b^* E[V] = \overline{W} + \frac{k^4\left(c\rho\sigma^2 + k^2\right)}{2c\left(c\rho\sigma^2 + k^2\left(1-2\tau\right)\right)^2}. \tag{18}$$

When the tax subsidy is repealed, i.e., when $\tau = 0$ in the formula above, we can see that $E[s]$ decreases by

$$E[s_\tau] - E[s_0] = \frac{2\tau k^6}{c\left(c\rho\sigma^2 + k^2\left(1-2\tau\right)\right)\left(c\rho\sigma^2 + k^2\right)} > 0. \tag{19}$$

(iii) Firm value is the principal's value net of compensation costs, $P \equiv E\left[V - s + \tau b V\right]$, and it is given in (12). When the tax subsidy is repealed, firm value decreases by

$$P_\tau - P_0 = \frac{\tau k^6}{c\left(c\rho\sigma^2 + k^2\left(1-2\tau\right)\right)\left(c\rho\sigma^2 + k^2\right)} > 0. \tag{20}$$

(iv) Finally, the effect of the tax subsidy on the fixed wage, w^*, is ambiguous because the numerator in the second term of (11) can be either positive or negative. □

Proof of Proposition 2. Given our assumptions, the firm switches from a high-ability CEO to a low-ability CEO following the repeal of the tax subsidy. The CEO's performance-based component of the contract then changes from $b^*_{H,\tau} = \frac{k_H^2}{c\rho\sigma^2 + k_H^2(1-2\tau)}$ to $b^*_{L,0} = \frac{k_L^2}{c\rho\sigma^2 + k_L^2}$, resulting

in a decrease in the amount of performance-based pay by

$$b^*_{H,\tau}E[V_{H,\tau}] - b^*_{L,0}E[V_{L,0}] = \frac{\left(k_H^6 - k_L^6\right) c\rho^2\sigma^4}{\left(c\rho\sigma^2 + k_L^2\right)^2\left(c\rho\sigma^2 + k_H^2\left(1-2\tau\right)\right)^2} \tag{21}$$
$$+\frac{\left(k_H^2 - k_L^2\right)\left(k_L^2k_H^2 + 2c\rho\sigma^2\left(k_H^2 + k_L^2\right)\right)k_L^2k_H^2}{c\left(c\rho\sigma^2 + k_L^2\right)^2\left(c\rho\sigma^2 + k_H^2\left(1-2\tau\right)\right)^2} + \frac{4\tau k_L^6k_H^2}{c\left(c\rho\sigma^2 + k_L^2\right)^2\left(c\rho\sigma^2 + k_H^2\left(1-2\tau\right)\right)}.$$

Because $k_H > k_L$ and $\tau > 0$, the expression above is positive; i.e., $b^*_{L,0}E[V_{L,0}] < b^*_{H,\tau}E[V_{H,\tau}]$. Note that if $k_L = k_H = k$ (i.e., there is no CEO turnover), then the first two terms above are zero, implying that the decrease in the amount of performance-based pay is larger with CEO turnover. Similarly, one can show that the total expected compensation declines by

$$\begin{aligned} E[s_{H,\tau} - s_{L,0}] &= \overline{W}_H - \overline{W}_L + \left(k_H^2 - k_L^2\right)\frac{\left(k_H^2k_L^2 + \left(k_H^2 + k_L^2\right)c\rho\sigma^2\right)\left(c\rho\sigma^2 + k_H^2\right)}{2c\left(c\rho\sigma^2 + k_L^2\right)\left(c\rho\sigma^2 + k_H^2\left(1-2\tau\right)\right)^2} \\ &\quad + \frac{2\tau k_H^2k_L^4}{c\left(c\rho\sigma^2 + k_L^2\right)\left(c\rho\sigma^2 + k_H^2\left(1-2\tau\right)\right)}. \end{aligned} \tag{22}$$

Note that if $k_L = k_H = k$ and $\overline{W}_L = \overline{W}_H = \overline{W}$ (i.e., there is no CEO turnover), then the first two terms proportional to $\left(\overline{W}_H - \overline{W}_L\right)$ and $\left(k_H^2 - k_L^2\right)$ are zero, implying that the decrease in the total pay is larger with CEO turnover. Finally, CEO turnover occurs because once the firm switches from offering the contract $(w_{H,\tau}, b_{H,\tau})$ to $(w_{L,0}, b_{L,0})$, the individual-rationality constraint of the high-ability CEO is no longer satisfied. □

Appendix B. Variable Definitions

Variable Name	*Description*
Post	An indicator variable equal to one for firm fiscal years beginning on or after January 1, 2018, and zero otherwise.
CEO	An indicator variable equal to one if a given executive is a firm's CEO in a given year, and zero otherwise.
Treated	An indicator variable equal to one if a firm's CEO has above-median performance pay prior to the TCJA (during 2013-2016), and zero otherwise.
Total Pay	Total annual compensation in $000s.
Performance Pay	All compensation linked to a performance goal in $000s.
Non-Performance Pay	All compensation not linked to a performance goal in $000s.
%Performance Pay	Performance pay scaled by total annual pay.
ST Performance Pay	Total pay linked to a short-term (less than/equal to 12 months) goal.
LT Performance Pay	Total pay linked to a long-term (more than 12 months) goal.
Accounting-Based Performance Pay	Total pay linked to an accounting performance goal.
Stock-Based Performance Pay	Total pay linked to a stock price/market performance goal.
Firm Size	The natural logarithm of firm's total book assets.
Stock Return	Firm's stock return over its fiscal year.
ROA	Net income scaled by total book assets.
Leverage	The sum of short- and long-term debt scaled by total book assets.
CEO Turnover	An indicator variable equal to one if there is a CEO turnover during a firm's fiscal year, and zero otherwise.
Net deferred tax liabilities (NDTL)	Deferred tax liabilities minus deferred tax assets divided by the book value of assets.
Net operating loss (NOL)	A dummy variable equal to one if pretax income is negative and zero otherwise.

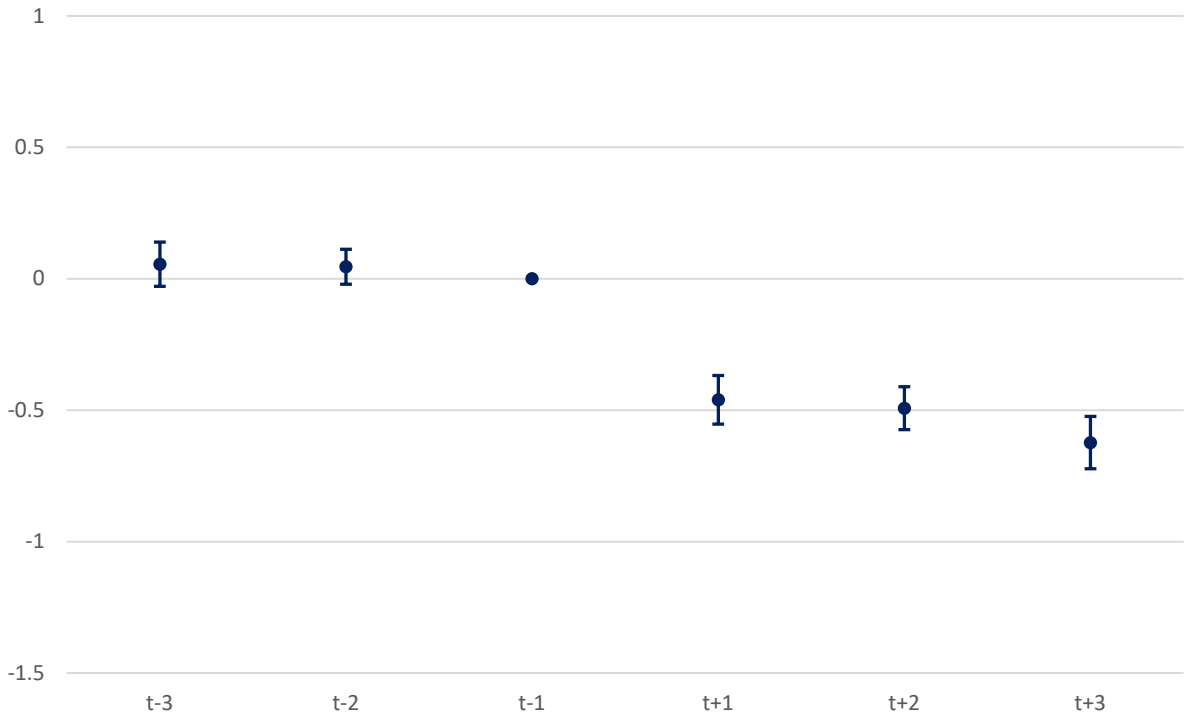


Figure 1. CEO Performance Pay Around TCJA (Difference-in-Differences). This figure reports the effect of TCJA on CEO performance-based pay. The sample comes from Incentive Lab, includes firms' CEOs, and covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). Performance-based pay is regressed on year indicator variables interacted with treatment indicator. The model includes CEO-firm fixed effects and is estimated using Poisson model. The year prior to the law's enactment serves as the baseline year to which all other years are compared. The y-axis plots the coefficient estimates on each year indicator. The x-axis shows the year relative to the TCJA effective year. The blue error bars illustrate the 95% confidence intervals of the coefficient estimates, based on standard errors clustered at the firm level.

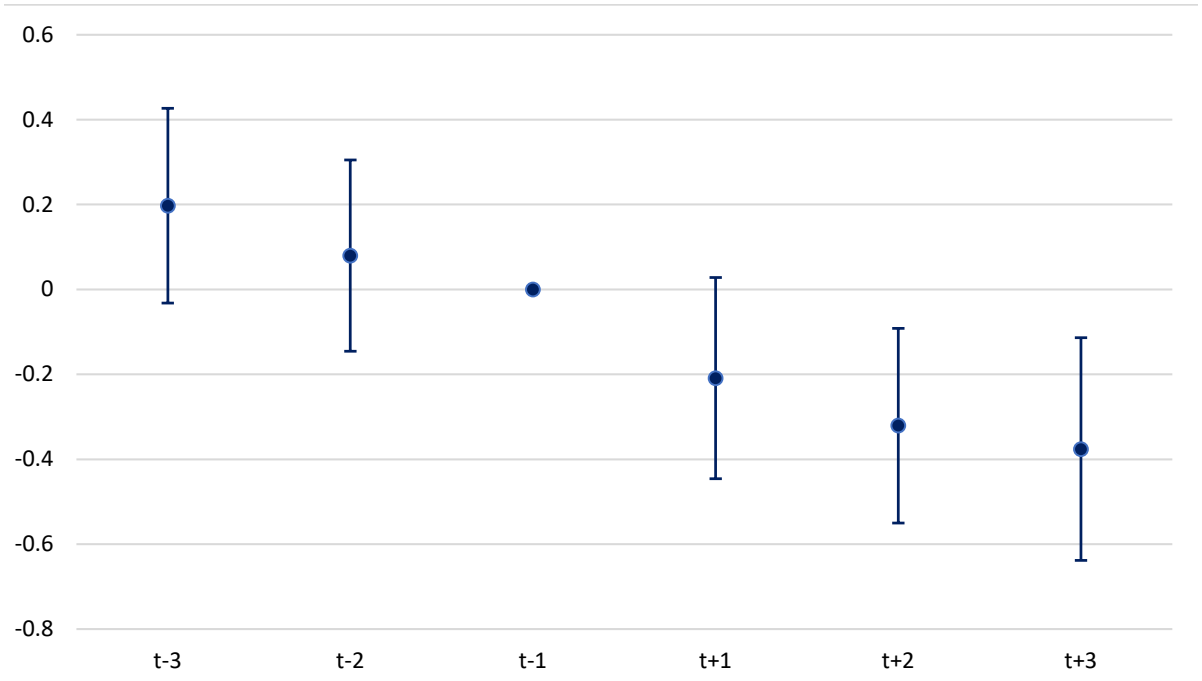


Figure 2. CEO Performance Pay Around TCJA (Triple Differences). This figure reports the effect of TCJA on CEO performance pay. The sample comes from Incentive Lab, includes firms' CEOs as well as other executives ranked below top five in terms of total compensation, and covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). Performance pay is regressed on year indicator variables interacted with treatment indicator and CEO indicator. The model includes firm-year fixed effects and is estimated using Poisson model. The year prior to the law's enactment serves as the baseline year to which all other years are compared. The y-axis plots the coefficient estimates on each year indicator. The x-axis shows the year relative to the TCJA effective year. The blue error bars illustrate the 95% confidence intervals of the coefficient estimates, based on standard errors clustered at the firm level.

Table 1. Summary Statistics

This table presents summary statistics for main variables. The firm-year sample consists of firms in IncentiveLab for the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). All continuous variables are winsorized at the 1st and 99th percentile values. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

Panel A: Summary Statistics

Variable	Mean	SD	P25	P50	P75	N
Total Pay, $000s	7,036	6,867	2,560	4,985	9,020	15,363
Performance Pay, $000s	3,233	3,896	575	1,957	4,374	15,363
Non-Performance Pay, $000s	3,688	3,892	1,306	2,480	4,544	15,363
% Performance Pay	0.414	0.242	0.229	0.460	0.575	15,363
ST Performance Pay, $000s	1,321	1,682	363	850	1,520	15,363
LT Performance Pay, $000s	1,915	2,986	0	722	2,619	15,363
Accounting-Based Performance Pay, $000s	2,122	3,008	0	977	2,850	15,363
Stock-Based Performance Pay, $000s	1,108	2,243	0	0	1,300	15,363
Firm Size	7.668	1.912	6.378	7.696	8.923	15,193
Assets, $M	11,689	32,180	588	2,198	7,499	15,195
Stock Return	0.103	0.410	-0.142	0.073	0.292	13,795
ROA	-0.026	0.212	-0.016	0.025	0.064	14,610
Leverage	0.280	0.237	0.074	0.249	0.423	15,193
NOL	0.281	0.450	0	0	1	15,313
NDTL	0.009	0.049	-0.006	0	0.024	13,799
CEO Turnover	0.105	0.306	0	0	0	14,321

Table 2. TCJA and CEO Pay

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay. The sample comes from Incentive Lab, includes firms' CEOs, and covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. The dependent variable is CEO performance-based pay in specifications 1-2; CEO performance-based pay normalized by total CEO compensation in specifications 3-4; non-performance-based CEO pay in specifications 5-6; and total CEO compensation in specifications 7-8. The model is estimated using Poisson regressions in specifications 1-2 and 5-8 (where the dependent variables are measured in dollar amounts), and OLS regressions in specifications 3-4 (where the dependent variable is a ratio). CEO-firm and year fixed effects are included in all specifications. Standard errors are clustered at the firm level. *t*-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are provided in Appendix B.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	*Performance Pay*		*% Performance Pay*		*Non-Performance Pay*		*Total Pay*	
Estimation:	Poisson		OLS		Poisson		Poisson	
Treated × Post	-0.545***	-0.478***	-0.042***	-0.037***	-0.167***	-0.086***	-0.256***	-0.183***
	[-16.05]	[-12.23]	[-5.62]	[-4.47]	[-5.72]	[-2.78]	[-10.56]	[-6.98]
Firm Size		0.123***		0.013*		0.074**		0.075***
		[3.80]		[1.65]		[2.14]		[2.71]
Stock Return		0.082***		0.004		0.105***		0.101***
		[3.58]		[0.90]		[4.94]		[5.53]
ROA		-0.250		-0.046*		-0.151*		-0.195**
		[-1.60]		[-1.86]		[-1.74]		[-2.05]
Leverage		0.016		0.013		0.087		0.093
		[0.14]		[0.47]		[0.76]		[0.95]
NDTL		-0.595**		-0.151		0.087		-0.301
		[-1.98]		[-1.60]		[0.26]		[-1.12]
NOL		-0.073**		-0.014*		-0.029		-0.059**
		[-2.09]		[-1.87]		[-0.96]		[-2.20]
Observations	14,052	11,240	14,680	11,703	14,680	11,703	14,680	11,703
R-squared	0.815	0.828	0.743	0.754	0.724	0.761	0.797	0.832
CEO-Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y

Table 3. TCJA and CEO Pay: Controlling for Differential Trends for Firms with Different Characteristics

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay. The sample comes from Incentive Lab, includes firms' CEOs, and covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. The dependent variable is CEO performance-based pay in specification 1; CEO performance-based pay normalized by total CEO compensation in specification 2; non-performance-based CEO pay in specification 3; and total CEO compensation in specification 4. The model is estimated using Poisson regressions in specifications 1 and 3-4 (where the dependent variables are measured in dollar amounts), and OLS regressions in specification 2 (where the dependent variable is a ratio). Standard errors are clustered at the firm level. t-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

Dependent Variable:	(1) *Performance Pay*	(2) *% Performance Pay*	(3) *Non-Performance Pay*	(4) *Total Pay*
Estimation:	Poisson	OLS	Poisson	Poisson
Treated × Post	-0.500***	-0.052***	-0.124***	-0.213***
	[-11.07]	[-4.96]	[-3.20]	[-6.45]
Observations	10,948	11,326	11,326	11,326
R-squared	0.830	0.747	0.756	0.833
CEO-Firm FE	Y	Y	Y	Y
Year-Size FE	Y	Y	Y	Y
Year-Return FE	Y	Y	Y	Y
Year-ROA FE	Y	Y	Y	Y
Year-Leverage FE	Y	Y	Y	Y
Year-NDTL FE	Y	Y	Y	Y
Year-NOL FE	Y	Y	Y	Y

Table 4. TCJA and CEO Pay: Identification Using Other Executives' Pay in the Same Firm-Year

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay. The sample comes from Incentive Lab and includes firms' CEOs as well as other executives ranked below top five in terms of total compensation. The sample period spans the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. *CEO* is a dummy variable equal to one if the executive is the firm's CEO, and zero otherwise. The dependent variable is CEO performance-based pay in specification 1; CEO performance-based pay normalized by total CEO compensation in specification 2; non-performance-based CEO pay in specification 3; and total CEO compensation in specification 4. The model is estimated using Poisson regressions in specifications 1 and 3-4 (where the dependent variables are measured in dollar amounts), and an OLS regression in specification 2 (where the dependent variable is a ratio). Standard errors are clustered at the firm level. t-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

Dependent Variable:	(1) *Performance Pay*	(2) *% Performance Pay*	(3) *Non-Performance Pay*	(4) *Total Pay*
Estimation:	Poisson	OLS	Poisson	Poisson
Treated × Post × CEO	-0.395***	-0.059***	0.030	-0.157***
	[-5.10]	[-3.88]	[0.44]	[-2.65]
Observations	6,695	6,899	6,899	6,899
R-squared	0.936	0.761	0.918	0.947
Firm-Year FE	Y	Y	Y	Y
CEO-Year FE	Y	Y	Y	Y
CEO-Treated FE	Y	Y	Y	Y

Table 5. CEO Pay and TCJA: Types of Performance Pay

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on type of CEO performance pay. The sample in Panel A includes firms' CEOs and in Panel B it includes firms' CEOs as well as other executives ranked below top five in terms of total compensation. The sample period covers fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. *CEO* is a dummy variable equal to one if the executive is the firm's CEO, and zero otherwise. The dependent variable in Panel A is short-term performance pay in specifications 1-2; long-term performance pay in specifications 3-4; accounting-based performance pay in specifications 5-6; and stock-based performance pay in specifications 7-8. The dependent variable in Panel B is short-term performance pay in specification 1; long-term performance pay in specification 2; accounting-based performance pay in specification 3; and stock-based performance pay in specification 4. The model is estimated using Poisson regressions. Standard errors are clustered at the firm level. t-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

Panel A: CEO Compensation (Difference-in-Differences)

Dependent Variable:	(1) *ST Performance Pay*	(2) *LT Performance Pay*	(3) *Accounting-Based Performance Pay*	(4) *Stock-Based Performance Pay*
Treated × Post	-0.321***	-0.813***	-0.402***	-0.784***
	[-9.47]	[-14.26]	[-9.78]	[-10.60]
Observations	13,622	11,117	12,488	7,544
R-squared	0.800	0.692	0.759	0.624
Diff Coeffs (p-value)		0.001***		0.001***
CEO-Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Panel B: Executive Compensation (Triple Differences)

Dependent Variable:	(1) *ST Performance Pay*	(2) *LT Performance Pay*	(3) *Accounting-Based Performance Pay*	(4) *Stock-Based Performance Pay*
Treated × Post × CEO	-0.225***	-0.450***	-0.273***	-0.547***
	[-3.15]	[-3.34]	[-3.26]	[-3.05]
Observations	6,477	5,113	5,844	3,247
R-squared	0.907	0.914	0.931	0.909
Diff Coeffs (p-value)		0.11		0.13
Firm-Year FE	Y	Y	Y	Y
CEO-Year FE	Y	Y	Y	Y
CEO-Treated FE	Y	Y	Y	Y

Table 6. TCJA and CEO Turnover

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO turnover. The sample comes from IncentiveLab and includes firms' CEOs. The sample covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). The dependent variable is CEO turnover. *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. Standard errors are clustered at the firm level. *t*-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable:			*CEO Turnover*			
Treated × Post	-0.035**	-0.030*	-0.027*	-0.033*	-0.052**	-0.050**
	[-2.14]	[-1.68]	[-1.69]	[-1.83]	[-2.32]	[-2.09]
Treated × Post × High Stock Return	0.060***	0.049**				
	[2.70]	[2.03]				
Treated × Post × High ROA			0.027	0.047*		
			[1.20]	[1.90]		
Treated × Post × Low Noncompete					0.060**	0.057**
Enforcement					[2.33]	[2.07]
Firm Size		0.032**		0.034**		0.030**
		[2.33]		[2.40]		[2.18]
Stock Return		-0.037***		-0.038***		-0.042***
		[-4.48]		[-4.70]		[-5.10]
ROA		-0.111***		-0.114***		-0.113***
		[-2.59]		[-2.70]		[-2.63]
Leverage		-0.044		-0.049		-0.052
		[-1.17]		[-1.32]		[-1.37]
NDTL		-0.163		-0.170		-0.166
		[-1.01]		[-1.05]		[-0.99]
NOL		-0.006		-0.007		-0.006
		[-0.41]		[-0.50]		[-0.40]
Observations	12,692	11,190	12,684	11,142	12,794	10,872
R-squared	0.175	0.186	0.178	0.189	0.180	0.188
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y

Table 7. Do New CEOs Have Lower Performance Pay and Total Pay?

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO turnover. The sample comes from Incentive Lab and includes firms' CEOs. The sample covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. The dependent variable is CEO performance-based pay in specification 1; CEO performance-based pay normalized by total CEO compensation in specification 2; and total CEO compensation in specification 4. The model is estimated using Poisson regressions in specifications 1 and 3 (where the dependent variables are measured in dollar amounts), and an OLS regression in specification 2 (where the dependent variable is a ratio). Standard errors are clustered at the firm level. *t*-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable:	*Performance Pay*		*% Performance Pay*		*Total Pay*	
Estimation:	Poisson		OLS		Poisson	
Treated × Post	-0.547***	-0.502***	-0.036***	-0.038***	-0.275***	-0.200***
	[-15.30]	[-12.00]	[-5.26]	[-4.97]	[-10.86]	[-7.15]
Treated × Post × CEO Turnover	-0.138*	-0.025	-0.053***	-0.042***	-0.140**	-0.137**
Post-TCJA	[-1.90]	[-0.33]	[-3.67]	[-2.71]	[-2.46]	[-2.35]
Firm Size		0.140***		0.012*		0.110***
		[3.95]		[1.68]		[3.77]
Stock Return		0.082***		0.005		0.102***
		[3.79]		[1.28]		[5.65]
ROA		-0.049		-0.035		-0.129
		[-0.36]		[-1.59]		[-1.52]
Leverage		0.036		0.012		0.043
		[0.30]		[0.53]		[0.45]
NDTL		-0.220		-0.123		-0.181
		[-0.73]		[-1.55]		[-0.67]
NOL		-0.064*		-0.016**		-0.053**
		[-1.93]		[-2.53]		[-2.03]
Observations	14,183	11,440	14,700	11,815	14,700	11,815
R-squared	0.788	0.799	0.699	0.706	0.762	0.801
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y

Table 8. Performance Pay and TCJA Abnormal Returns Around TCJA Announcement

This table reports regression results on the effect of the level of performance-based pay on abnormal returns around the date when the House Ways and Means Committee released the first draft of the TCJA (November 2, 2017), which explicitly mentioned changes to the deductibility of performance-based executive compensation. Standard errors are clustered at the firm level. The dependent variable is the abnormal return on November 2, 2017, calculated using the Fama–French–Carhart four-factor model. t-statistics based on robust standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

	(1)	(2)	(3)	(4)
Dependent Variable:		*Abnormal Return, %*		
Performance Pay	-0.066***	-0.042*		
	[-3.31]	[-1.72]		
Performance Pay Decile			-0.107***	-0.066*
			[-4.02]	[-1.88]
Firm Size		-0.033		-0.022
		[-0.57]		[-0.37]
Leverage		-0.657*		-0.604*
		[-1.81]		[-1.66]
ROA		-1.450***		-1.352***
		[-2.79]		[-2.59]
Observations	2,421	2,323	2,421	2,323
R-squared	0.004	0.011	0.007	0.011

Internet Appendix

Table IA.1. Key Legislative Dates Related to the TCJA

This table summarizes key legislative events associated with the passage of the Tax Cuts and Jobs Act (TCJA), including the first formal mention of changes to the deductibility of performance-based executive compensation.

Date	*Event*
Sep 27, 2017	GOP leaders and the Trump administration release the "Unified Framework for Fixing Our Broken Tax Code".
Nov 2, 2017	House Ways and Means Committee releases its first draft of the TCJA, first time changes to the deductibility of performance-based executive compensation are mentioned.
Nov 16, 2017	House passes its version of the TCJA.
Dec 2, 2017	Senate passes its own version of the TCJA.
Dec 15, 2017	Conference committee reconciles House and Senate versions.
Dec 20, 2017	Senate passes final bill (after House revote).
Dec 22, 2017	The TCJA is signed into law by the President.

Table IA.2. Robustness: No Year Fixed Effects

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay. The sample comes from Incentive Lab, includes firms' CEOs, and covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. The dependent variable is CEO performance-based pay in specifications 1-2; CEO performance-based pay normalized by total CEO compensation in specifications 3-4; non-performance-based CEO pay in specifications 5-6; and total CEO compensation in specifications 7-8. The model is estimated using Poisson regressions in specifications 1-2 and 5-8 (where the dependent variables are measured in dollar amounts), and OLS regressions in specifications 3-4 (where the dependent variable is a ratio). CEO-firm fixed effects are included in all specifications. Standard errors are clustered at the firm level. t-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are provided in Appendix B.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	*Performance Pay*		*% Performance Pay*		*Non-Performance Pay*		*Total Pay*	
Estimation:	Poisson		OLS		Poisson		Poisson	
Post	0.715***	0.604***	0.062***	0.053***	0.227***	0.128***	0.380***	0.274***
	[23.63]	[16.66]	[10.90]	[8.03]	[9.89]	[4.94]	[19.60]	[12.42]
Treated × Post	-0.544***	-0.469***	-0.042***	-0.035***	-0.166***	-0.085***	-0.254***	-0.176***
	[-15.97]	[-11.97]	[-5.59]	[-4.30]	[-5.69]	[-2.73]	[-10.48]	[-6.74]
Firm Size		0.189***		0.024***		0.084**		0.116***
		[6.08]		[3.17]		[2.52]		[4.36]
Stock Return		0.089***		0.006		0.106***		0.106***
		[4.42]		[1.26]		[5.42]		[6.61]
ROA		-0.249		-0.053**		-0.155*		-0.206**
		[-1.55]		[-2.18]		[-1.79]		[-2.12]
Leverage		0.150		0.027		0.099		0.165*
		[1.28]		[0.96]		[0.89]		[1.73]
NDTL		-0.773***		-0.174*		0.060		-0.411
		[-2.59]		[-1.85]		[0.18]		[-1.53]
NOL		-0.067*		-0.013*		-0.030		-0.057**
		[-1.93]		[-1.84]		[-1.00]		[-2.14]
Observations	14,052	11,240	14,680	11,703	14,680	11,703	14,680	11,703
R-squared	0.809	0.825	0.740	0.752	0.722	0.761	0.793	0.830
CEO-Firm FE	Y	Y	Y	Y	Y	Y	Y	Y

Table IA.3. Robustness: Controlling for Industry by Year Fixed Effects

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay. The sample comes from Incentive Lab, includes firms' CEOs, and covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. The dependent variable is CEO performance-based pay in specifications 1-2; CEO performance-based pay normalized by total CEO compensation in specifications 3-4; non-performance-based CEO pay in specifications 5-6; and total CEO compensation in specifications 7-8. The model is estimated using Poisson regressions in specifications 1-2 and 5-8 (where the dependent variables are measured in dollar amounts), and OLS regressions in specifications 3-4 (where the dependent variable is a ratio). CEO-firm and industry-year fixed effects are included in all specifications. Standard errors are clustered at the firm level. t-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are provided in Appendix B.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	*Performance Pay*		*% Performance Pay*		*Non-Performance Pay*		*Total Pay*	
Estimation:	Poisson		OLS		Poisson		Poisson	
Treated × Post	-0.546***	-0.475***	-0.045***	-0.037***	-0.156***	-0.085***	-0.253***	-0.183***
	[-15.81]	[-11.89]	[-5.62]	[-4.24]	[-5.41]	[-2.83]	[-10.36]	[-7.07]
Firm Size		0.095**		0.009		0.074*		0.063**
		[2.46]		[1.05]		[1.95]		[1.99]
Stock Return		0.077***		0.003		0.095***		0.093***
		[3.21]		[0.58]		[4.42]		[5.07]
ROA		-0.221		-0.042*		-0.128		-0.163*
		[-1.44]		[-1.66]		[-1.48]		[-1.73]
Leverage		0.116		0.018		0.135		0.156
		[0.88]		[0.57]		[1.13]		[1.47]
NDTL		-0.499		-0.193*		0.261		-0.205
		[-1.57]		[-1.87]		[0.74]		[-0.74]
NOL		-0.082**		-0.014*		-0.022		-0.056**
		[-2.33]		[-1.85]		[-0.72]		[-2.10]
Observations	14,030	11,221	14,658	11,684	14,658	11,684	14,658	11,684
R-squared	0.823	0.838	0.754	0.766	0.741	0.780	0.808	0.844
CEO-Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Ind-Year FE	Y	Y	Y	Y	Y	Y	Y	Y

Table IA.4. Robustness: Controlling for One-Off Gains and Losses Related to Valuation of Deferred Tax Assets and Liabilities

This table reports the treatment effect of the Tax Cuts and Jobs Act on CEO pay, controlling for the effect of one-off gains and losses related to the valuation of deferred tax assets and liabilities. The sample comes from Incentive Lab, includes firms' CEOs, and covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. The dependent variable is CEO total pay in specifications 1–2; log of CEO total pay in specifications 3–4; performance-based CEO pay in specifications 5–6; and log of CEO performance-based pay in specifications 7–8. The model is estimated using Poisson regressions in specifications 1–2 and 5–6, and OLS regressions in specifications 3–4 and 7–8. CEO-firm and year fixed effects are included in all specifications. Standard errors are clustered at the firm level. t-statistics based on these clustered standard errors are reported in brackets. *t*-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are provided in Appendix B.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	*Total Pay*		*Log(Total Pay)*		*Performance Pay*		*Log(Performance Pay)*	
Estimation:	Poisson		OLS		Poisson		OLS	
Treated × Post	-0.245***	-0.183***	-0.249***	-0.143***	-0.554***	-0.478***	-0.304***	-0.232***
	[-9.31]	[-7.01]	[-9.88]	[-6.30]	[-15.00]	[-12.24]	[-9.71]	[-7.53]
NDTL × Post	0.214	0.117	0.081	0.257	-0.191	-0.306	-0.301	-0.269
	[0.87]	[0.48]	[0.31]	[1.12]	[-0.64]	[-1.05]	[-0.89]	[-0.78]
Firm Size		0.074***		0.166***		0.124***		0.150***
		[2.70]		[6.69]		[3.85]		[4.46]
Stock Return		0.101***		0.118***		0.082***		0.056***
		[5.53]		[7.18]		[3.58]		[2.94]
ROA		-0.194**		-0.097		-0.254		-0.221**
		[-2.03]		[-1.18]		[-1.63]		[-2.02]
Leverage		0.093		0.084		0.017		-0.005
		[0.94]		[0.97]		[0.14]		[-0.04]
NOL		-0.059**		-0.025		-0.073**		-0.078***
		[-2.20]		[-1.10]		[-2.11]		[-2.78]
NDTL	0.136	-0.310	0.252	-0.179	-0.180	-0.576*	-0.152	-0.444
	[0.53]	[-1.15]	[0.99]	[-0.67]	[-0.63]	[-1.92]	[-0.51]	[-1.41]
Observations	13,077	11,703	13,077	11,703	12,549	11,240	11,767	10,685
R-squared	0.796	0.832	0.800	0.850	0.814	0.829	0.850	0.861
CEO-Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y

Table IA.5. CEO Pay and TCJA: Propensity Score Matching

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay. We use propensity score matching with replacement on industry (two-digit SIC code) and firm size (total assets). *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. *CEO* is a dummy variable equal to one if the executive is the firm's CEO, and zero otherwise. The sample includes CEOs and spans fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date and fiscal year 2020. The dependent variable is CEO performance pay in specifications 1-2; CEO performance pay normalized by total compensation in specifications 3-4; non-performance CEO pay in specifications 5-6; and total CEO compensation in specifications 7-8. The model is estimated using Poisson regressions in specifications 1-2 and 5-8 (where the dependent variables are measured in dollar amounts), and OLS regressions in specification 3-4 (where the dependent variable is a ratio). *t*-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	*Performance Pay*		*% Performance Pay*		*Non-Performance Pay*		*Total Pay*	
Estimation:	Poisson		OLS		Poisson		Poisson	
Treated × Post	-0.630***	-0.639***	-0.062***	-0.072***	-0.071	-0.002	-0.188***	-0.137**
	[-6.93]	[-6.59]	[-3.60]	[-3.76]	[-0.67]	[-0.02]	[-2.76]	[-2.19]
Firm Size		0.176*		0.022		-0.082		-0.001
		[1.95]		[0.93]		[-0.83]		[-0.01]
Stock Return		0.097**		0.013		0.089**		0.106***
		[2.49]		[1.25]		[2.25]		[2.88]
ROA		-0.381*		-0.029		-0.302*		-0.442**
		[-1.69]		[-0.65]		[-1.80]		[-2.24]
Leverage		-0.162		-0.005		0.227		0.055
		[-0.72]		[-0.08]		[0.93]		[0.46]
NDTL		-0.214		-0.125		-0.226		-0.025
		[-0.40]		[-0.72]		[-0.26]		[-0.07]
NOL		-0.130***		-0.020		0.001		-0.070*
		[-2.65]		[-1.38]		[0.02]		[-1.86]
Observations	9,343	7,915	9,574	8,100	9,574	8,100	9,574	8,100
R-squared	0.732	0.742	0.706	0.719	0.719	0.749	0.762	0.785
CEO-Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y

Table IA.6. CEO Pay and TCJA: Identification Using International Firms' Compensation

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay using compensation data on U.S. and international firms. We use Propensity Score Matching with replacement and match each U.S. firm to at most three international firms on industry (two-digit SIC code) and firm size (total assets). *Treated (USA)* is a dummy variable equal to one if a firm is listed in the United States, and zero if it is listed in another country. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. The sample comes from Incentive Lab and includes firms' CEOs. The sample covers the period with fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). The dependent variable is CEO performance-based pay in specification 1; CEO performance-based pay normalized by total CEO compensation in specification 2; non-performance-based CEO pay in specification 3; and total CEO compensation in specification 4. The model is estimated using Poisson regressions in specifications 1 and 3-4 (where the dependent variables are measured in dollar amounts), and an OLS regression in specification 2 (where the dependent variable is a ratio). Standard errors are clustered at the firm level. t-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	*Performance Pay*		*% Performance Pay*		*Non-Performance Pay*		*Total Pay*	
Estimation:	Poisson		OLS		Poisson		Poisson	
Treated (USA) × Post	-0.087***	-0.110*	-0.024***	-0.033**	0.007	0.057	-0.032*	-0.013
	[-3.80]	[-1.69]	[-5.31]	[-2.00]	[0.27]	[0.75]	[-1.68]	[-0.23]
Observations	23,033	18,163	24,829	19,329	24,829	19,329	24,829	19,329
R-squared	0.826	0.836	0.805	0.809	0.738	0.768	0.801	0.831
CEO-Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	N	Y	N	Y	N	Y	N
Year-Size FE	N	Y	N	Y	N	Y	N	Y
Year-Return FE	N	Y	N	Y	N	Y	N	Y
Year-ROA FE	N	Y	N	Y	N	Y	N	Y
Year-Leverage FE	N	Y	N	Y	N	Y	N	Y
Year-NDTL FE	N	Y	N	Y	N	Y	N	Y
Year-NOL FE	N	Y	N	Y	N	Y	N	Y

Table IA.7. Robustness: Excluding Covid Period from the Sample

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay. *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. *CEO* is a dummy variable equal to one if the executive is the firm's CEO, and zero otherwise. The sample in Panel A includes CEOs and in Panel B it includes CEOs as well as other executives ranked below top five in terms of total compensation. The period spans fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date and fiscal year 2020. The dependent variable in Panel A is CEO performance pay in specification 1; CEO performance pay normalized by total compensation in specification 2; non-performance CEO pay in specification 3; and total CEO compensation in specification 4. The dependent variable in Panel B is executive performance pay in specification 1; executive performance pay normalized by total pay in specifications 2; executive non-performance pay in specification 3; and executive total pay in specification 4. Standard errors are clustered at the firm level. The model is estimated using Poisson regressions in specifications 1 and 3-4 (where the dependent variables are measured in dollar amounts), and OLS regressions in specification 2 (where the dependent variable is a ratio). t-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

Panel A: CEO Compensation (Difference-in-Differences)

	(1)	(2)	(3)	(4)
Dependent Variable:	*Performance Pay*	*% Performance Pay*	*Non-Performance Pay*	*Total Pay*
Estimation:	Poisson	OLS	Poisson	Poisson
Treated × Post	-0.561***	-0.037***	-0.207***	-0.288***
	[-14.65]	[-4.68]	[-6.47]	[-10.48]
Observations	11,173	11,661	11,661	11,661
R-squared	0.822	0.742	0.734	0.812
CEO-Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Panel B: Executive Compensation (Triple Differences)

	(1)	(2)	(3)	(4)
Dependent Variable:	*Performance Pay*	*% Performance Pay*	*Non-Performance Pay*	*Total Pay*
Estimation:	Poisson	OLS	Poisson	Poisson
Treated×Post×CEO	-0.385***	-0.053***	-0.003	-0.159**
	[-4.32]	[-3.11]	[-0.05]	[-2.38]
Observations	5,492	5,675	5,675	5,675
R-squared	0.934	0.762	0.918	0.945
Firm-Year FE	Y	Y	Y	Y
CEO-Year FE	Y	Y	Y	Y
CEO-Treated FE	Y	Y	Y	Y

Table IA.8. Robustness: OLS Regressions Using Log-Specifications

This table reports the treatment effect of the Tax Cuts and Jobs Act (TCJA) on CEO pay. *Treated* is a dummy variable equal to one if a firm had above-median performance-based pay in the period before TCJA enactment, and zero otherwise. *Post* is a dummy variable equal to one if a firm's fiscal year starts after January 1, 2018, and zero otherwise. *CEO* is a dummy variable equal to one if the executive is the firm's CEO, and zero otherwise. The sample in Panel A includes firms' CEOs and in Panel B it includes firms' CEOs as well as other executives ranked below top five in terms of total compensation. The sample period spans fiscal year ends from September 30, 2015 to November 30, 2021, excluding the three-month period prior to the TCJA's effective date (January 1, 2018). The dependent variable in Panel A is log of CEO performance pay in specification 1; log of CEO non-performance pay in specifications 2; and log of total CEO pay in specification 3. The dependent variable in Panel B is log of executive performance pay in specification 1; log of executive non-performance pay in specification 2; and log of total executive pay in specification 3. The model is estimated using OLS regressions. Standard errors are clustered at the firm level. t-statistics based on these clustered standard errors are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are in Appendix B.

Panel A: CEO Compensation (Difference-in-Differences)

	(1)	(2)	(3)
Dependent Variable:	*Log(Performance Pay)*	*Log(Non-Performance Pay)*	*Log(Total Pay)*
Treated × Post	-0.315***	-0.183***	-0.258***
	[-10.73]	[-6.60]	[-10.97]
Observations	13,145	14,663	14,680
R-squared	0.852	0.721	0.800
CEO-Firm FE	Y	Y	Y
Year FE	Y	Y	Y

Panel B: Executive Compensation (Triple Differences)

	(1)	(2)	(3)
Dependent Variable:	*Log(Performance Pay)*	*Log(Non-Performance Pay)*	*Log(Total Pay)*
Treated × Post × CEO	-0.473***	-0.068	-0.231***
	[-7.27]	[-1.32]	[-4.89]
Observations	6,231	6,857	6,899
R-squared	0.904	0.875	0.917
Firm-Year FE	Y	Y	Y
CEO-Year FE	Y	Y	Y
CEO-Treated FE	Y	Y	Y