GENDER DIFFERENCES IN PAY LEVELS:

AN EXAMINATION OF THE COMPENSATION OF UNIVERSITY PRESIDENTS

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ABSTRACT

Our paper studies how gender and organizational status affect a university president's compensation. Similar to previous findings, we hypothesize that women will receive less pay than men. However, we go beyond a dyadic view of individual differences to examine gender's impact on compensation, and we explicate the importance of institutional forces in understanding the gender pay gap. In doing so, we rely on organizational status and hypothesize that the gender pay gap will be less pronounced as a university's status rises. While we find that the gender pay gap persists within the university president context, we also find that as a university's status rises, the pay gap declines. Moreover, our findings show that the gender pay gap disappears at higher status universities. Hence, accounting for *where* the glass ceiling is broken is an important consideration in understanding the gender pay gap. In sum, by integrating a broader institutional perspective to explain gender differences in pay levels, our paper demonstrates the importance of contextualizing gender to better understand its effects on compensation.

Keywords: compensation, gender, presidents, institutions, status

INTRODUCTION

Gender effects on compensation have been the subject of hundreds of research studies over the past 40 years (Weichselbaumer and Winter- Ebmer 2005). A significant body of research has provided findings demonstrating the gender pay gap, consistently showing that women earn less than men. Explanations vary, ranging from individual-level human capital based arguments (Becker 1967) to more macro-level arguments tied to wage structures and occupations (Levanon et al. 2009). Overall, findings from these studies suggest that the gender pay gap remains quite significant. However, there are some promising emerging findings that highlight that once women have managed to break through the glass ceiling and reach the highest executive level (Hill et al. 2015), or when an organization is focused on reducing gender disparities (Leslie et al. 2017), then the gender pay gap may not be as robust.

To date, much of the gender compensation literature has focused mainly on either dyadic differences between men and women (e.g., individual-level characteristics such as experience or education) or broader differences in occupational choices to understand the gender pay gap (Jeong and Harrison 2017). While these studies have provided significant insight, there is growing evidence demonstrating that institutional forces can also be quite impactful when examining gender disparities (Leslie et al. 2017). For example, some organizations have set specific mandates or launched initiatives to reduce gender disparities (such as the gender pay gap), while other organizations have not taken any actions at all concerning such issues (Calvert Investments 2017). Accordingly, gender's impact on compensation may vary quite substantially among organizations, depending on the organization and its characteristics and actions. As such, by integrating broader institutional influences, such as an organization's status (defined as the category an organization occupies within a social hierarchy) (Sorenson 2014), further insight may be gained when examining gender's impact on compensation.

Therefore, the purpose of our study is to examine how organizational status influences differences in compensation between men and women. Specifically, our study focuses on understanding determinants of the compensation of U.S. university presidents. While we hypothesize that the gender pay gap persists within this setting (Barbezat and Hughes 2005, Pfeffer and Davis-Blake 1987), we also argue that an organization's *status* is a key mechanism for understanding the gender pay gap. Accordingly, we go beyond a *dyadic* view of gender and compensation to form theoretical arguments that integrate gender theory within a broader institutional perspective (Ostroff and Atwater 2003, Pfeffer and Davis-Blake 1987). In doing so, we rely on the importance of organizational status, and we predict that the higher a university's status, the less the female pay penalty.

Our analysis is based on 17 years of data and includes 2,316 matched observations using individual, organizational, and institutional characteristics, allowing us to create as much of an apples-to-apples comparison between men and women university presidents as possible. The results largely support our arguments. More precisely, our findings show that a gender pay gap does exist within U.S. universities. However, the gender pay gap narrows as a university's status increases—and interestingly, the gender pay gap even disappears at higher status universities. Hence, while breaking through the glass ceiling may help reduce the gender pay gap overall, accounting for *where* the glass is broken is also extremely important. Thus, by contextualizing gender effects on compensation and integrating a broader institutional perspective that simultaneously accounts for individual and organizational effects, our paper contributes to discussions in organizational scholarship interested in both status and gender related outcomes.

Overall, our results ally with the prolific pay gap research underpinned by gender theories such as "think leader, think male" (Schein 1973, 1975) that would predict female university presidents are mismatches with leader prototypes—since we find evidence for the gender pay gap. However, we also add to recent findings highlighting that broader institutional characteristics can have important implications for understanding differences in outcomes based on gender, and how differences in organizational status can help reduce gender disparities (e.g., Leslie et al. 2017). Furthermore, we manifest how higher status organizations can use their status to potentially lead positive societal changes. Therefore, by integrating institutional influences with gender theory, we show that there are substantial opportunities for future studies to take a more nuanced look to better understand what shapes differences in the outcomes of men and women in organizations, with institutional forces appearing to play a pivotal role in explaining these differences.

GENDER PAY GAP

A sizeable body of research documents a persistent pay gap between genders, revealing a female penalty for the compensation levels of women compared to men (e.g., Altonji and Blank 1999, Arulampalam et al. 2007, Kulich et al. 2011). Explanations for the gender pay gap have been grouped into three broad theoretical categories, namely, human capital, wage structures, and social-psychological (Blau and Kahn 2000, 2007). Regarding the first, human capital, the theoretical arguments for the gender pay gap are based mainly on differences in gender-specific factors, such as human capital accumulation (Becker 1967). For example, women are still more likely than men to leave the workforce temporarily or permanently upon the birth of a child or when illness requires care for a parent or spouse. This workforce detachment, if even for short periods of time, results in fewer years of experience in their jobs and industries, less firm-specific human capital, and greater unearned income (e.g., when leave is not fully paid).

These interruptions can lead to significant loss of economic value for women (Budig and England 2001). Consider that taking leave can have a compounding effect on lifetime earnings: Anderson and colleagues (2003) estimate the motherhood wage penalty to be about 10% of what non-mothers earn. Moreover, for both mothers and child-free women, benevolent sexism has recently been shown to limit women's opportunities to gain human capital through developmental experiences (King et al. 2012). That is, when managers "protect" female employees from challenging work assignments, this thwarts their upward career progress. For instance, a manager may not offer a woman with care-giving responsibilities a high-profile assignment that involves overnight travel, thus hindering her human capital development (Hoobler et al. 2014).

The second reason scholars have given for the gender pay gap is what Blau and Kahn (2007) call the wage structure. They define this as returns to individuals for their skills in employment in particular economic sectors. These are the rewards for employment in certain occupations, such as finance or investment banking. In this regard, more feminized occupations, such as sociology professors, reward differentially compared to a more masculine occupation, such as finance professors (Reskin and Roos 1990). This reason for the gender pay gap is different from the first, in that the jobs stand apart from the occupant of the job in determining wages (Fernandez and Friedrich 2011). More specifically, women finance professors should enjoy a similar compensation premium to men in academic finance. Under this reasoning, the fact that women tend to proliferate in feminized occupations and academic fields, therefore, explains part of the gender pay gap. These first two reasons for the gender pay gap are often considered the "rational" explanations—that women's credentials do not equal men's, and that women are working in lower paying jobs and occupational areas.

The third theoretical reason for the gender pay gap takes a different frame: Women are discriminated against in social-psychological ways, and this discrimination is reflected in their compensation. As one illustration, women often *begin* their career with initial salary shortfalls (Bertrand et al. 2010, Gerhart 1990), and these wage losses can endure as women advance through organizations. Moreover, many studies have shown that evaluators of women employees, such as their supervisors, can show a bias whereby women are perceived as less competent than men (Eagly and Karau 2002, Heilman et al. 1995); and these behaviors are associated with fewer advancement opportunities and potentially lower earnings (Rudman and Glick 1999). For instance, in a sample of transportation industry workers in the U.S., Hoobler and colleagues (2009) found that even after controlling for women's non-work roles such as mother and wife, which can detract from others' perceptions of their career commitment, women were still seen by their bosses as less of a fit with their jobs and organizations compared to men. These stereotypic expectations regarding the lack of fit between women and their occupations and organizations (Schein 1973, 1975) are substantial hurdles for women entering and progressing into hierarchically male-dominated jobs and positions such as the top management ranks in organizations (Cook and Glass 2014, Heilman 2001).

For example, Fernandez-Mateo and Fernandez (2016) find that executive search firms are less likely to interview female executives, indicating a bias that "bends the pipeline" to top management jobs—and importantly, this experience may also affect women executives' future decisions to compete for positions (Brands and Fernandez-Mateo 2017). Furthermore, Agarwal and colleagues (2016) highlight the importance of differential access to social activities and social capital, demonstrating that women who participate in the predominantly male activity of golfing have a higher likelihood of being appointed to a board position. In sum, women often face a myriad of challenges including fewer resources, less development, and lower evaluations compared to their male counterparts (Hoobler et al. 2014, Joshi 2014), all of which can make it more challenging to reach higher levels of organizations.

Moreover, Kulich and colleagues (2011) highlight that many of these stereotypical perceptions remain once women reach the executive level, and this can ultimately affect how the board evaluates a female executive. Consider that on top of potential biases by the board, stakeholders may also share these biases, as evidenced by findings showing that stock market reactions to the appointments of women CEOs were more negative compared to the reactions of male CEOs (Lee and James 2007). Consequently, women with similar backgrounds and performance often receive less total compensation than similarly qualified men. Based on the above arguments, we therefore expect that women university presidents will receive less total compensation compared to male university presidents. More specifically, we base this prediction on the first and third theoretical reasons above—gender-specific human capital factors and biases that women face due to others' lack-of-fit perceptions. Both theoretical ideas suggest that university president's earnings should be lower for women, as compared to men. We therefore hypothesize,

Hypothesis 1: *Female university presidents will receive less total compensation compared to male university presidents.*

University Status

In our previous hypothesis, we built on the vast literature supporting a gender pay gap. However, the degree to which gender affects total compensation is likely to vary based on broader institutional forces, such as the status of the organization (i.e., the university, in our study). It is important to first acknowledge that there are varying definitions of organizational status (Bitektine 2011, Lang and Lang 1988, Podolny 1993, Rindova et al. 2005). Our use of status aligns more closely with sociological perspectives and relies on the university's relative social standing among the broader hierarchy of universities (Sorenson 2014). This view of status is quite germane to our setting, since universities are routinely compared to each other through rankings in the popular press (Espeland and Sauder 2007). While these rankings can have a significant impact on universities, they can also impact universities' behaviors, with some universities even rewarding their president for increases in their university's status (Jaschik 2007). This is because there are a host of potential benefits that are garnered from having higher status and increased visibility within a social hierarchy (Merton 1968).

For example, the benefits conferred from having high status manifest both inside and outside the organization. Internally, employees of higher status organizations are thought to share a stronger sense of pride and belonging (Smidts et al. 2001), ultimately leading to a stronger level of commitment to the organization. Likewise, the positive perceptions tied to status from outside of the organization can also afford organizations advantages. For instance, Sine and colleagues (2003) found that higher status universities were able to license similar technologies at faster rates compared to their lower status counterparts. Accordingly, the increased visibility and recognition afforded by status play crucial roles in organizations' ability to access resources and attract higher quality resources (Finkelstein 1992).

However, since higher status organizations recognize their visibility and are concerned with *preserving* their status (in contrast to lower status organizations attempting to *gain* status), they are likely to be more aware of potential backlash associated with behaviors that could damage their status (Graffin et al. 2013, King and McDonnell 2015, Kovacs and Sharkey 2014, Rhee and Haunschild 2006). Consider the example that high status universities such as Columbia, Yale, and Brown have started initiatives spending more than $100 million to address diversity and inclusion. If a female president (who is one of the most visible actors within the university) does not receive at least an equitable amount of compensation to similar men at high status universities, the universities run the risk of being viewed as hypocritical and discriminatory. The potential backlash arising from this behavior could be quite costly. For example, McDonnell and King (2018) found a "halo tax" associated with employment lawsuits against high status organizations, where these organizations were punished more severely for violating the positive expectations tied to their high status. Similarly, Rhee and Haunschild (2006) found that more reputable automakers suffered more severely than other automakers for issuing product recalls.

Therefore, when ascertaining the role of status, it is important to acknowledge the potentially powerful combination of being 1) a woman in a historically male-dominated position, who is also 2) a leader of a high-status organization. Accordingly, while women presidents at any university should benefit compensation-wise from being in a job typically held by men (Blau and Kahn 2007), there should be an even greater benefit for women presidents at higher status universities, since these universities' visibility is far greater than lower status organizations. As such, high status universities must protect and preserve their valuable intangible assets (Perretti and Negro 2006). Therefore, the additional requirements needed to uphold higher levels of status should not only be reflected in the compensation of the presidents, but also help narrow the wage gap for women, given the normative pressures to conform to the behavioral expectations associated with higher status organizations (King and McDonnell 2015, Kovacs and Sharkey 2014, Rhee and Haunschild 2006). Thus, we hypothesize:

Hypothesis 2: *The status of the university moderates the relationship between having a female university president and total compensation in such a way that the gender effects are less negative as the status of a university increases*.

METHODS

Sample

We collected compensation data for 1,167 university presidents working for 707 universities in the United States over the period 2000-2016. This sample only included not-for-profit private and public universities that grant baccalaureate, masters, and doctoral degrees. Data on the compensation for university presidents was collected from the *Chronicle of Higher Education.* The *Chronicle* compiles the compensation data for private universities from the Internal Revenue Service's (IRS) Form 990, in which universities are obligated to disclose the pay and benefits of their highest paid employees. Compensation data for public universities are collected from databases maintained by state agencies such as Boards of Higher Education. University characteristics were collected from the Integrated Postsecondary Education Data System (IPEDS) of the National Center for Education Statistics, U.S. Department of Education. Presidents' characteristics such as age, experience, and degrees were collected from public sources such as official biographies, university announcements, as well as obituaries. Finally, data on the status of universities was collected from *U.S. News Best Colleges Rankings.*

To obtain our final sample, we eliminated observations where a university had more than one president during the year, had an interim president that served less than one full year, or when a president's compensation was reported as $0—which was the case for some religious colleges that allocate money to the religious order, rather than directly compensating their president. After addressing these concerns and ensuring available data on our main variables of interest, the final sample includes 1,002 presidents working for 641 universities.

Dependent Variables

Our dependent variable, *total compensation,* includes the sum of a president's base pay, bonus pay, and any other compensation awarded. We exclude deferred compensation from total compensation since it is typically related to retirement benefits, which can vary substantially from year to year. Additionally, we found evidence of skewness using the "sktest" command in Stata 14.1 when using the *Total Compensation* variable in its raw form. This skewness was significantly less of a concern when using the *Total Compensation* variable in its log-transformed form. Since the variable was skewed, we log transformed this variable in all models.

Independent and Moderating Variables

Female President. We created a dummy variable to denote whether the president is female (1=Yes, 0=No). The gender of the president was determined by using names and pictures that were featured in biographies, and was also supplemented from biographical descriptions, university press releases, among other publicly available information, which also confirmed the gender of the president.

University Status. To measure the status of the focal university, we created a categorical measure of status based on the raw score reported in the annual *U.S. News Best Colleges* rankings of "Best National Universities" and "Best Liberal Arts Colleges" (Rider and Negro 2015). Following McDonnell and King (2013), we converted the raw scores into quantile scores using the Stata 14.1 command xtile. We created three quantiles among the scores of all National Universities or Liberal Arts Colleges in the national category (or "first tier") of each year's ranking. We then assigned 0 to all universities that did not receive a score in the rankings.

Control Variables

University-level Characteristics

We controlled for eleven university-level characteristics that may affect the total compensation of the university president. These organizational variables were all obtained from the IPEDS database. Our first organizational control, *Student Enrollment* was measured as the 12-month full-time equivalent (FTE) student enrollment as derived from the IPEDS data (in 1,000s of students). This variable accounts for the size and complexity of the organization, which is an important predictor of executive compensation (Devers et al. 2007, Tosi et al. 2000). Our second university-level control, *Student Enrollment Growth,* accounts for the notion that some universities may face pressure to increase enrollment, which in turn could be used to evaluate the president and influence his or her compensation. This variable was calculated as a ratio and represents the year-over-year growth in enrollment.

Another organizational measure that a president may be evaluated on is the ability to generate resources for the university. Accordingly, we controlled for the *Endowment Growth* measured as the ratio increase (or decrease) year-over-year, since a university president may be rewarded for successfully raising financial resources for the university. Since the university's research reputation may also influence the level of a president's compensation, we controlled for the research classification of the university creating the variable, *Carnegie Classification.* This measure is tied to the Carnegie Classification as reported in the IPEDS data. Specifically, the variable is categorical and captures the highest degree awarded by an institution—the value "1" captures Baccalaureate Colleges, the value "2" captures Masters Colleges and Universities, and the value "3" captures Doctoral/Research Universities.

Furthermore, since public universities may face different resource constraints when determining a president's compensation, we created the variable *Private University* using a dummy variable taking the value “1” if the university was privately controlled and “0” if the university was public. Similarly, since religiously affiliated universities may have different organizational goals and missions, and perhaps different mandates for setting compensation when compared to public universities, we account for these potential institutional differences by creating the variable, *Religious University*, which is coded using a dummy variable (1=Yes, 0=No). Likewise, we also added two additional organizational controls that may affect a president’s compensation, namely, if a university is historically an all-woman university, or a historically black university, creating the dummy variables, *Women’s University* (1=Yes, 0=No) and *Historically Black University* (1=Yes, 0=No).

We also controlled for whether a university had a *NCAA Division I Football Program*, using a dummy variable (1=Yes, 0=No). This is important because having a prominent sports team could potentially bolster a university president’s compensation. For example, coaches of elite NCAA (National Collegiate Athletic Association) Division I football programs sometimes make more than the university president. As a result, this could lead to a bidding up process in total compensation (Ezzamel and Watson 1998), where the university or its stakeholders do not want to have sports coaches earning significantly more than the president. Additionally, to account for potential cost of living adjustments for living in an urban region, we created the variable *Urban Location* using a dummy variable if the university is not located in a rural area. We also include state dummies in each regression to account for regional differences in income and year dummies to account for compensation variations over time.

Finally, since many universities use benchmarking as part of their compensation practices (Bizjak et al. 2008, DiPrete et al. 2010, Faulkender and Yang 2010), and given that using benchmarking data is one way to satisfy the legal requirements of determining a university president’s compensation (Schwartz 2011), we created the ratio variable *Female Presidents (Reference Group)* that measures the proportion of women in the university reference group. This control variable helps account for the potential issue where being compared to more women could be detrimental in the context of a female pay penalty in U.S. universities (Belliveau 2005, England et al. 2000, Huffman and Velasco 1997, Sorensen 1994). The variable is calculated as the number of women in the focal university’s reference group, divided by the total number of universities in the reference group. The reference groups were derived from IPEDS based on a mandatory survey of approximately 7,000 postsecondary institutions that qualify for government funding and federal student aid (Title IX) which allows universities to compare themselves against a group of similar universities to benchmark key performance indicators such as graduation rates.[1]

Individual-level Characteristics

We accounted for 14 individual-level characteristics that may affect the level of total compensation. Since there are many aspects based on the president's previous experience that could affect his or her ability to garner higher compensation, we controlled for different types of experience that may allow the president to reach the university president level and negotiate for higher wages. First, we controlled for the reputational benefits that may accrue from a president's most immediate experience preceding their appointment as president (*Status of Former University*). This measure aims to capture benefits that may arise from higher status affiliations with a previous university. This variable uses the same quantile-based methodology of university status that we use for our moderating variable. For example, if their previous affiliation was with a high-status university, then they have a higher value (max 3)—whereas a lower value indicates that they were previously at a lower status university (min 0). This measure helps account for the possibility that some presidents may be in a better position to negotiate for higher pay, particularly if they were recently at a higher status university before being appointed as a university president. Likewise, we also controlled for status that may be found in the president's educational background (*Status of President's Education*). Again, for this measure, we used the same measure found in our university status measure from

[1] Universities can define a *custom* reference group for the IPEDS data comparisons. As an illustration, Harvard selected three universities, Princeton, Stanford, and Yale, for their custom reference group. The median number of universities in the reference group was 25 with a minimum of three reference universities and a maximum of 100 universities. If no custom reference group was provided, IPEDS generates an *automatic* reference group based on a proprietary algorithm considering Carnegie classification and enrollment, among other variables. We ran a t-test to evaluate whether the difference in the ratio of female presidents in custom reference groups and automatic reference groups was statistically different. The difference was not statistically different (delta = 0.003, p=0.36).

the *U.S. News Best Colleges* rankings, and we took the highest status quantile value from any university where they had obtained a degree.

Since our sample spans 17 years of data, we controlled for the tenure of the president (*President Tenure*). This measure was obtained from their biographical information and measures the number of years that the president has been in his or her current position. Furthermore, we controlled for the *President's Age* and obtained this information from their biographies (and other publicly available information). Additionally, many university presidents hold significant administrative experiences before they are appointed president. As such, we coded the variable *University Admin Experience* as "1" to denote whether the president had experience as dean of a college, a provost, a vice chancellor, or a similarly highly ranked administrative experience, and "0" otherwise. Moreover, some university presidents had experience as a president in a previous institution. If this was the case, we coded the variable *University President Experience* as "1", and "0" otherwise. This information regarding administrative experience was again gathered from president biographies or other public information.

Since not all presidents are appointed from within Academia, we created two measures that account for alternative experiences that may lead to reaching the university president level, and which might also affect their compensation. The first denotes whether the president has political experience. For example, some university presidents entered the position after serving as a governor or state senator. If the president's biography indicated a significant role within politics, we coded this experience accordingly using a dummy variable (1=Yes, 0=No) labeled *Political Experience*. Similarly, some presidents joined after having significant corporate careers. If the president indicated in their biography that they were a chief level officer or served as a corporate board member, we controlled for this experience using a dummy variable (1=Yes, 0=No) labeled *Top Executive and Board Experience*.

Because our arguments suggest that factors outside of experience and performance may also bias the level of compensation that a university president receives, we also controlled for whether the president is a racial minority. To code this variable, we used two approaches. First, we coded any president who was non-white based on their picture. Given that there are potential limitations to this approach, we also used biographical information to supplement this coding process. For example, we found that for many presidents from minority groups, this was an important aspect highlighted in their biography. As an illustration, in both the biography of Brown University's president Ruth Simmons and in the university announcement of her appointment, each source of information highlighted that she "will be the first African American to lead an Ivy League institution." Accordingly, for such presidents we coded the president as (1=Yes, 0=No) to create the variable *Minority Status*. Moreover, since internal hires may be perceived differently than external hires, we also coded whether the president was appointed from within the university, creating the dummy variable (1=Yes, 0=No) *Internal Hire*.

Finally, we included variables coding the field of academic study completed by the presidents. We created five dummy variables for which we derived information from official biographies. *Business Degree* was coded 1 if the president completed a PhD in business, often conferring a DBA. An example is Scott Cowen, president of Tulane University from 1998 through 2014, who received a Doctor of Business Administration (DBA) in finance and management from George Washington University. *Economics Degree* was coded 1 if the president completed a PhD in economics. *Law Degree* was coded 1 if the president completed a Juris Doctor (JD) degree. *Applied Sciences Degree* was coded 1 if the president received a PhD in engineering (such as chemical engineering or civil engineering) or healthcare (such as medicine or pharmacy). *Liberal Arts and Sciences Degree* was coded 1 if the president received a PhD in liberal arts such as humanities, languages, sociology, and history. Given that most presidents in our sample received a Liberal Arts and Sciences degree, we made this the reference category in our regression models.

Analytical Strategy

Our empirical models may be affected by selection-induced endogeneity (or nonrandom treatment) (Boivie et al. 2016, Chang and Chung 2017). Selection occurs when the treatment (i.e., female president) is not randomly assigned among our sample observations (Antonakis et al. 2010, p. 1094). The selection of women into top management positions is hindered by "supply-side" constraints (such as women questioning their leadership ability or expecting the cards to "be stacked against them") and "demand-side" hindrances (such as the existence of gatekeepers who bend the leadership pipeline towards men) (Fernandez-Mateo and Fernandez 2016). When the treatment is endogenous, observations for male presidents may be different from observations for female presidents on observable and unobservable factors. These factors may be correlated with the dependent variable *Total Compensation* and the treatment variable *Female President*. It is therefore important to model this selection process, rather than simply comparing the treatment group with control observations in the biased sample. Since creating a randomized sample of presidents with different genders is not viable, we use propensity score matching (PSM) to create a quasi-experimental sample.[2] In the first step, we create a control group of male presidents that closely resembles the treatment group of female presidents. In other words, we constructed a matched-sample study design that pairs each female president with a similar male president (the counterfactual).

First, we chose systematic (i.e., nonrandom) factors in the selection (and retention) decision of a university president. This predictive selection model relies on our full sample and considers both university and individual factors. We used the Stata 14.1 command "teffects" to create the propensity scores based on the following variables: *Student Enrollment, Private University, University Status, President Age, President Alma Mater, University Admin Experience, University President Experience, Political Experience, Top Executive and Board Experience, Minority Status, Business Degree, Economics Degree, Law Degree, Applied Sciences Degree, Liberal Arts and Sciences Degree*. These variables are theoretically related to the selection of a person for the university president position as well as affect the outcome of interest, which is recommended to improve the matching process (Austin 2011). We ran the matching process separately for each year to account for the longitudinal nature of our data and used nearest-neighbor matching (Guo and Fraser 2010). This matching procedure matched 1,158 university-year observations during which the president was female with 1,158 observations with a male university president.

[2] Ideally to run a selection model, we would need to identify which individuals were candidates, but not ultimately selected to be presidents. However, since universities are increasingly using closed door searches and relying on consulting firms to recruit university presidents, it is nearly impossible to identify the candidate pool.

Before we could use the quasi-experimental sample created by PSM, we needed to examine that the matching procedure created comparable groups. To ensure good matching quality, we ran balancing diagnostics to test whether the covariates are independent of treatment assignment. In other words, the distribution of measured covariates should be the same between treated and untreated individuals. We used individual t-tests to examine that the created groups are statistically similar (McDonnell and King 2013). The results in Table 1 suggest that the balancing property is fulfilled as the *p* values on the comparisons between treatment and matched group are far from significant. We should note that we initially included several predictors that primarily predict treatment such as Women's University, but these predictors were not balanced and therefore are not included in the selection model. This was expected as simulation studies suggest that variables that primarily predict selection are frequently unbalanced (Brookhart et al. 2006).

[Insert Table 1 about here]

After creating this quasi-randomized sample in the first step of our analysis, we continued our data analysis with regression models appropriate for panel data. These models account for additional predictors of *Total Compensation* that were not included in the propensity score model (Boivie et al. 2016, Paik and Woo 2017). Because our data takes the form of time-series cross-section (TSCS) data (also known as panel data), we are precluded from using ordinary least squares (OLS) estimation because the estimated coefficients may not be orthogonal to the error term, thus creating biased estimates. We therefore opted for random effects panel data models.

RESULTS

Table 2 reports correlation coefficients and descriptive statistics. We should first acknowledge that some of the included control variables show high correlations, but these correlations are expected and are also quite intuitive. For instance, private universities are less likely to have a NCAA Division I Football Program (r=-0.64) and are typically smaller in terms of student enrollment (r=-0.79) than public universities with broader educational missions. Similarly, universities in the highest Carnegie classification also have high student enrollments (r=0.70), meaning these institutions offer a wide variety of degree programs to many undergraduate and graduate students. High correlations only occur among control variables that are theoretically relevant to predict university president compensation. These controls help us to rule out alternative explanations for our hypotheses, but the high correlations preclude us from using these control variables to explain president compensation. Our results remain materially similar when we exclude these highly correlated variables from our models.

[Insert Table 2 about here]

Furthermore, some of the basic descriptive details of our sample also warrant some discussion and illustration. Table 3 compares several important variables between female and male presidents in our sample. Notably, female presidents generally receive less compensation than their male counterparts. However, this picture changes as we differentiate between high status and low status universities. While both female and male presidents receive considerably more compensation at high status universities, female presidents receive greater than $100,000 in total compensation more than male presidents. This interesting descriptive finding is examined in more detail with our matched-sample design and our multivariate panel regression models.

[Insert Table 3 about here]

Table 4 reports the results with total compensation as the dependent variable. Model 1 reports the coefficients for the control variables, which reveal some instructive findings. First, we find that total compensation is higher when the university is privately owned (64%). This result is in line with our expectations since private organizations may be under less public scrutiny from taxpayers and regulators. Second, when student enrollment increases, compensation for the university president also increases (1.1% for every 1,000-student increase in enrollment). This is consistent with long-standing findings in the executive compensation literature that organizational size is a main predictor of compensation (Tosi et al. 2000). We also find that a president's experience is an important determinant of compensation, with prior presidential experience leading to higher compensation (7.9%). Likewise, a president's education also affects his or her compensation, with higher educational status earning more (6.2%), and those with law degrees earning significantly more (14.5%).

Additionally, we also find that compensation increases for racial minorities (10.6%). This finding is consistent with findings from the corporate sector where minority CEOs receive higher compensation, as "business case for diversity" arguments suggest these individuals provide the organization with rare and difficult to imitate leadership resources (Hill et al. 2015). It is interesting to note that minority status has the opposite effect on the compensation of presidents from our prediction for female presidents and that there were very few minority women presidents in our sample. While caution should be used to interpret these findings, one interpretation of these results could be that minority status may still carry a pay premium in academia, whereas the relatively higher representation of female presidents in the university setting reduces or negates any potential pay premium. Interestingly, we also find that the ratio of female presidents in the reference group reduces compensation for all university presidents (men and women) who are part of that reference group (β = -0.210, $p < 0.001$). Accordingly, as more women comprise a reference group, the total compensation of the president declines regardless of the gender of the president.

[Insert Table 4 about here]

Model 2 introduces the independent variable female president. Hypothesis 1 predicts that female presidents receive less total compensation. This prediction is supported (β = -0.087, $p < 0.01$) and is also significant from a practical standpoint because it suggests that female presidents receive approximately 9% less in total compensation than their male counterparts. Model 3 includes the hypothesized interaction effect formed by Hypothesis 2, which predicts that working for a higher status university can reduce the negative effect of female president on total compensation. We find a significant coefficient on the product term (β = 0.067, $p < 0.001$). This coefficient is consistent with Hypothesis 2, but because the interpretation of the interaction coefficient may be difficult to understand, we also graphed this moderating effect in Figure 1. When accounting for the status of the focal university, the graph shows a marked pay penalty for female presidents at lower status universities. More precisely, the gender pay gap is driven by unranked and lower ranked universities. We provide more detail on this finding with simple slope tests in the following section.

[Insert Figure 1 about here]

Robustness Checks and Supplementary Analyses

We ran a host of alternative models to check for the robustness of our findings. First, we replaced our dependent variable *Total Compensation* with *Salary* (i.e., base compensation) to ensure that our results are not driven by idiosyncratic benefits such as club memberships or housing allowances. Salary is also unaffected by performance-based compensation components that may be outside of the control of the president (such as budget impasses for state universities or economic recessions). We log transformed *Salary* to account for the skewness in the data. We also control for any *Bonus Compensation* to account for potential substitution effects between salary and performance-based compensation components. Additionally, *Bonus Compensation* is an important predictor of salary as top executives often demand (and are granted) additional salary compensation when their compensation risk increases (Conyon et al. 2011). We included the results in Table 5 and again found support for the hypothesized effects. This was partly expected as the correlation between *Total Compensation* and *Salary* (r=0.77) was very high. Additionally, while most control variable effects are similar in direction and significance to the *Total Compensation* regressions, we do find some differences. For instance, *Urban Location* has a negative effect (p<0.01) on salary, rather than a positive effect (p<0.10) in the *Total Compensation* regressions. This may be due to universities providing more supplementary compensation such as housing benefits in urban areas like Chicago or New York. We should note that many universities in our sample did not report salary and bonus compensation separate from total compensation. Hence, the number of observations dropped significantly, which may explain some of the lack of significance for some of the control variable effects.

[Insert Table 5 about here]

Second, Hypothesis 2 suggests that the pay penalty increasingly reverses as university status increases. However, drawing conclusions from visualizations of the data as shown in Figure 1 is incomplete (Aiken and West 1991). Hence, we ran regressions in which we replaced the categorical variable *University Status* with dummy variables. We then ran four regressions setting the reference category to different status quantiles to conduct simple slope analyses. We found that the effect of female president was statistically different from zero for the difference in pay for unranked (status=0) (β =-0.150, p<0.01) and low ranked (status=1) (β =-0.083, p<0.01) universities. The difference was not statistically different for middle ranked (status=2) (β = -0.016, p>0.10) and high ranked (status=3) (β=0.051, p>0.10) universities (Table 1a in the Appendix). Furthermore, we also tested for potential differences at the *most* prestigious universities since prestigious universities have recently launched large-scale diversity initiatives. A simple slope test suggests that female presidents in the "top 10" highest ranked universities in the National Universities and Liberal Arts Colleges rankings published by *U.S. News* achieve a pay premium of 16.1% (p<0.05). While we take this as evidence that there may be a female pay advantage at the most prestigious universities, we should emphasize caution when viewing these results due to challenges with small number effects (Table 1b in the Appendix).

Third, we consider missing values on the *University Status* variable as zero in our main analysis, which assumes that non-ranked universities have low status universally. However, some variation in status among unranked universities may be present. We therefore conducted two robustness checks, namely (1) restricting the sample to observations that were ranked by *U.S. News* and (2) predicting the status scores for unranked universities. First, we excluded all universities with a missing *U.S. News* score in Table 2c (Model 1) in the Appendix. The coefficient on the interaction term remains significant (p<0.05). Second, we imputed the status of unranked universities (see Table 2a in the Appendix for the methodology) by building a regression model to predict the *U.S. News* raw scores (see Table 2b in the Appendix). This model explained 89% of variance in the *U.S. News* scores as measured by the overall R^2. The coefficient on the interaction term in Table 2c (Model 2) in the Appendix is again significant (p<0.01).

Fourth, to probe the robustness of our matching process, we used an alternative matching process following King and Nielsen (2016) and conducted Coarsened Exact Matching (CEM) as outlined in Blackwell et al. (2009). The benefit of using CEM is that it creates better balance between treatment and control groups and that increasing balance on one pre-treatment covariate does not affect the balance achieved on another pre-treatment variable. CEM also determines covariance balance ex-ante whereas PSM determines balance ex-post in an often lengthy and iterative process (Iacus et al. 2012). However, CEM also reduces the potential power of our analysis since not all treatment units (i.e., female presidents) are matched to male presidents. In other words, some female presidents will not be included in the final analysis. We followed Li, Xia, and Lin (2017) and used Stata's automatic binning algorithm to temporarily coarsen the data. We then matched the data on the same covariates that we used in the original PSM procedure, but we should note that CEM was unable to match 51% of the female presidents in our sample. While this is a substantial number, given that we still observe similar overall effects with this matching procedure and that it creates potentially better comparable (but fewer) matched female presidents, our confidence in the results is increased. Results of this analysis can be found in Table 3c of the Appendix.[3] We also ran all models without any matching approaches, and our main hypotheses are still supported (see Table 3d in the Appendix).

DISCUSSION

Our findings demonstrate that the gender pay gap persists within the broader context of university presidents. However, and encouragingly, we find that the gender pay gap narrows when accounting for the interaction of gender and organizational status, with our results showing that higher status universities (middle ranked universities and higher) compensate men and women more equitably. This finding underscores the importance of integrating institutional influences when examining gender-based outcomes. More specifically, our results show that as the status of the university rises, the pay gap declines—with the pay gap even disappearing at higher status universities. Therefore, our paper supports previous gender studies that focus primarily on the negative effect that gender has on women's compensation relative to men, but it also extends these studies by using gender to illustrate the salience of organizational status to help explain complex organizational phenomena— such as the gender pay gap.

Implications

Although we find that female university presidents were paid less than male presidents at lower status universities, supporting traditional gender theoretical approaches—that was just half of the story. Our

[3] We thank an anonymous reviewer for this suggestion to further support our findings.

institutional approach suggests that gender compensation differences likely stem from more than just gender-specific factors for women; rather, compensation differences between men and women are important to understand within broader institutional contexts. This is important because most of the existing research studying gender's effect on compensation measures how gender is related to differences in compensation from an assumed tokenism perspective in groups such as *Fortune 500* leaders, where women remain severely underrepresented. While this research has afforded many important insights, our sample, with better representation of women leaders (~20% vs 6% in the Fortune 500), takes the extant literature in a new direction by integrating broader theoretical approaches to better understand contexts where women have more representation and are approaching Kanter's (1977) recommended 30-35% threshold for critical mass.

Accordingly, our study's integrative approach shows how going beyond dyadic and occupational-based views can afford new insights into the gender wage gap and offers insight into when and where we would expect that the negative effect of gender will be less apparent. Thus, using a more nuanced way to understand differences in organizational outcomes between men and women offers fertile ground for future studies concerned with gender-based outcomes, suggesting that further exploration of broader institutional effects may be productive in helping scholars examine gender effects in settings where women's representation in leadership positions begins to improve. Furthermore, by demonstrating the importance of organizational status in understanding the gender pay gap, our paper explicates the importance of not only breaking the glass ceiling, but the need to contextualize *where* it is broken to better understand the determinants of the gender pay gap (Hill et al. 2015, Leslie et al. 2017).

To this end, there is little existing theory for when gender equality in compensation is likely to manifest, or when equality (or a pay advantage) between genders should emerge. This is understandable given that equality and female pay premiums remain exceptions, rather than the norm. However, considering Rosette and Tost's (2010) *female top leadership advantage* arguments, which are underpinned by status characteristics theory (Berger et al. 1972), our findings help showcase status' role in creating a possible disappearance of the gender pay gap. Accordingly, our study fills a void in theorizing about gendered pay—offering early support for institutional differences, such as differences in organizational status, as a way of understanding the underlying mechanisms that shape differences in organizational outcomes between men and women. This lays important groundwork for future studies as women's representation becomes more solidified in organizational roles that have been traditionally dominated by men, such as top-level executives.

Finally, our use of organizational status contributes to the status literature and shows that when women are imbued with higher status by their employing organizations, this likely enhances their image as "a flower blooming in winter," benefiting their compensation. Most prior studies examining status focus more specifically on the positive effects organizations garner from managers who have high status (Finkelstein 1992, Wade et al. 2006), or the potential benefits afforded to organizations that form affiliations with more prestigious organizations (Higgins and Gulati 2003). In contrast, our study examines how high status organizations may allow individuals to appropriate the value associated with organizations that have higher status. Despite this difference in focus, our findings do also align with the existing status literature in the sense that we show that higher status organizations can potentially use their influence to be leaders or early movers in important social areas, such as gender equity. In fact, our robustness checks show that at the most prestigious universities, there may even be a female pay advantage.

Practical Implications

Our findings have important implications that directly relate to policy makers, universities, and corporations that are trying to understand how diversity can impact and benefit their organizations. While also noted in our discussion of theoretical implications, the finding that women presidents at higher status universities earned similar compensation compared to male presidents, implicates universities in leading the way toward social change. Furthermore, since we provide *some* evidence for a female pay advantage manifested at the most prestigious universities, high status universities seem to be an appropriate place for women's leadership to be supported and further developed. Perhaps in this context women combat *less* public and organizational obstacles along their path to leadership. An optimistic perspective would be that if women's leadership becomes more commonplace in higher status educational institutions, this may pave the way for more women leaders at other universities and perhaps in the *Fortune* 500 and other for-profit organizations.

Finally, most consider higher education to be at the forefront in promoting environments of equal opportunity and a context that should encourage diverse ideas and perspectives. While we are glad to see that some women are receiving similar pay to men, the fact that women presidents represented less than 20% of university presidents across the time span of our data (despite student bodies that average approximately equal gender representation), and given that we find that many women presidents still suffer a pay gap, suggests that there is more work to do within higher education to build an environment where women have equal representation and compensation. Consequently, policy makers and universities alike should be aware that important challenges remain in ensuring better representation of women in senior leadership roles, if they are committed to supporting diversity initiatives.

Limitations and Future Research

Our study expands on the gender effect in executive compensation by utilizing a non-profit university sample where women leaders are better represented than in private firms. However, due to limitations such as few reporting requirements, we know little about who exactly is making the compensation decision in universities. Unfortunately, in contrast with publicly traded firms, where compensation committees are explicitly stated and must conform to government regulations, we do not know the exact underlying factors that lead decision makers to determine presidents' compensation. These compensation dynamics are important to understand since, for example, findings have shown that when more women are on compensation committees, the gender pay gap is reduced (Shin 2014).

Similarly, we cannot account for the applicant pool of candidates and how potential gender sorting may affect decisions surrounding the president (Brands and Fernandez-Mateo 2017, Fernandez and Campero 2017, Fernandez and Mors 2008). Likewise, the negotiation processes that determined compensation, and the role that search firms may play in the hiring process (Fernandez-Mateo and Fernandez 2016) are also outside the availability of our data. Interesting insight could be gained with access to such nuanced aspects that influence a university president's compensation, and how closed-door searches impact compensation differences. Furthermore, unlike for-profit contexts, where firm performance can be more easily calculated, we have few measures of university performance. This could be a consideration that drives compensation for which we do not have good measures. Additionally, we implicitly assume that all higher education organizations would prefer that the gender pay gap disappears, and that stakeholders are aligned with this objective. However, given that many U.S. universities still have not had a woman president in their history, perhaps the pursuit of equal compensation between genders is not a key concern for many organizations, especially those that do not have risks tied to heightened status and the visibility it affords.

Despite such limitations, our paper lays the groundwork for new theorizing on gender effects on organizational outcomes. While we focused solely on the compensation aspect related to gender, significant opportunities exist to understand gender's multi-level effect with a variety of other organizational outcomes. For example, the proportion of women in a reference group at one level in an organization may have important implications for new hires at other levels of the organization (Gould et al. 2018) and even aspects such as employee turnover. Therefore, much insight may be gained by taking a broader institutional perspective when understanding gender's impact on other organizational outcomes. We have merely scratched the surface in contributing to this important body of research studying gender's effect on organizational outcomes.

CONCLUSION

Our study contributes to the burgeoning field that focuses on gender's effect on organizational outcomes. While we add to the large body of literature that demonstrates that a gender pay gap exists, we also manifest the importance of contextualizing institutional perspectives in understanding the effect of gender on compensation. Our major contribution of this study is that we found support for the idea that status can add substantial insight into understanding the gender pay gap. In fact, once universities are ranked even at moderate levels, the gender pay gap disappears. This finding showcases that organizations with higher levels of status can use their status to benefit society in positive ways and underscores the importance of accounting for *where* the glass ceiling is broken.

REFERENCES

Agarwal S, Qian W, Reeb DM, Sing TF (2016) Playing the boys game: Golf buddies and board diversity. *Amer. Econom. Rev.* 106(5): 272–276.

Aiken LS, West SG (1991) *Multiple regression: Testing and interpreting interactions* (Sage, Thousand Oaks, CA).

Altonji JG, Blank RM (1999) Race and gender in the labor market. *Handb. Labor Econ.* (North Holland, New York), 3143–3259.

Anderson DJ, Binder M, Krause K (2003) The motherhood wage penalty revisited: Experience, heterogeneity, work effort, and work-schedule flexibility. *Ind. Labor Relat. Rev.* 56(2): 273–294.

Antonakis J, Bendahan S, Jacquart P, Lalive R (2010) On making causal claims: A review and recommendations. *Leadersh. Q.* 21(6): 1086–1120.

Arulampalam W, Booth AL, Bryan ML (2007) Is there a glass ceiling over Europe? Exploring the gender pay gap across the wage distribution. *Ind. Labor Relat. Rev.* 60(2): 163–186.

Austin PC (2011) An introduction to propensity score methods for reducing the effects of confounding in observational studies. *Multivar. Behav. Res.* 46(3): 399–424.

Barbezat DA, Hughes JW (2005) Salary structure effects and the gender pay gap in academia. *Res. High. Educ.* 46(6): 621–640.

Becker GS (1967) *Human capital and the personal distribution of income: An analytical approach* (Institute of Public Administration, Ann Arbor,MI).

Belliveau MA (2005) Blind ambition? The effects of social networks and institutional sex composition on the job search outcomes of elite coeducational and women's college graduates. *Organ. Sci.* 16(2): 134–150.

Berger J, Cohen BP, Zelditch M Jr (1972) Status characteristics and social interaction. *Am. Sociol. Rev.* 37(3): 241–255.

Bertrand M, Goldin C, Katz LF (2010) Dynamics of the gender gap for young professionals in the financial and corporate sectors. *Am. Econ. J. Appl. Econ.* 2(3): 228–255.

Bitektine A (2011) Toward a theory of social judgments of organizations: The case of legitimacy, reputation, and status. *Acad. Management Rev.* 36(1): 151–179.

Bizjak JM, Lemmon ML, Naveen L (2008) Does the use of peer groups contribute to higher pay and less efficient compensation? *J. Financial Econom.* 90(2): 152–168.

Blackwell M, Iacus S, King G, Porro G (2009) CEM: Coarsened exact matching in Stata. *Stata J.* 9(4): 524–546.

Blau FD, Kahn LM (2000) Gender differences in pay. *J. Econ. Perspect.* 14(4): 75–99.

Blau FD, Kahn LM (2007) The gender pay gap: Have women gone as far as they can? *Acad. Management Perspect.* 21(1): 7–23.

Boivie S, Graffin SD, Oliver AG, Withers MC (2016) Come aboard! Exploring the effects of directorships in the executive labor market. *Acad. Management J.* 59(5): 1681–1706.

Brands RA, Fernandez-Mateo I (2017) Leaning out: How negative recruitment experiences shape women's decisions to compete for executive roles. *Admin. Sci. Quart.* 62(3): 405–442.

Brookhart MA, Schneeweiss S, Rothman KJ, Glynn RJ, Avorn J, Stürmer T (2006) Variable selection for propensity score models. *Am. J. Epidemiol.* 163(12): 1149–1156.

Budig MJ, England P (2001) The wage penalty for motherhood. *Am. Sociol. Rev.* 66(2): 204–225.

Calvert Investments (2017) *The Calvert diversity report: Examining the cracks in the ceiling* (Calvert Investments. Available at: https://goo.gl/SDhzBM.

Chang S-J, Chung J (2017) A quasi-experimental approach to the multinationality-performance relationship: An application to learning-by-exporting. *Glob. Strategy J.* 7(3): 257–285.

Conyon MJ, Core JE, Guay WR (2011) Are U.S. CEOs paid more than U.K. CEOs? Inferences from risk-adjusted pay. *Rev. Financial Stud.* 24(2): 402–438.

Cook A, Glass C (2014) Above the glass ceiling: When are women and racial/ethnic minorities promoted to CEO? *Strategic Management J.* 35(7): 1080–1089.

Devers CE, Cannella AA, Reilly GP, Yoder ME (2007) Executive compensation: A multidisciplinary review of recent developments. *J. Management* 33(6): 1016–1072.

DiPrete TA, Eirich GM, Pittinsky M (2010) Compensation benchmarking, leapfrogs, and the surge in executive pay. *Amer. J. Psych.* 115(6): 1671–1712.

Eagly AH, Karau SJ (2002) Role congruity theory of prejudice toward female leaders. *Psychol. Rev.* 109(3): 573–598.

England P, Hermsen JM, Cotter DA (2000) The devaluation of women's work: A comment on Tam. *Amer. J. Psych.* 105(6): 1741–1751.

Espeland WN, Sauder M (2007) Rankings and reactivity: How public measures recreate social worlds. *Amer. J. Psych.* 113(1): 1–40.

Ezzamel M, Watson R (1998) Market comparison earnings and the bidding-up of executive cash compensation: Evidence from the United Kingdom. *Acad. Management J.* 41(2): 221–231.

Faulkender M, Yang J (2010) Inside the black box: The role and composition of compensation peer groups. *J. Financial Econom.* 96(2): 257–270.

Fernandez RM, Campero S (2017) Gender sorting and the glass ceiling in high-tech firms. *ILR Rev.* 70(1): 73–104.

Fernandez RM, Friedrich C (2011) Gender sorting at the application interface. *Ind. Relat. J. Econ. Soc.* 50(4): 591–609.

Fernandez RM, Mors ML (2008) Competing for jobs: Labor queues and gender sorting in the hiring process. *Soc. Sci. Res.* 37(4): 1061–1080.

Fernandez-Mateo I, Fernandez RM (2016) Bending the pipeline? Executive search and gender inequality in hiring for top management jobs. *Management Sci.* 62(12): 3636–3655.

Finkelstein S (1992) Power in top management teams: Dimensions, measurement, and validation. *Acad. Management J.* 35(3): 505–538.

Gerhart B (1990) Gender differences in current and starting salaries: The role of performance, college major, and job title. *Ind. Labor Relat. Rev.* 43(4): 418–433.

Gould JA, Kulik CT, Sardeshmukh SR (2018) Trickle-down effect: The impact of female board members on executive gender diversity. *Hum. Resour. Management* 57(4): 931–945.

Graffin SD, Bundy J, Porac JF, Wade JB, Quinn DP (2013) Falls from grace and the hazards of high status the 2009 British MP expense scandal and its impact on parliamentary elites. *Admin. Sci. Quart.* 58(3): 313–345.

Guo S, Fraser MW (2010) *Propensity score analysis: Statistical methods and applications* (Sage Publications, Thousand Oaks, CA).

Heilman ME (2001) Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *J. Soc. Issues* 57(4): 657–674.

Heilman ME, Block CJ, Martell RF (1995) Sex stereotypes: Do they influence perceptions of managers? *J. Soc. Behav. Personal.* 10(6): 237–252.

Higgins MC, Gulati R (2003) Getting off to a good start: The effects of upper echelon affiliations on underwriter prestige. *Organ. Sci.* 14(3): 244–263.

Hill AD, Upadhyay AD, Beekun RI (2015) Do female and ethnically diverse executives endure inequity in the CEO position or do they benefit from their minority status? An empirical examination. *Strategic Management J.* 36(8): 1115–1134.

Hoobler JM, Lemmon G, Wayne SJ (2014) Women's managerial aspirations: An organizational development perspective. *J. Management* 40(3): 703–730.

Hoobler JM, Wayne SJ, Lemmon G (2009) Bosses' perceptions of family-work conflict and women's promotability: Glass ceiling effects. *Acad. Management J.* 52(5): 939–957.

Huffman ML, Velasco SC (1997) When More is Less: Sex Composition, Organizations, and Earnings in U.S. Firms. *Work Occup.* 24(2): 214–244.

Iacus SM, King G, Porro G (2012) Causal inference without balance checking: Coarsened exact matching. *Polit. Anal.* 20(1): 1–24.

Jaschik S (2007) Should U.S. News make presidents rich? *High. Ed*. Available at: https://webcache.googleusercontent.com/search?q=cache:_I6UZKqdqqgJ:https://www.insidehighered.com/news/2007/03/19/usnews+&cd=1&hl=en&ct=clnk&gl=us [Accessed June 2, 2018].

Jeong S-H, Harrison DA (2017) Glass breaking, strategy making, and value creating: Meta-analytic outcomes of women as CEOs and TMT members. *Acad. Management J.* 60(4): 1219–1252.

Joshi A (2014) By whom and when is women's expertise recognized? The interactive effects of gender and education in science and engineering teams. *Admin. Sci. Quart.* 59(2): 202–239.

Kanter RM (1977) *Men and women of the corporation* (Basic Books, New York). Available at: https://www.hbs.edu/faculty/Pages/item.aspx?num=10807 [Accessed June 2, 2018].

King BG, McDonnell M-H (2015) Good firms, good targets: The relationship among corporate social responsibility, reputation, and activist targeting. K. Tsutsui, A. Lim, eds. *Corp. Soc. Responsib. Glob. World* (Cambridge University Press, Cambridge, MA), 430–454.

King EB, Botsford W, Hebl MR, Kazama S, Dawson JF, Perkins A (2012) Benevolent sexism at work: Gender differences in the distribution of challenging developmental experiences. *J. Management* 38(6): 1835–1866.

King G, Nielsen R (2016) *Why propensity scores should not be used for matching* (Harvard University, Cambridge, MA).

Kovacs B, Sharkey AJ (2014) The paradox of publicity: How awards can negatively affect the evaluation of quality. *Admin. Sci. Quart.* 59(1): 1–33.

Kulich C, Trojanowski G, Ryan MK, Alexander Haslam S, Renneboog LDR (2011) Who gets the carrot and who gets the stick? Evidence of gender disparities in executive remuneration. *Strategic Management J.* 32(3): 301–321.

Lang GE, Lang K (1988) Recognition and renown: The survival of artistic reputation. *Amer. J. Psych.* 94(1): 79–109.

Lee PM, James EH (2007) She'-e-os: Gender effects and investor reactions to the announcements of top executive appointments. *Strategic Management J.* 28(3): 227–241.

Leslie LM, Manchester CF, Dahm PC (2017) Why and when does the gender gap reverse? Diversity goals and the pay premium for high potential women. *Acad. Management J.* 60(2): 402–432.

Levanon A, England P, Allison P (2009) Occupational feminization and pay: Assessing causal dynamics using 1950–2000 U.S. census data. *Soc. Forces* 88(2): 865–891.

Li J, Xia J, Lin Z (2017) Cross-border acquisitions by state-owned firms: How do legitimacy concerns affect the completion and duration of their acquisitions? *Strategic Management J.* 38(9): 1915–1934.

McDonnell M-H, King BG (2013) Keeping up appearances: Reputational threat and impression management after social movement boycotts. *Admin. Sci. Quart.* 58(3): 387–419.

McDonnell M-H, King BG (2018) Order in the court: How firm status and reputation shape the outcomes of employment discrimination suits. *Am. Sociol. Rev.* 83(1): 61–87.

Merton RK (1968) The Matthew Effect in Science: The reward and communication systems of science are considered. *Science* 159(3810): 56–63.

Ostroff C, Atwater LE (2003) Does whom you work with matter? Effects of referent group gender and age composition on managers' compensation. *J. Appl. Psych.* 88(4): 725–740.

Paik Y, Woo H (2017) The effects of corporate venture capital, founder incumbency, and their interaction on entrepreneurial firms' R&D investment strategies. *Organ. Sci.* 28(4): 670–689.

Perretti F, Negro G (2006) Filling empty seats: How status and organizational hierarchies affect exploration versus exploitation in team design. *Acad. Management J.* 49(4): 759–777.

Pfeffer J, Davis-Blake A (1987) Understanding organizational wage structures: A resource dependence approach. *Acad. Management J.* 30(3): 437–455.

Podolny JM (1993) A status-based model of market competition. *Amer. J. Psych.* 98(4): 829–872.

Reskin B, Roos PA (1990) *Job queues, gender queues: Explaining women's inroads into male occupations* (Temple University Press, Philadelphia).

Rhee M, Haunschild PR (2006) The liability of good reputation: A study of product recalls in the U.S. automobile industry. *Organ. Sci.* 17(1): 101–117.

Rider CI, Negro G (2015) Organizational failure and intraprofessional status loss. *Organ. Sci.* 26(3): 633–649.

Rindova VP, Williamson IO, Petkova AP, Sever JM (2005) Being good or being known: An empirical examination of the dimensions, antecedents, and consequences of organizational reputation. *Acad. Management J.* 48(6): 1033–1049.

Rosette AS, Tost LP (2010) Agentic women and communal leadership: How role prescriptions confer advantage to top women leaders. *J. Appl. Psych.* 95(2): 221–235.

Rudman LA, Glick P (1999) Feminized management and backlash toward agentic women: The hidden costs to women of a kinder, gentler image of middle managers. *J. Personality Soc. Psych.* 77(5): 1004–1010.

Schein VE (1973) The relationship between sex role stereotypes and requisite management characteristics. *J. Appl. Psych.* 57(2): 95–100.

Schein VE (1975) Relationships between sex role stereotypes and requisite management characteristics among female managers. *J. Appl. Psych.* 60(3): 340–344.

Schwartz M (2011) *Getting presidential compensation right* (Association of Governing Boards of Universities and Colleges, Washington, D.C.). Available at: https://goo.gl/Q6Trxe [Accessed June 2, 2018].

Shin T (2014) Explaining pay disparities between top executives and nonexecutive employees: A relative bargaining power approach. *Soc. Forces* 92(4): 1339–1372.

Sine WD, Shane S, Di Gregorio D (2003) The halo effect and technology licensing: The influence of institutional prestige on the licensing of university inventions. *Management Sci.* 49(4): 478–496.

Smidts A, Pruyn ATH, Van Riel CBM (2001) The impact of employee communication and perceived external prestige on organizational identification. *Acad. Management J.* 44(5): 1051–1062.

Sorensen E (1994) *Comparable worth: Is it a worthy policy?* (Princeton University Press, Princeton, N.J).

Sorenson O (2014) Status and reputation: Synonyms or separate concepts? *Strateg. Organ.* 12(1): 62–69.

Tosi HL, Werner S, Katz JP, Gomez-Mejia LR (2000) How much does performance matter? A meta-analysis of CEO pay studies. *J. Management* 26(2): 301–339.

Wade JB, Porac JF, Pollock TG, Graffin SD (2006) The burden of celebrity: The impact of CEO certification contests on CEO pay and performance. *Acad. Management J.* 49(4): 643–660.

Weichselbaumer D, Winter- Ebmer R (2005) A meta-analysis of the international gender wage gap. *J. Econ. Surv.* 19(3): 479–511.

Table 1. Balancing Test For Matching

	Treatment Sample (N=1,183)		Matched Sample (N=1,183)		T-test Comparison
Variable	**Mean**	**S.D.**	**Mean**	**S.D.**	***p*-value**
Student Enrollment	8.081	(10.284)	7.590	(9.351)	0.23
Private University	0.776	(0.417)	0.783	(0.412)	0.69
University Status	1.033	(1.226)	0.986	(1.183)	0.36
President Age	57.632	(5.994)	58.016	(5.513)	0.11
President Alma Mater	0.059	(0.235)	0.553	(0.229)	0.72
University Admin Experience	0.665	(0.475)	0.661	(0.473)	0.76
University President Experience	0.206	(0.405)	0.204	(0.403)	0.88
Political Experience	0.046	(0.209)	0.044	(0.205)	0.84
Top Executive and Board Experience	0.046	(0.209)	0.046	(0.209)	1.00
Minority Status	0.107	(0.309)	0.105	(0.307)	0.89
Business Degree	0.033	(0.178)	0.033	(0.178)	1.00
Economics Degree	0.047	(0.211)	0.047	(0.211)	1.00
Law Degree	0.058	(0.234)	0.050	(0.218)	0.41
Applied Sciences Degree	0.130	(0.336)	0.131	(0.338)	0.90
Liberal Arts and Sciences Degree	0.733	(0.442)	0.739	(0.439)	0.74

N = 2,316. Student Enrollment is expressed in 1,000 students.

Table 2. Descriptive Statistics and Correlations for all Treated and Matched Observations

#	Variable Name	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	Total Compensation ($1,000 dollars)	421.14	277.51	39.78	5449.41	1.00																												
2	Student Enrollment (1,000 students)	7.87	9.86	0.11	51.73	0.32	1.00																											
3	Student Enrollment Growth	0.02	0.16	-0.74	2.81	-0.02	-0.02	1.00																										
4	Endowment Growth	0.05	0.12	-0.27	0.61	0.06	0.13	-0.04	1.00																									
5	Carnegie Classification	1.89	0.89	0	3	0.26	0.70	-0.03	0.09	1.00																								
6	Private University	0.78	0.42	0	1	-0.11	-0.79	0.02	-0.11	-0.63	1.00																							
7	Religious University	0.30	0.46	0	1	-0.36	-0.33	-0.01	-0.05	-0.23	0.35	1.00																						
8	Women's University	0.09	0.29	0	1	-0.07	-0.19	0.01	-0.01	-0.25	0.17	-0.08	1.00																					
9	Historically Black University	0.03	0.17	0	1	-0.01	-0.07	-0.03	-0.03	-0.01	0.03	0.01	0.08	1.00																				
10	NCAA Division I Football Program	0.15	0.36	0	1	0.22	0.75	-0.01	0.10	0.52	-0.64	-0.23	-0.13	-0.08	1.00																			
11	Urban Location	0.84	0.36	0	1	0.08	0.16	-0.04	0.02	0.22	-0.08	-0.05	0.12	0.08	0.10	1.00																		
12	Female Presidents (Reference Group)	0.19	0.12	0	1	-0.20	-0.09	0.00	0.01	-0.23	0.09	-0.09	0.22	0.01	-0.06	0.04	1.00																	
13	Status of Former University	1.00	1.21	0	3	0.25	0.01	0.01	0.01	-0.10	0.09	-0.18	0.08	-0.01	0.01	-0.02	0.10	1.00																
14	Status of President's Education	1.67	1.06	0	3	0.19	0.10	0.00	0.03	0.01	-0.06	-0.28	0.07	-0.05	0.01	-0.05	0.10	0.38	1.00															
15	President Tenure	8.76	5.10	1	38	-0.04	-0.14	0.02	0.00	-0.12	0.18	0.13	0.00	-0.02	-0.10	0.01	-0.01	-0.05	-0.02	1.00														
16	President Age	57.86	5.73	36	77	0.24	0.36	-0.02	0.05	0.28	-0.35	-0.16	-0.05	0.06	0.32	0.09	0.00	0.00	0.02	0.23	1.00													
17	University Admin Experience	0.66	0.47	0	1	0.17	0.24	0.00	0.03	0.14	-0.27	-0.14	-0.09	-0.17	0.16	0.03	0.01	0.29	0.27	-0.09	0.06	1.00												
18	University President Experience	0.20	0.40	0	1	0.01	0.09	-0.01	0.03	0.09	-0.04	0.01	-0.02	0.16	0.07	0.01	-0.06	-0.06	0.03	-0.06	-0.03	-0.38	1.00											
19	Political Experience	0.04	0.20	0	1	0.05	-0.03	-0.01	0.00	0.01	0.04	-0.01	-0.05	0.14	-0.01	0.01	-0.05	-0.04	0.06	0.02	0.03	-0.15	-0.11	1.00										
20	Top Executive and Board Experience	0.05	0.21	0	1	-0.08	-0.07	-0.01	0.01	-0.04	0.04	0.02	0.05	0.00	-0.07	-0.04	0.00	-0.11	0.13	0.08	-0.09	-0.14	-0.11	0.10	1.00									
21	Minority Status	0.11	0.31	0	1	0.14	0.09	-0.03	0.00	0.13	-0.09	-0.15	-0.03	0.48	0.07	0.13	-0.03	0.06	0.04	-0.01	0.10	-0.16	0.18	0.22	0.03	1.00								
22	Internal Hire	0.14	0.35	0	1	-0.08	0.15	-0.02	0.02	0.17	-0.16	-0.01	-0.06	-0.07	0.12	0.03	-0.02	-0.28	-0.05	0.09	0.05	0.27	-0.21	-0.08	-0.05	-0.09	1.00							
23	Business Degree	0.03	0.18	0	1	0.01	0.01	0.00	0.01	0.02	-0.05	0.11	-0.06	0.01	-0.05	-0.03	-0.05	-0.09	-0.08	-0.09	-0.05	0.09	-0.09	-0.04	-0.04	-0.04	0.03	1.00						
24	Economics Degree	0.05	0.21	0	1	0.01	-0.07	0.01	0.02	-0.04	0.04	-0.08	0.07	-0.04	0.00	-0.01	0.03	0.05	0.04	-0.07	0.02	0.00	0.00	-0.01	-0.05	-0.08	-0.03	-0.04	1.00					
25	Law Degree	0.05	0.23	0	1	0.03	-0.07	-0.02	-0.04	-0.05	0.04	-0.02	0.07	-0.04	-0.07	-0.05	0.00	0.04	0.04	0.05	-0.02	-0.08	-0.12	0.04	0.38	-0.07	-0.04	-0.04	-0.05	1.00				
26	Applied Sciences Degree	0.13	0.34	0	1	0.21	0.27	-0.02	-0.01	0.28	-0.21	-0.23	-0.09	0.03	0.17	0.01	0.04	0.13	0.15	-0.12	0.08	0.16	-0.05	0.14	-0.07	0.09	-0.02	-0.07	-0.09	-0.09	1.00			
27	Liberal Arts and Sciences Degree	0.73	0.44	0	1	-0.19	-0.14	0.02	0.02	-0.18	0.14	0.18	0.02	0.01	-0.07	0.03	-0.03	-0.11	-0.12	0.13	-0.04	-0.12	0.13	-0.11	-0.10	0.02	0.03	-0.31	-0.37	-0.40	-0.65	1.00		
28	University Status	0.98	1.21	0	3	0.45	0.11	0.01	0.04	-0.10	0.08	-0.30	0.10	-0.09	0.08	-0.08	0.21	0.48	0.38	-0.04	0.13	0.22	-0.04	-0.04	-0.14	0.01	-0.07	-0.14	0.07	0.02	0.21	-0.14	1.00	
29	Female President	0.50	0.50	0	1	-0.07	0.03	0.03	0.01	-0.01	-0.01	-0.15	0.31	0.00	-0.01	0.16	0.21	0.04	-0.06	-0.06	-0.02	0.00	0.01	-0.01	0.00	0.00	-0.04	0.00	0.00	0.02	0.00	-0.01	0.05	1.00

N = 2,316. Correlations larger than |0.07| are significant at $p < 0.05$.

[a] Total compensation is expressed in $1,000 dollars in this table, but is log-transformed in all regression results; [b] Student Enrollment is expressed in 1,000 students.

Table 3. Comparison of Key Variables Between Female and Male Presidents in the Full Sample

Variable	Sample	Female President	Male President
Total Compensation	All Universities	$430,359	$444,416
	High University Status (Top 10 Rank = Yes)	$811,027	$700,193
	Low University Status (Top 10 Rank = No)	$412,211	$434,624
	Selection Year (Tenure = 1)	$357.044	$403.611
	Early Tenure (Tenure <= 3)	$368.168	$410.629
	Later Tenure (Tenure > 3)	$440.620	$448.328
Status of Former University	All Universities	1.03 (quantile)	0.73 (quantile)
Status of President's Education	All Universities	1.61 (quantile)	1.60 (quantile)
President Tenure	All Universities	7 Years	8 Years
President Age	All Universities	58 Years	59 Years
University Admin Experience	All Universities	65%	59%
University President Experience	All Universities	20%	20%
Political Experience	All Universities	4%	8%
Top Executive and Board Experience	All Universities	5%	6%
Minority Status	All Universities	11%	6%
Internal Hire	All Universities	13%	18%

N = 6,631. Comparative statistics are provided for the full sample in order to get a better descriptive overview of the differences across university populations. Percentage terms express the percentage of presidents in the sample that have the described experience/characteristic.

Table 4. Estimation of Total Compensation

	Model 1		Model 2		Model 3	
Variable	***β***	***SE***	***β***	***SE***	***SE***	***β***
Student Enrollment (1,000 students)	0.011**	(0.004)	0.011**	(0.004)	0.011**	(0.003)
Student Enrollment Growth	-0.009	(0.037)	-0.007	(0.037)	-0.010	(0.036)
Endowment Growth	-0.092	(0.068)	-0.094	(0.068)	-0.091	(0.068)
Carnegie Classification	0.145***	(0.030)	0.142***	(0.029)	0.140***	(0.029)
Private University	0.636***	(0.076)	0.630***	(0.075)	0.636***	(0.075)
Religious University	-0.338***	(0.047)	-0.346***	(0.047)	-0.357***	(0.047)
Women's University	-0.114	(0.083)	-0.058	(0.083)	-0.066	(0.083)
Historically Black University	-0.135	(0.118)	-0.121	(0.117)	-0.122	(0.116)
NCAA Division I Football Program	0.192**	(0.075)	0.189*	(0.074)	0.194**	(0.073)
Urban Location	0.098+	(0.054)	0.100+	(0.053)	0.100+	(0.053)
Female Presidents (Reference Group)	-0.210***	(0.063)	-0.195**	(0.063)	-0.193**	(0.063)
Status of Former University	-0.007	(0.013)	-0.004	(0.013)	-0.010	(0.013)
Status of President's Education	0.062***	(0.013)	0.053***	(0.014)	0.053***	(0.014)
President Tenure	0.008***	(0.002)	0.007***	(0.002)	0.007***	(0.002)
President Age	0.005*	(0.002)	0.005*	(0.002)	0.005*	(0.002)
University Admin Experience	0.001	(0.038)	0.004	(0.038)	0.012	(0.037)
University President Experience	0.079*	(0.038)	0.093*	(0.038)	0.088*	(0.038)
Political Experience	-0.006	(0.074)	0.001	(0.074)	-0.010	(0.073)
Top Executive and Board Experience	-0.182**	(0.068)	-0.191**	(0.067)	-0.192**	(0.067)
Minority Status	0.106*	(0.052)	0.109*	(0.052)	0.114*	(0.051)
Internal Hire	-0.041	(0.040)	-0.042	(0.040)	-0.057	(0.040)
Business Degree	0.097	(0.084)	0.130	(0.084)	0.145+	(0.083)
Economics Degree	-0.082	(0.050)	-0.074	(0.050)	-0.067	(0.050)
Law Degree	0.145*	(0.066)	0.159*	(0.065)	0.160*	(0.065)
Applied Sciences Degree	0.060	(0.039)	0.060	(0.039)	0.058	(0.039)
University Status	0.091***	(0.012)	0.093***	(0.012)	0.058***	(0.015)
Hypotheses Testing						
Female President (H1, -)			-0.087**	(0.027)	-0.150***	(0.031)
Female President X University Status (H2, +)					0.067***	(0.017)
Constant	4.448***	(0.225)	4.477***	(0.223)	4.518***	(0.222)
Wald $\chi 2$	980***		991***			1,017***
N	2,316		2,316			2,316

Standard errors in parentheses. Year and state effects are included, but not reported for brevity.

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5. Estimation of Salary

	Model 1		Model 2		Model 3	
Variable	***β***	***SE***	***β***		***β***	***SE***
Student Enrollment (1,000 students)	0.017***	(0.005)	0.018***	(0.005)	0.015**	(0.005)
Student Enrollment Growth	0.348	(0.467)	0.375	(0.466)	0.366	(0.463)
Endowment Growth	0.156	(0.291)	0.126	(0.291)	0.143	(0.289)
Carnegie Classification	0.142**	(0.045)	0.143**	(0.045)	0.147***	(0.044)
Private University	0.342**	(0.119)	0.344**	(0.119)	0.343**	(0.118)
Religious University	-0.478***	(0.069)	-0.510***	(0.070)	-0.546***	(0.070)
Women's University	0.058	(0.104)	0.108	(0.107)	0.057	(0.107)
Historically Black University	-0.001	(0.163)	-0.029	(0.163)	-0.060	(0.162)
NCAA Division I Football Program	-0.171	(0.117)	-0.182	(0.117)	-0.147	(0.117)
Urban Location	-0.194**	(0.072)	-0.193**	(0.072)	-0.192**	(0.071)
Female Presidents (Reference Group)	-0.408*	(0.203)	-0.360+	(0.204)	-0.313	(0.203)
Status of Former University	0.081**	(0.027)	0.083**	(0.027)	0.094***	(0.027)
Status of President's Education	-0.008	(0.029)	-0.013	(0.029)	-0.024	(0.029)
President Tenure	0.018**	(0.006)	0.017**	(0.006)	0.019***	(0.006)
President Age	0.022***	(0.005)	0.022***	(0.005)	0.021***	(0.005)
University Admin Experience	-0.015	(0.082)	-0.010	(0.082)	0.017	(0.082)
University President Experience	0.210*	(0.088)	0.224*	(0.088)	0.230**	(0.088)
Political Experience	0.063	(0.160)	0.069	(0.160)	0.065	(0.159)
Top Executive and Board Experience	-0.406**	(0.129)	-0.396**	(0.129)	-0.347**	(0.129)
Minority Status	0.113	(0.099)	0.119	(0.099)	0.106	(0.098)
Internal Hire	0.113	(0.078)	0.104	(0.078)	0.094	(0.078)
Business Degree	0.452***	(0.110)	0.462***	(0.110)	0.456***	(0.110)
Economics Degree	-0.127	(0.115)	-0.135	(0.115)	-0.173	(0.115)
Law Degree	0.318*	(0.132)	0.315*	(0.132)	0.291*	(0.131)
Applied Sciences Degree	-0.182*	(0.086)	-0.196*	(0.086)	-0.190*	(0.085)
Bonus compensation	0.039**	(0.015)	0.038**	(0.015)	0.041**	(0.015)
University Status	0.137***	(0.029)	0.136***	(0.029)	0.052	(0.037)
Hypotheses Testing						
Female President (H1, -)			-0.114*	(0.054)	-0.290***	(0.073)
Female President X University Status (H2, +)					0.154***	(0.043)
Constant	3.618***	(0.344)	3.675***	(0.345)	3.824***	(0.345)
Wald χ2	409***		417***		435 ***	
N	984		984		984	

Standard errors in parentheses. Year and state effects are included, but not reported for brevity.

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 1 Interactions of Female President and University Status

Bar Graphs of Different University Status Quantiles