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ORIGINAL PAPER

The Ethical Role of Pro-Equality Laws in Reducing Executive Gender Pay Gaps under Cultural Resistance

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Abstract
This study investigates how informal cultural norms and formal pro-equality legislation shape the executive gender pay gap (GPG), and whether legal interventions can ethically substitute for weak cultural support for gender equity. We integrate insights from role congruity theory, institutional theory, and feminist ethics to explain the phenomena. Pro-equality legislation is measured using the World Bank's Women, Business, and the Law (WBL) Index, while gender egalitarianism is derived from the World Values Surveys. We find that executive pay disparities are most pronounced in less gender-egalitarian societies, especially among non-CEO top management team members and in salary-based compensation. Pro-equality laws—particularly those targeting pay rights, asset ownership, and entrepreneurship—significantly reduce these disparities, with the strongest effects observed in countries with lower cultural egalitarianism. These findings suggest that formal legal reforms can act as ethical correctives where informal norms fail, advancing care-based principles of justice and accountability at the highest organizational levels. Our study contributes to feminist ethics by showing how legal structures can institutionalize equity in the face of cultural resistance.

Keywords Gender inequality · Law · National culture

Introduction

The pervasiveness of gender income inequality around the world is an important ethical and socioeconomic problem that many countries are trying to resolve. For example, the World Economic Forum (2022) estimates that, globally women earn on average 37 percent less than men in similar positions. One of those roles that is of interest to management scholars is that of the C-suite, as the top management team develops organizational strategy and oversees its implementation (Krause et al., 2022); yet, females are globally underrepresented among top executives, especially CEOs (e.g., Altrata, 2023). Even though the share of female executives is growing in many countries around the world, they seem to continue to be less compensated in these roles (e.g., Homroy & Mukherjee, 2021). After controlling for job title, firm characteristics, year, industry, and country fixed effects, a substantial gender pay gap (GPG) of 17 percent remains globally among executives (Burns et al., 2025).

Drawing on role congruity theory (Eagly & Karau, 2002), these disparities can be traced to systemic bias arising from the misalignment between gender role expectations and leadership prototypes. Societal expectations regarding women's roles often conflict with stereotypical leadership attributes—such as assertiveness and decisiveness—producing prejudice in the evaluation and compensation of female executives. These biases are particularly entrenched in countries with lower levels of gender egalitarianism, where traditional norms cast women as caregivers and men as breadwinners (Emrich et al., 2004; House et al., 2004). From the perspective of feminist ethics and ethics of care, such cultural configurations reflect not only misrecognition but also systemic moral failure: they delegitimize relational and collaborative

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leadership styles often associated with women and perpetuate unjust hierarchies in how competence and value are evaluated (Gilligan, 1982; Held, 2006; Tronto, 1993). These gaps in moral recognition in low egalitarian contexts intensify the executive gender pay gap and underscore the need for institutional responses that counteract cultural exclusion.

In response, many governments have introduced formal institutional interventions in form of pro-equality laws to address gender-based economic disparities (e.g., Burns et al., 2025; Cruz & Rau, 2022; Homroy & Mukherjee, 2021; Lyons & Zhang, 2023). These reforms aim to enhance women's economic participation by expanding access to resources and career opportunities, increasing organizational demand for female leadership, and improving the transparency and fairness of compensation practices. Yet, while prior research has examined the effects of such laws on gender outcomes, relatively few studies have explored how their impact may depend on underlying cultural norms. While some research suggests that legal and cultural forces shape outcomes independently (Chen et al., 2022), others propose that laws either complement informal norms (Williamson, 2000) or substitute for them, depending on the degree of cultural resistance (Aguilera & Jackson, 2010).

This study integrates insights from role congruity theory, institutional theory, and feminist ethics to explain how cultural norms and legal reforms shape the global executive gender pay gap (GPG). While role congruity theory explains how cultural expectations produce bias in leadership evaluations, institutional theory helps us understand how formal (laws) and informal institutions (norms) interact to shape organizational behavior. Feminist ethics, particularly ethics of care, foregrounds the moral responsibility of institutions to address structural exclusions—highlighting the normative importance of care, fairness, and relational responsibility in compensation practices.

The purpose of this study is to examine how informal cultural norms and formal pro-equality laws each shape executive gender pay disparities, and whether legal interventions complement or ethically substitute for cultural values related to gender equity in different national contexts. We utilize a comprehensive global dataset on executive compensation comprising 14 years (2004–2017). National culture is assessed through gender egalitarianism from the World Values Surveys, which explicitly characterizes cultural gender norms (Emrich et al., 2004; House et al., 2004) and pro-equality legislation is measured using the Women, Business, and the Law (WBL) database of the World Bank.

Our findings confirm a persistent global executive gender pay gap, primarily evident in less egalitarian country contexts. Crucially, we find pro-equality laws significantly narrow these pay gaps, particularly in less gender-egalitarian societies. Laws concerning pay rights, asset ownership, and entrepreneurship rights emerge as especially effective, underscoring their ethical and practical role in substituting for weak informal norms. Our decomposition of the effects shows that these gaps are observable especially in total compensation and salary-based compensation rather than bonuses or equity pay, and prevalent among non-CEO executives. These findings provide empirical support for feminist ethics' normative stance—that formal institutions bear an ethical responsibility to intervene precisely where cultural norms perpetuate inequality (Held, 2006).

This study makes three contributions. First, it empirically demonstrates how pro-equality legislation can serve as an instrument of structural justice, reducing executive gender pay disparities—particularly in contexts where informal cultural support for gender equity is limited. Second, it advances theoretical understanding of the interplay between formal legal interventions and informal cultural norms, showing that laws are not merely policy tools but ethically charged mechanisms that substitute for moral commitments lacking in the cultural domain. Third, by grounding our analysis in feminist ethics and ethics of care, we extend these traditions into the domain of executive compensation—highlighting how institutional structures can embody care-based principles of fairness, inclusion, and moral responsibility. Collectively, these contributions offer a normative framework for understanding gender inequality in leadership and provide ethical guidance for institutional actors committed to promoting justice at the top of organizations.

Theoretical Background

Role Stereotypes and Cultural Barriers to Equitable Executive Pay

While the magnitude of GPG across executive positions varies in the disparate results from different countries (e.g., Gao et al., 2016; Geiler & Renneboog, 2015; Keloharju et al., 2022; Lam et al., 2013; Namwong et al., 2017; Wang et al., 2019; Xiao et al., 2013), overall, research demonstrates that there is a global GPG among executives (e.g., Burns et al., 2025). The presence of a global executive gender pay gap reflects a fundamental ethical violation of fairness and justice principles, as emphasized by feminist ethics and ethics-of-care frameworks (Gilligan, 1982; Tronto, 1993).

Gender pay disparities among executives can be explained through gender stereotypes prevalent in high-status leadership roles. Role congruity theory (Eagly & Karau, 2002) posits that societal expectations of women's roles often conflict with stereotypical leadership attributes such as assertiveness, competitiveness, and decisiveness—commonly referred to as the "think manager–think male" stereotype. These stereotypically masculine leadership prototypes inherently conflict with societal expectations of femininity, which

emphasize communal characteristics such as warmth, relationality, empathy, collaboration, and caregiving. Because women's leadership styles are often perceived as less congruent with these traditionally masculine leadership ideals, female executives frequently encounter skepticism about their competence and suitability for senior roles. This systemic undervaluation, driven by role incongruity biases, directly constrains women's opportunities for career advancement, thereby significantly widening the gender pay gap at executive levels.

Societal gender egalitarianism shapes the executive gender pay gap (GPG) by influencing individual labor market participation, organizational demand for talent, and compensation practices. In low egalitarian societies, compensation systems tend to lack transparency and rely more heavily on informal networks and subjective judgments, which heighten bias (Horak & Suseno, 2023; Koburtay et al., 2020). Empirical evidence confirms that the inclusion of cultural norms significantly improves the explanatory power of GPG models beyond traditional human capital and firm-level factors (Burns et al., 2025).

Consistent with role congruity theory (Eagly & Karau, 2002), societies with more traditional gender norms exhibit greater perceived incongruity between women and leadership, which constrains women's advancement and compresses their compensation (Chen et al., 2022; Fortin, 2005). In contrast, high-egalitarian cultures legitimize diverse leadership styles and encourage more equitable compensation practices. From an ethics-of-care perspective, cultural contexts that value relationality and inclusive leadership further strengthen women's moral and organizational legitimacy, narrowing pay disparities (Gilligan, 1982; Qin et al., 2025; Tronto, 1993). Consequently, we hypothesize:

Hypothesis 1: *The executive gender pay gap is larger in countries with lower levels of gender egalitarianism than in those with higher levels.*

Pro-Equality Laws as Ethical and Institutional Correctives

Pro-equality legislation can correct systemic discrimination. From the perspective of feminist ethics, these laws operationalize collective obligations of care, embedding principles of justice and fairness into organizational practices (Held, 2006; Pullen & Vachhani, 2021; Tronto, 1993). Such laws fulfill the collective moral responsibility to rectify gender inequities, institutionalizing ethical practices of care and fairness. Thus, the effectiveness of pro-equality legislation in reducing the executive gender pay gap underscores an essential ethical duty to structurally enforce justice.

Building on this, we draw from institutional theory to further clarify the mechanisms through which pro-equality legislation operates. Institutions are commonly understood as comprising both formal structures—such as laws, regulations, and policies—and informal cultural norms, including social expectations and value systems (Aguilera & Jackson, 2010; Williamson, 2000). We conceptualize pro-equality legislation as a formal institutional mechanism, while gender egalitarianism captures informal cultural norms related to gender roles. In contexts where informal norms continue to reinforce traditional gender hierarchies, formal laws can function as correctives that promote behavioral change and institutionalize gender equity standards. Drawing on coercive isomorphism (DiMaggio & Powell, 1983), we argue that legal mandates can compel organizations to adopt gender-equitable practices. Therefore, pro-equality legislation constitutes vital ethical infrastructure in narrowing executive gender pay disparities.

There is evidence that formal institutions have been able to reduce the GPG through the introduction of pro-equality laws and policies. In the global context, Sever (2023) finds evidence that legal gender equality (as measured by the *WBL Index*) can help countries bridge the gender gap in labor force participation, whereby the adoption of pro-equality laws translates into a larger share of women in the workforce. Homroy & Mukherjee, 2021 provide evidence across 18 countries that board gender quotas are associated with a lower GPG for experienced female executives in the highest age bracket. The authors also report that family policies were associated with lower GPG for the youngest female executives.

Pay disclosure mandates can also reduce the GPG (Brown et al., 2022; Cullen, 2024). For example, Chile's 2009 Equal Pay for Equal Work Law (EPL) includes a disclosure requirement about wage-settings and promotional procedures for firms with 200 or more workers (Cruz & Rau, 2022). The authors report that EPL reduced the firm premium gender gap by 6.1%, driven by the bargaining power channel. The effects were larger in firms exposed to higher penalties and disclosure requirements. Bennedsen et al. (2022) show that legislation in Denmark, which required firms to provide gender disaggregated wage statistics, reduced the average GPG by two percentage points. However, the reduction was due primarily to the slower post-legislation growth in male-employee compensation. Lyons and Zhang (2023) document that a policy enacted in one Canadian province that required salary disclosure through a publicly searchable database improved gender pay equality, particularly in the most visible organizations.

Taken together, these ethical and institutional mechanisms suggest that pro-equality legislation serves as a vital tool for embedding principles of fairness and justice into organizational practices—particularly in addressing structural barriers to gender pay equity. Therefore, we hypothesize:

Hypothesis 2: *The introduction of pro-equality laws is positively associated with the reduction of the executive gender pay gap.*

Pro-Equality Laws as Formal Correctives to Cultural Inequality

Institutional theory emphasizes that organizational behavior is shaped by the interplay of formal rules and informal cultural norms. We argue that when informal norms fail to support gender equity, formal legal interventions become not only operational tools but ethically necessary correctives. From a feminist ethics perspective, these interventions fulfill a collective moral obligation to address structural injustice (Demuijnck, 2009; Held, 2006). Given the cultural persistence of gendered norms (Alesina et al., 2013; Bisin & Verdier, 2000; Gao et al., 2016), relying solely on informal cultural evolution may be inadequate. Instead, formal laws may act as ethical substitutes that compensate for deficits in normative commitment to gender equity, particularly in organizational systems where cultural expectations continue to perpetuate inequality.

Empirical evidence from societies characterized by deeply entrenched gender inequity supports the necessity of substitution via legislative interventions. For instance, in Saudi Arabia, deeply embedded patriarchal and tribal traditions significantly restrict women's leadership pathways, requiring governmental intervention ("Vision 2030") despite societal resistance (Aldossari & Calvard, 2022). Similarly, in South Korea, patriarchal Confucian norms and exclusionary networks (yongo) perpetuate gender disparities, prompting proactive gender equality initiatives by multinational corporations, despite limited societal acceptance (Horak & Suseno, 2023).

Therefore, formal legal structures become ethically necessary precisely where informal norms fail, acting as critical ethical substitutes by institutionalizing fairness and justice through enforced transparency, accountability, and relational responsibility (Held, 2006). Legislative actions, such as gender quotas and transparency mandates, have been argued to be particularly critical for advancing gender equity precisely where cultural shifts lag behind women's expanding capabilities (Terjesen et al., 2015). Where informal norms fail to uphold gender equity, formal laws bear the ethical obligation to substitute for inadequate cultural support, explicitly addressing structural inequities.

A theoretical caveat remains: While prior research has shown that cultural norms influence the evolution and adoption of laws supporting women's economic participation (Malaquias et al., 2022), the effectiveness of such laws in reducing gender pay disparities likely depends on the prevailing level of societal egalitarianism (Chen et al., 2022; Hyland et al., 2020). In contexts characterized by deeply entrenched gender norms, formal legislative actions may result in only superficial or symbolic compliance, without meaningful cultural or organizational change (Bonet et al., 2020; Dobbin & Kalev, 2017; Meyer & Rowan, 1977). At the same time, the introduction of such legislation may heighten the visibility of discrimination and exert its strongest effects precisely where inequality is most pronounced.

Our study contributes to this theoretical debate by empirically testing whether formal legal interventions function as complements to or substitutes for informal cultural norms in shaping gender pay outcomes. Grounded in feminist ethics, we theorize a substitution effect—arguing that formal pro-equality laws carry greater ethical urgency and may generate stronger practical outcomes in societies with lower levels of gender egalitarianism. Thus, we argue that where cultural support for gender equity is weak, formal laws can function as enforceable ethical infrastructure that create the conditions for more responsive, inclusive organizational cultures and practices, supporting gender equity where cultural norms fall short. Thus, we hypothesize:

Hypothesis 3: *Pro-equality laws are more effective in reducing the executive gender pay gaps in countries lower in gender egalitarianism than in those higher in gender egalitarianism.*

In conclusion, we contend that pro-equality laws are most impactful—ethically and operationally—when they substitute for absent or resistant cultural norms, offering a formal route to more inclusive and gender-equitable compensation practices.

Data and Measures

In this section, we describe our data and variable construction. Variable definitions are presented in Online Appendix A.

Sample Construction

We obtain data on firm characteristics, stock market, and executive compensation for publicly listed companies around the world from the Standard & Poor's Capital IQ database for the period between 2004 and 2017. We assign executives to the country of the firm's headquarters, since the legal environment of the headquarters shapes compensation practices.[1] Executive gender is identified from prefixes and pronouns in Capital IQ biographies. We classify an executive as female if the biography contains any of the following indicators: "Ms.," "Mrs.," "she," or "her." We remove the countries without any female executives. To have a meaningful number of observations for each country, we exclude countries with less than 100 executive-year observations. We also require that the following variables, which are essential for our empirical analysis are non-missing: total executive compensation and salary and our measures of pro-equality legislation and cultural gender egalitarianism, described in the next section. Our final sample includes 355,197 executive-year observations with 16,907 unique firms from 26 countries. Online Appendix B presents the distribution of our sample by country.

Key Measures

Pro-equality legislation. We collect time-varying information on legal treatment of women from the World Bank WBL database,[2] which focuses on legislation with differences on access to economic opportunities between men and women. The *WBL Index* is the only global high-quality comparative gender-related law index, which makes the level of legislation comparable across countries, allowing us to empirically analyze how legislation affects GPG. WBL is constructed based on a questionnaire sent out to an international network of over 2,000 respondents, who are experts in various aspects of law. Expert answers on 35 individual legislative issues are then aggregated into eight indicators (see Online Appendix A for definitions): (1) mobility rights; (2) pay rights; (3) parenthood rights; (4) assets rights; (5) workplace rights; (6) marriage rights; (7) entrepreneurship rights; and (8) pension rights. The indicator-level scores are obtained by calculating the unweighted average of the four or five binary questions within that indicator and scaling the result to 100. Our main explanatory variable is the overall *WBL Index*, which is calculated by taking an unweighted average of the eight indicators, with 100 representing the highest possible score. We also study the eight indicators separately.

National gender norms. We measure national egalitarian gender norms (*Gender Egalitarianism*) using the World Value Surveys (WVS).[3] Specifically, our country-level data are based on 106,932 individual survey responses in 26 countries across 67 WVS collections from 2004 to 2017 (on average 2.58 survey collection waves in each country). Our first measure, *WVS 7Q*, follows from the literature (e.g., Guiso et al., 2008; McLean et al., 2023) and is defined as the average country-level index based on individual responses to seven questions concerning perceptions about women's role in the society.[4] Our second measure, *Welzel*, which is a subindex in the Emancipative values index (EVI; e.g., Brieger et al., 2019), also captures whether the local social norms foster equality and is based on a subset of the items in our first measure (Welzel, 2013).[5] In our empirical analysis, we divide our sample into two subsamples by the median value of *WVS 7Q* or *Welzel* (see, e.g., Tsolmon, 2024).[6]

Executive compensation. Total Pay denotes the total executive compensation, i.e., the sum of salary, bonuses, restricted stock and option grants, long-term incentive plans, pension contributions, and all other compensation measured in 2009 US dollars. The average total executive compensation is $984,650, which is comparable with that reported in related studies, e.g., $1.09 million in Correa and Lel (2016). Table 1 presents the summary statistics for our full sample. In Panel A, we present the compensation variable and executive characteristics used in our empirical analysis. Note also

[1] It is plausible that some executives in our sample reside in countries other than where the firm's headquarters are located, and that their compensation contracts are shaped by the laws or cultural norms of their country of residence. Such cases would likely bias our estimates toward finding weaker relationships, rendering our current results conservative.

[2] The WBL database is publicly available at https://wbl.worldbank.org/en/wbl-data (Worldbank, 2023).

[3] The database is available at https://www.worldvaluessurvey.org/wvs.jsp (see also Haerpfer et al., 2022).

[4] See the Online Appendix A for the details of the construction of *WVS 7Q* index.

[5] For further information on the construction of the index, see https://www.worldvaluessurvey.org/WVSContents.jsp?CMSID=welzelidx&CMSID=welzelidx

[6] In unreported analyses, we also use the following measures of gender egalitarianism: Schwartz (2008) Egalitarianism index, and the EGAL PRACTICE index based on the Global Leadership, and Organizational Behavior Effectiveness Research (GLOBE) survey on respondents' views of their country's practices regarding gender egalitarianism (*as is* vs. "should be"). The EGAL PRACTICE index measures the extent to which an organization or a society minimizes gender role differences and gender discrimination. See https://globeproject.com/data/GLOBE-Dimensions-Definitions-and-Scale-Items.pdf The results remain similar in all analyses: the effect of pro-equal legislation is significant in low egalitarian countries and among non-CEO executives. This is not surprising, as all these indices measure the degree to which a collective minimizes gender inequality (House et al., 2004; Maleki & de Jong, 2014).

Table 1 Descriptive statistics. This table provides descriptive statistics on all the variables that we use in our empirical analysis. Panel A reports statistics on executive characteristics, Panel B on firm characteristics and Panel C on country characteristics

Panel A: Executive Level	Obs	Mean	Median	Std. Dev
Total Pay ($000)	355,197	984.650	453.298	1,465.443
Salary ($000)	355,197	336.492	270.474	275.596
Bonus ($000)	355,197	114.114	0.000	294.050
Equity Pay ($000)	355,197	268.537	0.000	721.348
Female	355,197	0.072	0.000	0.259
CEO	355,197	0.379	0.000	0.485
CFO	355,197	0.228	0.000	0.420
COO	355,197	0.137	0.000	0.344
Executive Age	355,197	51.888	50.000	7.908
Executive Graduate Degree	355,197	0.235	0.000	0.424
Executive Tenure	355,197	6.046	5.000	3.670
Executive Ability	355,197	0.081	−0.331	0.906
Panel B: Firm/Industry Level				
Sales Growth	101,056	0.134	0.052	0.458
ROA	101,056	0.092	0.101	0.181
Book Leverage	101,056	0.222	0.184	0.209
Tangible Assets	101,056	0.268	0.192	0.244
Cash Holdings	101,056	0.166	0.094	0.190
Capex	101,056	0.054	0.030	0.070
Stock Return	101,056	0.194	0.059	0.751
Stock Return Volatility	101,056	0.490	0.422	0.281
Firm Size	101,056	4.988	0.268	34.142
Market-to-Book Ratio	101,056	2.361	1.569	3.636
Institutional Ownership	101,056	0.110	0.057	0.133
Insider Ownership	101,056	0.110	0.016	0.177
Number of Executives	101,056	4.125	4.000	2.211
CEO-Chairman Duality	101,056	0.580	1.000	0.493
Industry Female Percentage	988	8.743	8.280	4.215
Panel C: Country Level				
WBL Index	342	81.581	85.625	17.005
WVS 7Q	342	0.625	0.631	0.049
Welzel	342	0.664	0.729	0.150
GDP per Capita ($000)	342	33,830.420	36,741.800	22,869.110
GDP Growth	342	0.030	0.026	0.028
Labor Force Female Percentage	342	42.652	45.697	7.534
Life Expectancy	342	78.002	80.348	5.819
Ln(Population)	342	17.213	17.357	1.745
Trade-to-GDP Ratio	342	89.185	66.470	69.407
Unemployment Rate	342	7.637	5.865	5.360

Definitions of all variables are provided in online appendix A

that all unbounded variables are winsorized at the 1 st and 99th percentiles. According to the mean values, salary and bonus account for 46 percent of *Total Pay*, while equity-based pay, which consists of restricted stock and option grants, accounts for 27 percent of *Total Pay*. The remaining compensation includes long-term incentive plans, changes in pension, and all other compensation. In Panels B and C, we present the summary statistics for the firm, industry, and country characteristics used in our empirical analysis.

Key Analysis and Findings

Our empirical analyses are comprised of the following steps. First, we examine whether local gender norms, as measured by the *WVS 7Q or Welzel* index, generally influence the pay gap between male and female executives. Second, we examine whether a nation's pro-equality laws, as measured by the *WBL index*, are mitigating in the pay gap between male and female executives. As our main contribution, we then examine if pro-equality laws affect female executive pay differently across countries, depending on level of egalitarianism.

Baseline Results: Cultural Gender Norms and Executive Gender Pay Gap

We begin our empirical analysis by studying how the pay gap between men and women in executive positions is affected by the underlying gender-related national norms using the following equation:

$$Ln(ExecutivePay)_{k,i,c,t} = \alpha + \beta_1 Female \times GenderEgalitarianism_{c,t-1} + \beta_2 Female + \beta_3 GenderEgalitarianism_{c,t-1} + \gamma X_{k,i(c),t-1} + \int_{k,i,c,t} \quad (1)$$

where the dependent variable is the natural logarithm of total pay for executive k, firm i, country c, and year t. Our key variables of interest are $GenderEgalitarianism_{c,t-1}$ and its interaction with *Female*, a dummy variable that equals 1 if the employee is female and zero otherwise. The set of variables that we control for $X_{k,i(c),t-1}$ follows largely from the recent literature (e.g., Chen et al., 2022; McLean et al., 2023; Onal et al., 2022) and consists of an extensive list of executive, firm, industry, and country characteristics that may influence the GPG in a firm's executive suite, namely: executive age; graduate degree; general ability; tenure with the current firm; (lagged) total pay; firm return on assets; book leverage; asset tangibility; cash holdings; capital expenditures; stock return volatility; firm size; market-to-book ratio; number of executive positions in the firm; CEO–chair(wo)man duality; institutional ownership; insider ownership; percentage of female executives in the firm's two-digit SIC industry;[7] GDP per capita; and GDP growth.[8] All independent variables are lagged by one year relative to the dependent variable.

Following Adams (2016), we also include several fixed effects to mitigate omitted variable bias. Firm fixed effects account for unobservable, time-invariant characteristics such as corporate culture[9]; title fixed effects capture stable differences across job roles; and year fixed effects absorb global shocks affecting all firms. In addition, country-specific time trends account for long-run developments unique to each country that could jointly affect the WBL index and gender pay gap. Together, these controls help ensure that our estimates are not confounded by persistent heterogeneity or common temporal shocks. All in all, we estimate how compensation changes for women and men are affected by cultural gender norms, holding other things constant.

Table 2 presents our baseline results on the relationship between executive pay and *Gender Egalitarianism*, proxied by *WVS 7Q* and *Welzel* indices. In column (1), we document that the average female executive is paid 14.6 percent less than the average male executive at the 1% significance level, controlling for unobservable and time-invariant firm, year, and country characteristics and clustering standard errors by firm. This estimate is similar in magnitude to that (16.6 percent) reported by Burns et al. (2025). Our estimate for the GPG shrinks to 8.7 percent (with a p-value less than 0.001) in column (2), where we additionally control for an extensive set of observable differences between male and female executives such as education, tenure, and general ability, and observable time-varying firm, industry, and country characteristics.

Next, we focus on whether and how cultural gender norms influence the GPG across countries and find strong support for Hypothesis 1. In column (3), we find that our estimate for the coefficient of $Female \times WVS7Q$ is positive and statistically significant at the 1% level. We find a similar result in column (4) where we use the *Welzel* index to measure gender egalitarianism. In columns (5) and (6), we further confirm the robustness of this evidence to the clustering of standard errors by country. The linear association between GPG and *Gender Egalitarianism* is economically

[7] We define this variable as *Industry Female Percentage* and introduce it along with its interaction with *Female* in our multivariate regressions as control variables to ensure that our results are not simply an artifact that the industries, where female employees have greater presence, plausibly respond differently to the underlying cultural norms, pro-equality laws or both. Adams and Kirchmaier (2016), for example, document that women are particularly underrepresented in finance and STEM sectors, and that firms in these industries also have a significantly lower share of female board members. Underrepresentation of women in such industries may also shape appointment of female executives and their pay relative to male executives differently across countries. We therefore include *Industry Female Percentage* and its interaction with *Female* to rule out this potential alternative explanation.

[8] See Online Appendix A for detailed variable definitions.

[9] No firm in our sample changes its country location. Thus, firm fixed effects absorb country fixed effects, i.e., any unobserved and time-invariant country characteristic. Note also that some of our variables of interest such as *WBL Index* and measures of gender egalitarianism are country-year variables. Therefore, we are unable to include country-times-year fixed effects to control for unobserved country-year characteristics. However, to account for the possibility of any spurious time-series correlation between GPG and *WBL Index*, we control for country-specific time trends.

Table 2 Cultural gender norms and gender pay gap in the C-suite. This table reports the results on how cultural norms on gender roles affect the compensation gap between male and female executives. The dependent variable in all columns is the natural logarithm of total compensation. *Female* is a dummy variable that equals one if the gender of the executive is identified as female. To measure gender egalitarianism, we use the *WVS 7Q* (*Welzel*) index, which is defined as the average country-level index based on individual responses to seven (three) questions concerning perceptions about women's role in the society in the World Values Survey.

Dependent Variable:	*Ln(Total Pay)*					
Measure of *Gender Egalitarianism*:			*WVS 7Q*	*Welzel*	*WVS 7Q*	*Welzel*
	(1)	(2)	(3)	(4)	(5)	(6)
Female	−0.146***	−0.087***	−0.474***	−0.302***	−0.474*	−0.302***
	(0.008)	(0.014)	(0.129)	(0.043)	(0.253)	(0.051)
Female×*Gender Egalitarianism*			0.623***	0.307***	0.623*	0.307***
			(0.203)	(0.053)	(0.388)	(0.099)
Gender Egalitarianism			−0.233	−0.287	−0.233	−0.287
			(0.270)	(0.210)	(0.328)	(0.629)
Sales Growth		0.032***	0.032***	0.033***	0.032***	0.033***
		(0.005)	(0.005)	(0.005)	(0.009)	(0.009)
ROA		0.022	0.022	0.023	0.022	0.023
		(0.016)	(0.016)	(0.016)	(0.030)	(0.030)
Leverage		−0.050***	−0.050***	−0.050***	−0.050	−0.050
		(0.015)	(0.015)	(0.015)	(0.034)	(0.033)
Tangible Assets		−0.035	−0.034	−0.034	−0.034	−0.034
		(0.023)	(0.023)	(0.023)	(0.027)	(0.028)
Cash Holdings		0.004	0.004	0.004	0.004	0.004
		(0.017)	(0.017)	(0.017)	(0.021)	(0.021)
Capex		−0.082**	−0.084**	−0.082**	−0.084	−0.082
		(0.035)	(0.035)	(0.035)	(0.114)	(0.114)
Stock Return		0.042***	0.042***	0.042***	0.042***	0.042***
		(0.002)	(0.002)	(0.002)	(0.007)	(0.007)
Stock Return Volatility		−0.037***	−0.038***	−0.037***	−0.038***	−0.037***
		(0.010)	(0.010)	(0.010)	(0.011)	(0.011)
Firm Size		0.156***	0.156***	0.156***	0.156***	0.156***
		(0.005)	(0.005)	(0.005)	(0.009)	(0.009)
Market-to-Book Ratio		0.002***	0.002***	0.002***	0.002***	0.002***
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Institutional Ownership		0.020	0.020	0.020	0.020	0.020
		(0.023)	(0.023)	(0.023)	(0.018)	(0.019)
Insider Ownership		−0.046**	−0.043**	−0.046**	−0.043	−0.046
		(0.019)	(0.019)	(0.019)	(0.050)	(0.052)
Number of Executives		−0.022***	−0.022***	−0.022***	−0.022***	−0.022***
		(0.001)	(0.001)	(0.001)	(0.003)	(0.003)
Industry Female Percentage		−0.000	−0.000	−0.000	−0.000	−0.000
		(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
Female×*Industry Female Percentage*		0.003**	0.003**	0.003**	0.003	0.003
		(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
CEO-Chairman Duality		−0.021***	−0.021***	−0.021***	−0.021**	−0.021**
		(0.007)	(0.007)	(0.007)	(0.008)	(0.008)
CEO Dummy		0.212***	0.212***	0.212***	0.212***	0.212***
		(0.005)	(0.005)	(0.005)	(0.026)	(0.025)
Executive Age		−0.000	−0.000	−0.000	−0.000	−0.000
		(0.000)	(0.000)	(0.000)	(0.001)	(0.001)
Executive Graduate Degree		0.026***	0.026***	0.026***	0.026***	0.026***
		(0.003)	(0.003)	(0.003)	(0.005)	(0.005)

Table 2 (continued)

Dependent Variable:	*Ln(Total Pay)*					
Measure of *Gender Egalitarianism*:			*WVS 7Q*	*Welzel*	*WVS 7Q*	*Welzel*
Executive Tenure		0.015***	0.015***	0.015***	0.015***	0.015***
		(0.001)	(0.001)	(0.001)	(0.003)	(0.003)
Executive Ability		0.006***	0.006***	0.006***	0.006	0.006
		(0.002)	(0.002)	(0.002)	(0.007)	(0.007)
Lagged Ln(Total Pay)		0.469***	0.469***	0.469***	0.469***	0.469***
		(0.006)	(0.006)	(0.006)	(0.033)	(0.033)
Ln(GDP per Capita)		0.160***	0.164***	0.155***	0.164***	0.155***
		(0.017)	(0.017)	(0.018)	(0.053)	(0.054)
GDP Growth		0.012	0.003	0.015	0.003	0.015
		(0.142)	(0.144)	(0.143)	(0.485)	(0.476)
Title Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Country Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Standard Error Clustered by	Firm	Firm	Firm	Firm	Country	Country
Observations	355,197	355,197	355,197	355,197	355,197	355,197
Adjusted R-squared	0.814	0.871	0.871	0.871	0.871	0.871

Variable definitions are provided in Online Appendix A. In all columns, we include executive title, year and firm fixed effects and country time trends. Robust standard errors clustered at the firm level in columns (1)-(4) and at the country level in columns (5)-(6) are reported in parenthesis. ∗, ∗ ∗, and ∗ ∗ ∗ indicate 10%, 5%, and 1% statistical significance, respectively

meaningful: e.g., in column (3), a one-standard-deviation increase in *WVS7Q* (approximately 0.05), is associated with a three percentage points lower pay gap between male and female executives. This finding indicates that gender pay gap is inherently linked to the underlying cultural norms for top managers.

Pro-Equality Laws and Executive Gender Pay Gap

To test Hypothesis 2, we examine how the pay gap between men and women in executive positions is affected by the pro-equality laws using the equation:

$$Ln(ExecutivePay)_{k,i,c,t} = \alpha + \beta_1 Female \times WBLIndex_{c,t-1} + \beta_2 Female + \beta_3 WBLIndex_{c,t-1} + \gamma X_{k,i(c),t-1} + \int_{k,i,c,t} \quad (2)$$

where the dependent variable is the natural logarithm of total pay for executive k, firm i, country c, and year t. Our key variables of interest are $WBLIndex_{c,t-1}$ and its interaction with *Female*.

Table 3 presents our findings on the relationship between the total pay gap between male and female executives and *WBL Index*. In all columns, we control for firm, year, and title fixed effects and country time trends. In columns (2) and (4), control variables include the same time-varying executive, firm, industry, and country characteristics as Table 2. In columns (1) and (2), standard errors are clustered by firm and, in columns (3) and (4), by country.

Consistent with Hypothesis 2, we find that our estimates for the coefficient of *Female* × *WBLIndex* are positive and statistically significant regardless of the specification. The relationship between GPG and *WBL Index* is also economically significant: e.g., in column (2), a one-standard-deviation increase in *WBL Index* (approximately 0.17), is associated with a 4.4 percentage points lower pay gap between male and female executives. This finding is important, as it shows that pro-equality laws do indeed reduce gender pay gaps around the world.

Pro-Equality Laws and Executive Gender Pay Gap Conditional on Cultural Gender Norms

Our main research interest is to explore whether and how gender laws affect the GPG among executives in countries with different levels of gender egalitarianism. To that end, this section presents our multivariate analyses for the subsamples of high and low egalitarian countries, based on *WVS 7Q* and *Welzel* indices.

Table 3 Pro-equality laws and gender pay gap in the C-suite. This table reports the results on how pro-equality laws affect the compensation gap between male and female executives

Dependent Variable:	*Ln(Total Pay)*			
	(1)	(2)	(3)	(4)
Female	−0.410***	−0.302***	−0.410**	−0.302***
	(0.090)	(0.054)	(0.185)	(0.076)
Female × *WBL Index*	0.315***	0.259***	0.315*	0.259**
	(0.104)	(0.059)	(0.187)	(0.116)
WBL Index	−1.467***	−0.494***	−1.467**	−0.494***
	(0.122)	(0.079)	(0.535)	(0.123)
Control variables	No	Yes	No	Yes
Title fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Country time trends	Yes	Yes	Yes	Yes
Standard error clustered by	Firm	Firm	Country	Country
Observations	355,197	355,197	355,197	355,197
Adjusted R-squared	0.815	0.871	0.815	0.871

The dependent variable in all columns is the natural logarithm of total compensation. *Female* is a dummy variable that equals one if the gender of the executive is identified as female. *WBL Index* is an unweighted average of the eight legislation indicators on a scale of 0 to 1, provided by the World Bank's WBL database. Variable definitions are provided in Online Appendix A. In all columns, we include executive title, year and firm fixed effects and country time trends. In columns (2) and (4), we also include the control variables from Table 2. Robust standard errors clustered at the firm level in columns (1)-(2) and at the country level in columns (3)-(4) are reported in parenthesis. ∗, ∗ ∗, and ∗ ∗ ∗ indicate 10%, 5%, and 1% statistical significance, respectively

We report the results in Table 4. Our focus is once again on the coefficient of the interaction between *Female* and *WBL Index*. We find that the coefficient estimate for the interaction term is significantly positive (with a *p*-value less than 0.001) only for the countries with low egalitarianism (regardless of the egalitarianism measure used to create the subsamples). We also document that the difference between the coefficients of *Female* × *WBLIndex* for low and high gender-egalitarian countries is statistically significant with *p*-value equals 0.005 (0.023) using *WVS 7Q* (*Welzel*).[10] In other words, consistent with Hypothesis 3, pro-equality laws, when implemented in less egalitarian cultures, are effective in reducing GPG among executives in those nations. For more egalitarian countries, the GPG does not seem to be as responsive to the legislative actions.

In summary, our results indicate that the effectiveness of pro-equality laws in reducing the gender pay gap is shaped by cultural context. Specifically, pro-equality legislation is associated with a lower GPG primarily in countries with a low egalitarian (i.e., male dominant) culture. As documented in Table 2, pay inequality between male and female executives is more severe in those societies to begin with. Thus, pro-equality laws are most effective in the societies that need them the most, thereby functioning as substitutes for egalitarian societal norms, which is in line with Hypothesis 3.

Heckman Two-Stage Estimation

In this subsection, we explore the possibility that the self-selection of some countries into adopting a higher WBL is creating an endogeneity bias, which may be driving the relationship between pro-equality laws and GPG. To address this concern, we employ the Heckman two-stage estimation approach. As an instrument, we exploit the European Union (EU) membership of the respective countries in our sample. The relevance criterion for an instrument is satisfied here because legislative interventions toward greater gender equality are more likely to arise if a country is a member of

[10] In Online Appendix C Table C1, we also estimate full-sample specifications with interaction terms *Female* × *WBL Index* × *Low EGAL* and *Female* × *WBL Index* × *High EGAL*, where *High* (*Low*) *EGAL* is a dummy variable that equals one if the country-level gender egalitarianism is above (below) the sample median. We find that the coefficient of the former interaction representing the influence of pro-equality laws on GPG for the less egalitarian countries is significantly positive (*p-value* < 0.001) while that for the more egalitarian countries is not. The difference between the two coefficients is also statistically significant (*p-value* = 0.008 using *WVS 7Q* and *p-value* = 0.030 using *Welzel* as the measure of gender egalitarianism). Thus, our inferences based on these results are qualitatively similar to those based on the subsample results in Table 4.

Table 4 Pro-equality laws and gender pay gap in the C-suite – conditional on cultural gender norms/egalitarianism. This table reports the results on how pro-equality laws affect the compensation gap between male and female executives conditional on cultural norms on gender roles

Dependent Variable:	*Ln(Total pay)*			
Measure of *gender egalitarianism*:	*WVS 7Q*		*Welzel*	
Degree of *gender egalitarianism*:	Low	High	Low	High
	(1)	(2)	(3)	(4)
Female	−0.430***	−0.188*	−0.393***	−0.212*
	(0.074)	(0.111)	(0.069)	(0.114)
Female × *WBL Index* (***β***)	0.457***	0.076	0.399***	0.105
	(0.086)	(0.121)	(0.080)	(0.123)
WBL Index	−0.685***	−0.313***	−0.560***	−0.241**
	(0.172)	(0.103)	(0.141)	(0.110)
Control variables	Yes	Yes	Yes	Yes
Title fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Country time trends	Yes	Yes	Yes	Yes
H_0: $\beta_{Low}=\beta_{High}$ *[p-value]*	[0.005]		[0.023]	
Observations	224,387	130,810	256,042	99,155
Adjusted R-squared	0.896	0.785	0.887	0.791

The dependent variable in all columns is the natural logarithm of total compensation. *Female* is a dummy variable that equals one if the gender of the executive is identified as female. *WBL Index* is an unweighted average of the eight legislation indicators on a scale of 0 to 1, provided by the World Bank's WBL database. To measure gender egalitarianism, we use the *WVS 7Q* (*Welzel*) index, which is defined as the average country-level index based on individual responses to seven (three) questions concerning perceptions about women's role in the society in the World Values Survey. Variable definitions are provided in Online Appendix A. In all columns, we include the control variables from Table 2, year, executive title, and firm fixed effects, and country time trends. Robust standard errors clustered at the firm level are reported in parenthesis. ∗, ∗ ∗, and ∗ ∗ ∗ indicate 10%, 5%, and 1% statistical significance, respectively

the EU (*EU Member*) regardless of the local gender norms.[11] Arguably, the exclusivity criterion of *EU Member* dummy as an instrument is also satisfied as EU membership can affect GPG exclusively through regulations and directives. We run the following regression as our first-stage specification and employ an Inverse Mills Ratio to account for the varying propensity of the introduction of pro-equality laws across the countries in our sample:

$$HighWBLIndex_{c,t} = \alpha + \beta_1 EUMember_{c,t-1} + \gamma Z_{c,t-1} + \int_{c,t} \quad (3)$$

where the dependent variable is the *High WBL Index*$_{c,t}$, which is a dummy variable that equals one if the given country's *WBL Index* is above the sample median and zero otherwise. The main independent variable to satisfy the exclusion criteria is *EU Member*, which is a dummy variable that equals 1 if the given country is a member of the European Union and 0 otherwise. The matrix $\boldsymbol{Z_{c,t-1}}$ contains the other country-level control variables that include GDP per capita [*Ln(GDP per Capita)*], percentage of the labor force that is female (*Labor Force Female Percentage*), life expectancy at birth (*Life Expectancy*), log value of the total population of the country during that year [*Ln(Population)*], total trade scaled by the GDP (*Trade-to-GDP Ratio*), and the level of unemployment in the country (*Unemployment Rate*). Country time trends and year fixed effects are also included.

The results reported in Panel A Table 5 satisfy the relevance condition and validate the use of EU membership in the first stage: the probability of *High WBL Index* is 0.022 points higher for EU members than the other countries in our sample with a *p*-value less than 0.001. Furthermore, our

[11] For example, the Council Directive 2000/78/EC established a general framework for equal treatment in employment and occupation. The purpose of this directive was to lay down a general framework for combating discrimination on the grounds of religion or belief, disability, age or sexual orientation in regard to employment and occupation, with a view to putting into effect in the member states the principle of equal treatment. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32000L0078 The purpose of the following Directive 2006/54/EC was to ensure the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006L0054

Table 5 Pro-equality laws and gender pay gap in the C-suite – using heckman two-stage estimation. This table reports the results on how pro-equality laws affect the compensation gap between male and female executives using a two-stage estimation procedure. First-stage results. The dependent variable is *High WBL Index*, which is a dummy variable that equals one if *WBL Index* of the given country is above the sample median and zero otherwise. *WBL Index* is an unweighted average of the eight legislation indicators on a scale of 0 to 1, provided by the World Bank's WBL database. In all columns, we include year fixed effects and country time trends. Panel B: Second-stage results. The dependent variable in all columns is the natural logarithm of total compensation. To measure gender egalitarianism, we use the *WVS 7Q* (*Welzel*) index, which is defined as the average country-level index based on individual responses to seven (three) questions concerning perceptions about women's role in the society in the World Values Survey. *Inverse Mills Ratio* is estimated based on the specification in Panel A. In all columns, we include the control variables from Table 2, executive title, year and firm fixed effects and country time trends

Panel A Dependent variable:	*High WBL index*
	(1)
EU Member	0.196***
	(0.044)
GDP per Capita	−0.000***
	(0.000)
Labor Force Female Percentage	1.341***
	(0.014)
Life Expectancy	0.941***
	(0.007)
Ln(Population)	−0.599***
	(0.018)
Trade to GDP	−0.010***
	(0.001)
Unemployment	0.489***
	(0.005)
Constant	−127.024***
	(0.888)
Year Fixed Effects	Yes
Country Time Trends	Yes
Observations	355,197
Adjusted R-squared	0.723

Panel B Dependent variable:	*Ln(Total Pay)*				
Measure of *gender egalitarianism*:		*WVS 7Q*		*Welzel*	
Degree of *gender egalitarianism*:	Full	Low	High	Low	High
		(1)	(2)	(5)	(6)
Female	−0.299***	−0.440***	−0.193*	−0.403***	−0.214*
	(0.054)	(0.074)	(0.111)	(0.069)	(0.114)
Female × wbl index	0.255***	0.468***	0.081	0.411***	0.106
	(0.059)	(0.086)	(0.121)	(0.080)	(0.123)
WBL index	−0.385***	−0.183	0.053	−0.329**	0.203
	(0.094)	(0.206)	(0.155)	(0.165)	(0.174)
Inverse mills ratio	0.009**	0.010*	−0.019***	0.015**	−0.028***
	(0.004)	(0.007)	(0.007)	(0.007)	(0.009)
Control variables	Yes	Yes	Yes	Yes	Yes
Title fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes
Country time trends	Yes	Yes	Yes	Yes	Yes
Observations	355,197	224,387	130,810	256,042	99,155
Adjusted R-squared	0.871	0.896	0.785	0.887	0.792

Variable definitions are provided in online appendix A. Robust standard errors clustered at the firm level are reported in parenthesis. ∗, ∗ ∗, and ∗ ∗ ∗ indicate 10%, 5%, and 1% statistical significance, respectively.

instrument successfully passes the weak instrument tests recommended in the literature.[12]

Next, we proceed to the second stage in Panel B where we re-estimate the full-sample regression in column (2) of Table 3 and the subsample regressions in Table 4 using the Inverse Mills Ratio constructed based on the specification in Panel A. For the full sample as well as less egalitarian countries, the Inverse Mills Ratio has a positive coefficient (with differing significance levels) implying that if a country has a higher propensity to introduce gender equality laws, it tends to have a more equal compensation structure to begin with. The results from this two-stage estimation procedure reinforces our earlier inference: the top-down approach of passing laws enables greater pay equality between men and women, particularly when local gender norms favor male executives.

Additional Analysis and Findings

In this section, we decompose our main analyses to shed light on the practical impact of the legislative changes. First, we examine the different types of pro-equality laws to identify which are most effective in reducing the GPG. Second, we analyze how pro-equality laws are related to GPG of various components of compensation: salary, bonuses and share-based compensation as the negotiation processes and the level of formalization of these components vary. Third, we analyze whether pro-equality laws reduce GPG both for CEOs and non-CEO top management team (TMT) members, as the roles of CEO vs. non-CEO TMT members differ, and the transparency and decision-making process of their compensation considerably differ.

Which Type of Pro-Equality Laws Are Effective?

In this subsection, we examine which types of pro-equality laws are more effective in reducing the executive GPG. We analyze all eight indicators of pro-equality laws as categorized by the World Bank in the construction of the *WBL Index*. Our empirical setup is again based on Eq. (1), except that we replace the overall *WBL Index* with its sub-components. We also continue to divide our sample into high and low gender-egalitarian countries.

Pro-equality laws may affect executive pay gaps by targeting key sources of discrimination through three primary mechanisms: changes to labor supply, labor demand, and internal organizational processes. First, from the labor supply perspective, enhanced asset ownership and entrepreneurship rights improve women's access to economic resources and opportunities, motivating sustained career investments and increasing the qualified female talent pool available for executive roles (Hyland et al., 2020). In addition, marriage and parenthood rights may influence the participation of women in the labor market (Burns et al., 2025). Although these effects may manifest incrementally, they have the potential to reshape long-term patterns of labor market participation and professional advancement, ultimately placing upward pressure on women's relative earnings at the executive level.

Second, on the labor demand side, board quotas and transparency mandates significantly alter employer behaviors by changing normative expectations and increasing the reputational cost associated with discriminatory practices (Brieger et al., 2019; Terjesen et al., 2015). Facing heightened public accountability, firms proactively seek and retain female talent to maintain legitimacy and regulatory compliance. This increased organizational demand elevates women's bargaining power in compensation negotiations, reducing firms' tendencies to undervalue women's contributions. In addition, the demand for women may be influenced by differences in pay and pension rights, as they directly affect the cost of labor to the employer.

Third—and perhaps most directly—pay equity legislation reshapes internal compensation processes. Laws mandating transparency and equal pay reporting require organizations to review, document, and justify their compensation practices explicitly (Bennedsen et al., 2022; Brown et al., 2022; Cruz & Rau, 2022; Cullen, 2024; Lyons & Zhang, 2023). This enforced accountability reduces subjective biases in performance evaluations and curtails discriminatory pay practices. By formalizing equitable reward structures, these laws swiftly and directly reduce pay disparities at executive levels. This argument is consistent with previous organization-level research that demonstrates that formalization, accountability, and transparency practices may reduce the impact of biases in compensation (e.g., Abraham, 2017; Castilla, 2015; Elvira & Graham, 2002). In addition, equal workplace rights laws affect women's decisions to enter and remain in the labor force, as well as and include protections against discrimination and sexual harassment in the workplace.

We examine which types of laws are effective in reducing the GPG. In Table 6 we show our empirical results on how the types of pro-equality laws relate to GPG. In Panel

[12] Specifically, we run Staiger and Stock (1997) and Stock and Yogo (2005) weak instrument tests that are produced after the first stage of the 2SLS estimation. The Cragg-Donald Wald F-statistic is 613, which is well-above the cutoff of 10 that is recommended in Staiger and Stock (1997). Stock and Yogo (2005) test statistics indicates that the bias present in our regressions is well below the 10% cutoff recommended by that paper.

Table 6 Types of pro-equality laws and female pay gap in the C-suite – conditional on cultural gender norms/egalitarianism. This table reports the results on how different types of gender-related laws affect the compensation gap between male and female executives conditional on social norms on gender roles. The dependent variable in all columns is the natural logarithm of total compensation. To measure gender egalitarianism, we use the *WVS 7Q* index, which is defined as the average country-level index based on individual responses to seven questions concerning perceptions about women's role in the society in the World Values Survey In all columns, we include the control variables from Table 2, year, executive title, firm fixed effects, and country time trends

Panel A: Low Gender Egalitarianism. This panel uses the subsample of countries for which WVS 7Q index is below the median

Dependent variable:	*Ln(total pay)*								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	−0.184**	−0.095***	−0.161***	−0.200**	−0.069***	−0.404***	−0.576***	−0.079**	−0.760***
	(0.081)	(0.034)	(0.025)	(0.085)	(0.018)	(0.067)	(0.085)	(0.035)	(0.190)
Female × Mobility Rights	0.106								−0.440
	(0.078)								(0.418)
Mobility Rights	−1.125***								−1.126***
	(0.053)								(0.053)
Female × Workplace Rights		0.030							−0.050
		(0.031)							(0.088)
Workplace Rights		−0.087***							−0.049
		(0.029)							(0.030)
Female × Pay Rights			0.154***						0.149***
			(0.025)						(0.039)
Pay Rights			−0.418***						−0.271***
			(0.103)						(0.104)
Female × Marriage Rights				0.130					0.216
				(0.083)					(0.221)
Marriage Rights				−0.354*					−0.214
				(0.192)					(0.210)
Female × Parenthood Rights					−0.005				0.019
					(0.032)				(0.078)
Parenthood Rights					−0.147**				−0.036
					(0.070)				(0.085)
Female × Entrepreneurship Rights						0.358***			0.353*
						(0.064)			(0.181)
Entrepreneurship Rights						−0.393***			−0.139
						(0.124)			(0.151)
Female × Assets Rights							0.516***		0.670***
							(0.083)		(0.223)
Assets Rights							−1.242***		−0.335
							(0.297)		(0.290)
Female × Pension Rights								0.012	0.102
								(0.041)	(0.096)
Pension Rights								0.200**	0.108
								(0.097)	(0.107)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Title fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country time trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	224,387	224,387	224,387	224,387	224,387	224,387	224,387	224,387	224,387
Adjusted R-squared	0.898	0.896	0.896	0.896	0.896	0.896	0.896	0.896	0.898

Table 6 (continued)

Panel B: High Gender Egalitarianism. This panel uses the subsample of countries for which WVS 7Q index is above the median.

Dependent variable:	*Ln(Total pay)*								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	−0.123***	−0.050	−0.018	−0.196**	−0.120***	−0.217**	−0.123***	−0.172***	−0.150
	(0.026)	(0.062)	(0.110)	(0.081)	(0.030)	(0.111)	(0.026)	(0.040)	(0.163)
Female × Mobility Rights	−0.121								−0.020
	(2.226)								(2.379)
Mobility Rights	−1.613***								−1.900***
	(0.087)								(0.350)
Female × Workplace Rights		−0.075							−0.021
		(0.061)							(0.068)
Workplace Rights		0.055							0.163***
		(0.036)							(0.042)
Female × Pay Rights			−0.103						−0.111
			(0.108)						(0.107)
Pay Rights			−0.010						−0.036
			(0.064)						(0.066)
Female × Marriage Rights				0.084					0.059
				(0.084)					(0.108)
Marriage Rights				0.015					0.161***
				(0.058)					(0.060)
Female × Parenthood Rights					−0.001				−0.046
					(0.028)				(0.043)
Parenthood Rights					−0.106***				−0.166***
					(0.021)				(0.023)
Female × Entrepreneurship Rights						0.100			0.065
						(0.109)			(0.121)
Entrepreneurship Rights						−0.119*			−0.214**
						(0.071)			(0.083)
Female × Assets Rights							−0.972		−0.434
							(2.526)		(2.226)
Assets Rights							−1.330***		0.253
							(0.075)		(0.300)
Female × Pension Rights								0.063	0.080
								(0.063)	(0.052)
Pension Rights								0.026	0.224***
								(0.065)	(0.068)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Title fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country time trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	130,810	130,810	130,810	130,810	130,810	130,810	130,810	130,810	130,810
Adjusted R-squared	0.788	0.785	0.785	0.785	0.785	0.785	0.787	0.785	0.788

Variable definitions are provided in online appendix A. Robust standard errors that account for clusters at the firm level are reported in parenthesis. ∗, ∗ ∗, and ∗ ∗ ∗indicate 10%, 5%, and 1% statistical significance, respectively.Panel A: Low Gender Egalitarianism. This panel uses the subsample of countries for which *WVS 7Q* index is below the median. Panel B: High Gender Egalitarianism. This panel uses the subsample of countries for which *WVS 7Q* index is above the median

A, we focus on countries with a low degree of gender egalitarianism and find that female executives in these countries materially benefit from pro-equality laws related to pay, asset ownership, and entrepreneurship rights while the other laws either do not have that objective or are ineffective. In column (9), we also run a horse race between all types of laws and obtain similar inferences (with *p*-values of 0.004, 0.003, and 0.051 for the interaction of *Female* with *Pay Rights*, *Asset Rights*, and *Entrepreneurship Rights*, respectively). In terms of economic magnitudes shown in column (9), one standard deviation changes in pay, asset ownership, and entrepreneurship rights are, respectively, associated with 4.51 percent, 5.96 percent, and 3.99 percent change in the relative compensation of female executives.[13] In Panel B, on the other hand, we examine the countries with a high degree of gender egalitarianism. Focusing again on the interaction terms between different types of laws and *Female*, we observe that none of the eight types of laws are associated with a lower executive GPG in countries high in egalitarianism.

To conclude, our results indicate that both direct (pay rights) and indirect economic rights (entrepreneurship and asset rights) matter more than other types of pro-equality laws. One reason may relate to our target employees, executives, as they require economic opportunities to reach such positions, and executive labor markets are competitive with relatively transparent compensation practices making them easier to compare relative to many other types of employees.

Gender Pay Gap in the Components of Executive Compensation

Pro-equality laws may differ in their effect depending on the compensation components. Salary-based compensation, often governed by formal pay bands and legal standards, presents a more direct site for accountability. Bonuses and equity pay, by contrast, are shaped by subjective assessments and informal negotiations, making them less susceptible to regulatory intervention. Following the logic of institutional theory, regulation is more effective in more transparent and formalized domains than in ambiguous or discretionary settings (Meyer & Rowan, 1977). Therefore, pro-equality laws may be more effective in reducing salary disparities and in narrowing gender pay gaps than in bonuses and equity pay.

In Table 7, we examine whether the components of executive compensation differ in their sensitivity to pro-equality laws. In Panel A, we find that the coefficient of *Female* × *WBLIndex* is positive and statistically significant only when *Salary* is used as the dependent variable. This suggests that pro-equality legislations impact executive GPG only by reducing the *Salary* gap between male and female executives, and not the other components of executive pay. In Panel B, we further confirm that the salary gap faced by female executives shrinks significantly when pro-equality laws are in effect in the less egalitarian countries with a *p*-value less than 0.001 regardless of the measure of egalitarianism.

To conclude, we find that the executive GPG is concentrated in salary rather than in bonuses or equity-based pay.[14] Pro-equality laws are correspondingly more effective in reducing salary disparities than those in bonuses and equity pay.

CEO and Non-CEO Executive Gender Pay Gap

Most prior executive-level studies on the gender pay gap (GPG) have focused on CEOs (Adams et al., 2007; Bugeja et al., 2012; Chen et al., 2022; Gupta et al., 2018; Withers et al., 2024), even though evidence suggests that gender disparities are often more pronounced among non-CEO TMT members (Burns et al., 2025). One explanation lies in differences in pay transparency and external oversight. CEO compensation is typically disclosed publicly and subject to regulatory or shareholder scrutiny (Cruz & Rau, 2022), which may constrain extreme disparities. In contrast, non-CEO TMT compensation is often negotiated in less transparent organizational contexts and is less visible to external stakeholders. This opacity makes pay decisions for these roles more susceptible to informal bias, discretionary judgment, and exclusionary networks—factors that can exacerbate gender disparities (Burns et al., 2025).

From a role congruity perspective, these conditions of low transparency amplify the likelihood of evaluators relying on gendered schemas when assessing merit, competence, and compensation (Eagly & Karau, 2002). Ambiguity in performance criteria heightens the risk of bias, especially where leadership continues to be coded in masculine terms (Castilla, 2015; Wiedman, 2020). In such contexts, the ethical implications extend beyond misrecognition to systemic injustice, as informal discretion allows inequity to persist unchallenged. Accordingly, we anticipate that gender pay gaps will be greater among non-CEO TMT members

[13] The standard deviations of pay rights, asset ownership rights, and entrepreneurship rights are, respectively, 0.303, 0.089, and 0.113 in the subsample of low gender egalitarian countries.

[14] In unreported regressions without the WBL index and its interaction with *Female*, albeit marginally significant, an equity pay gap is also present between male and female executives. However, as shown in Table 7, pro-equality laws are effective in reducing the salary gap alone and not the equity pay gap plausibly because other factors such as dynamics of the stock market restrain the role of laws in reducing the equity pay gap.

Table 7 Pro-equality laws and gender pay gap in the C-suite – components of executive pay. This table reports the results on how pro-equality laws affect the components of executive compensation differently for female executives. *Female* is a dummy variable that equals one if the gender of the executive is identified as female. *WBL Index* is an unweighted average of the eight legislation indicators on a scale of 0 to 1, provided by the World Bank's WBL database. Variable definitions are provided in Online Appendix A. In all columns, we include the control variables from Table 2, executive title, year and firm fixed effects and country time trends.. Panel A: Full Sample. In this panel, we include the full sample of countries. The dependent variable in column (1) is the natural logarithm of salary, in column (2) the natural logarithm of bonuses, and in column (3) the natural logarithm of restricted stock and stock options. Panel B: Salary Gap Conditional on Gender Egalitarianism. The dependent variable is the natural logarithm of salary in all columns. To measure gender egalitarianism, we use the *WVS 7Q* index in columns (1) and (2) and *Welzel* index in columns (3) and (4), which are defined as the average country-level index based on individual responses to seven and three questions, respectively, concerning perceptions about women's role in the society in the World Values Survey

Panel A Dependent variable:	*Ln(Salary)*	*Ln(Bonus)*	*Ln(Equity Pay)*
	(1)	(2)	(3)
Female	0.276***	0.014	0.004
	(0.051)	(0.222)	(0.155)
Female × *WBL Index*	0.243***	−0.048	−0.217
	(0.056)	(0.237)	(0.163)
WBL Index	−0.314***	10.101***	−6.587***
	(0.065)	(0.774)	(0.802)
Control variables	Yes	Yes	Yes
Title fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Country time trends	Yes	Yes	Yes
Observations	355,197	355,197	355,197
Adjusted R-squared	0.848	0.596	0.722

Panel B Dependent variable:	*Ln(salary)*			
Measure of *gender egalitarianism*:	*WVS 7Q*		*Welzel*	
Degree of *gender egalitarianism*:	Low	High	Low	High
	(1)	(2)	(3)	(4)
Female	−0.807***	−0.200*	−0.673***	−0.194
	(0.084)	(0.120)	(0.076)	(0.119)
Female × *WBL Index* (β)	0.948***	0.103	0.767***	0.097
	(0.097)	(0.129)	(0.087)	(0.128)
WBL Index	−0.281	−0.223**	−0.329**	−0.147*
	(0.207)	(0.087)	(0.162)	(0.089)
Control variables	Yes	Yes	Yes	Yes
Title fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Country time trends	Yes	Yes	Yes	Yes
H_0: $\beta_{Low} = \beta_{High}$ *[p-value]*	[< 0.001]		[< 0.001]	
Observations	224,387	130,810	256,042	99,155
Adjusted R-squared	0.868	0.701	0.854	0.716

Variable definitions are provided in online appendix A. Robust standard errors clustered at the firm level are reported in parenthesis. *, * *, and * * * indicate 10%, 5%, and 1% statistical significance, respectively

and that pro-equality legislation will be more effective in addressing pay disparities in these roles.

Pro-equality laws may also operate differently across CEO and non-CEO TMT roles due to structural and institutional distinctions. First, the labor markets and competency profiles for CEOs and non-CEOs differ (Hambrick, 1994; Withers et al., 2024), leading to different compensation practices. Second, CEO pay is typically governed by formal disclosure

rules or corporate governance codes that mandate transparency (Brown et al., 2022), whereas compensation for non-CEO TMT members is less regulated and often opaque (Frydman, 2019). Third, CEOs often hold influence over the appointment, compensation, and dismissal of other TMT members (Withers et al., 2024), introducing potential for asymmetric power dynamics and informal discretion. These factors increase the likelihood of inefficient or biased compensation contracts among non-CEO TMT members and may contribute to larger GPGs in these roles. Therefore, we expect that pro-equality laws play a bigger role in reducing GPG among non-CEOs. We also expect that this effect is most prevalent in salary relative to other pay components and in countries with low gender egalitarianism.

The results are reported in Table 8. In columns (1) and (2) of Panel A, we document that both female CEOs and female non-CEO TMT members earn significantly lower pay than their male counterparts. In columns (3) and (4), we further find that these pay gaps are mostly in the form of lower salaries paid to female executives. However, pay discrimination against female CEOs is statistically indistinguishable from that against non-CEO TMT members. Next, in columns (5) through (8), we examine the total executive pay and salary and find that the interaction between *Female* and *WBL Index* has a positive and significant coefficient only in the subsample of non-CEO TMT members. The reduction in the salary gap for female non-CEO TMT members resulting from more equal legislation is also statistically larger than that for female CEOs, with a p-value of 0.03.

In Panel B, we examine the impact of pro-equality laws on total pay and salary differences between male and female executives under different cultural norms concerning gender equality. Consistent with the evidence thus far, the coefficient estimates for the interaction between *Female* and *WBL Index* is positive and significant only in the subsample of non-CEO TMT members and in countries with low gender egalitarianism. This finding suggests that the pay gap that exists between female and male non-CEO TMT members in countries with low gender egalitarianism becomes smaller as the legal equality between men and women is enhanced. This reduction is also statistically larger than that in countries with high gender egalitarianism, with a p-value less than 0.001.

Lastly, in Table C2 in our online appendix where the subsamples of CEO and non-CEO TMT members are pooled, we also find that the triple interaction between *Female*, *WBL Index* and *Non-CEO* (a dummy variable that equals one if the given executive is a non-CEO executive) has a positive and statistically significant coefficient ($\beta_{Non\text{-}CEO}$) only for countries with low gender egalitarianism (with a p-value less than 0.001). This effect is also driven largely by the salary component of compensation, aligned with earlier findings. For countries with high gender egalitarianism, on the other hand, $\beta_{Non\text{-}CEO}$ is not statistically distinguishable from zero (with p-value = 0.445). Moreover, the coefficient of the triple interaction among *Female*, *WBL Index*, and *CEO* (a dummy variable that equals 1 if the given executive is a CEO), i.e., β_{CEO}, is statistically indistinguishable from zero regardless of the underlying gender norms. These findings support those in Panel B of Table 8. We also test the difference between $\beta_{Non\text{-}CEO}$ and β_{CEO} for each column and find that the difference is marginally significant at the 10% significance level for both total compensation and salary in countries with lower gender egalitarianism (with p-value = 0.094 and p-value = 0.097, respectively), reinforcing the evidence in Panel B.

Discussion

This study draws on role congruity theory, institutional theory, and feminist ethics, particularly ethics of care to offer a theoretically grounded and ethically informed account of the global executive gender pay gap (GPG) and its structural determinants. Consistent with prior research, our findings confirm a persistent gender pay gap among executives globally. Aligning further with prior studies linking societal norms to labor market outcomes (Fortin, 2005; McLean et al., 2023), we demonstrate that the gender pay gap varies with cultural norms, with pay disparities among executives being significantly larger in countries characterized by low levels of gender egalitarianism.

Importantly, our empirical analyses contribute to the ethics literature on income inequality by highlighting the instrumental and ethical role of formal legal interventions in addressing executive pay disparities. Specifically, our study provides compelling evidence of a causal relationship between pro-equality legislation and lower level of the executive GPG. Crucially, the effects are strongest in less egalitarian cultural contexts, supporting the view that formal institutions serve as ethical and institutional correctives where cultural norms fail to uphold gender equity.

Our key contribution lies in demonstrating that pro-equality laws are particularly consequential in contexts where cultural norms resist gender equality. In societies shaped by deeply entrenched patriarchal expectations, informal institutions constrain women's access to leadership roles and entrench biased compensation practices (Aldossari & Calvard, 2022; Horak & Suseno, 2023; Koburtay et al., 2020). In such environments, formal legislation functions as a regulatory institutional intervention, imposing standards of economic fairness in executive compensation that are otherwise unsupported by prevailing informal cultural norms. This study advances feminist ethics by empirically illustrating how gender equity requires more than individual intention—it demands collective, structural responsibility.

Table 8 Pro-equality laws and female pay gap in the C-suite for CEO vs. non-CEO TMT members. This table reports the results on how pro-equality laws affect the compensation gap between male and female executives for non-CEO TMT members and CEOs separately. *Female* is a dummy variable that equals one if the gender of the executive is identified as female. *WBL Index* is an unweighted average of the eight legislation indicators on a scale of 0 to 1, provided by the World Bank's WBL database. In all columns, we include the control variables from Table 2, year, and firm fixed effects, and country time trends. Where applicable, we also include executive title fixed effects. The dependent variable is the natural logarithm of total compensation in columns (1)-(2) and (3)-(4) and the natural logarithm of salary in columns (3)-(4) and (7)-(8). Panel B: Conditional on Gender Egalitarianism The dependent variable is the natural logarithm of total compensation in columns (1)-(4) and the natural logarithm of salary in columns (5)-(8). To measure gender egalitarianism, we use the *WVS 7Q* index, which is defined as the average country-level index based on individual responses to seven questions concerning perceptions about women's role in the society in the WVS

Panel A Dependent Variable:	*Ln(Total Pay)*		*Ln(Salary)*		*Ln(Total Pay)*		*Ln(Salary)*	
Type of Executive:	*Non-CEO*	*CEO*	*Non-CEO*	*CEO*	*Non-CEO*	*CEO*	*Non-CEO*	*CEO*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female (β_1)	−0.100***	−0.124***	−0.073***	−0.112***	−0.310***	−0.129	−0.293***	−0.131
	(0.017)	(0.045)	(0.016)	(0.040)	(0.073)	(0.154)	(0.068)	(0.129)
Female × *WBL Index* (β_2)					0.251***	0.006	0.262***	0.023
					(0.079)	(0.175)	(0.073)	(0.149)
WBL Index					−0.683***	−0.331***	−0.432***	−0.126
					(0.098)	(0.102)	(0.083)	(0.083)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Title Fixed Effects	Yes	No	Yes	No	Yes	No	Yes	No
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
H_0: $\beta_{1,\ CEO} = \beta_{1,\ Non\text{-}CEO}$ *[p-value]*	[0.30]		[0.20]					
H_0: $\beta_{2,\ CEO} = \beta_{2,\ Non\text{-}CEO}$ *[p-value]*					[0.10]		[0.03]	
Observations	224,816	138,326	224,816	138,326	224,816	138,326	224,816	138,326
Adjusted R-squared	0.868	0.876	0.843	0.864	0.868	0.876	0.843	0.864
Panel B Dependent variable:	*Ln(Total pay)*				*Ln(Salary)*			
Type of executive:	*Non-CEO*		*CEO*		*Non-CEO*		*CEO*	
WVS 7Q:	Low	High	Low	High	Low	High	Low	High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	−0.531***	−0.234*	−0.247	0.228	−0.558***	−0.169	−0.355**	0.258
	(0.105)	(0.126)	(0.209)	(0.441)	(0.100)	(0.122)	(0.170)	(0.366)
Female × *WBL Index* ($\boldsymbol{\beta}$)	0.568***	0.115	0.161	−0.394	0.632***	0.072	0.311	0.388
	(0.122)	(0.137)	(0.257)	(0.490)	(0.115)	(0.131)	(0.212)	(0.414)
WBL Index	−0.945***	−0.366***	−0.424**	−0.243*	−0.399*	−0.327***	0.052	−0.347***
	(0.235)	(0.126)	(0.207)	(0.138)	(0.237)	(0.095)	(0.192)	(0.108)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Title fixed effects	Yes	Yes	No	No	Yes	Yes	No	No
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country time trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
H_0: $\beta_{Low} = \beta_{High}$ *[p-value]*	[0.006]		[0.158]		[< 0.001]		[0.456]	
Observations	141,726	78,684	82,661	52,126	224,387	130,810	82,661	52,126
Adjusted R-squared	0.898	0.767	0.899	0.796	0.868	0.701	0.896	0.740

Variable definitions are provided in Online Appendix A. Robust standard errors clustered at the firm level are reported in parenthesis. ∗, ∗ ∗, and ∗ ∗ ∗ indicate 10%, 5%, and 1% statistical significance, respectively. Panel A: Baseline Results

Feminist ethics critiques traditional ethical models for neglecting the systemic and relational foundations of inequality and instead emphasizes care, interdependence, and moral attentiveness in institutional life (Held, 2006; Pullen & Vachhani, 2021). Our findings suggest that pro-equality laws can help embed care-based values into organizational routines, particularly in settings where cultural norms offer less support for gender-equitable outcomes.

A notable and practically relevant dimension of our findings concerns our additional analysis on the variation in the types of pro-equality laws, executive gender pay gap across compensation components, and leadership roles. We find differences in the effectiveness of pro-equality laws depending on their type. Pay rights, asset rights, and entrepreneurship rights seem to be effective. While our analysis finds robust effects across pay rights, asset rights, and entrepreneurship rights, the mechanisms through which these laws operate may vary.

Pay rights legislation works by directly targeting discriminatory compensation practices—enhancing transparency, limiting discretion, and imposing accountability within existing pay structures. In contrast, asset ownership and entrepreneurship rights likely influence the executive gender pay gap through broader structural channels. These laws expand women's access to economic resources, improve financial independence, and encourage investment in education and career advancement (Hyland et al., 2020). By enhancing women's economic agency, they strengthen long-term labor market attachment and increase the pool of qualified female candidates for leadership roles and therefore the probability of being promoted. Rather than correcting bias at the point of pay negotiation, these reforms help build equitable career foundations. In some contexts, these rights may also support women in pursuing alternative leadership paths—such as business ownership—which may improve gender equity broadly. From an ethics-of-care perspective, increasing female representation in leadership is expected to also foster relationally attentive and fairness-driven organizational cultures (Tronto, 1993). Empirical studies confirm that female executives are more likely to promote ethical compensation practices and care-based governance norms (Qin et al., 2025), including human capital development policies that reflect long-term stakeholder responsibility (Callahan et al., 2024).

We found that the executive GPG is concentrated in salary rather than in bonuses or equity-based pay and is most pronounced among non-CEO executives—whose compensation is typically less transparent and less formalized (Burns et al., 2025). The finding that pro-equality legislation is more effective in salary-based compensation than in bonuses or equity-based pay aligns with institutional theory, which emphasizes that the regulative effects of law are strongest in transparent, formalized domains and are often limited in ambiguous or discretionary settings prone to decoupling (Meyer & Rowan, 1977). Although executive salaries are not subject to legal pay bands, they are often governed by formal oversight mechanisms, making them more accessible to compliance and monitoring efforts, enhancing the alignment between law and practice. Bonuses and equity-based compensation are often governed by opaque criteria and informal discretion. In the absence of direct regulatory requirements, it is uncertain to what extent equity principles are consistently enforced in these domains.

We also found that pro-equality laws are more effective in reducing GPG among non-CEO TMT members and especially disparities in their salary. Non-CEO TMT members may face greater exposure to bias due to lower organizational status and weaker external scrutiny. Their compensation is more vulnerable to informal influences and gendered evaluations since their roles lack the visibility and legitimacy that often accompany CEO status. In this context, pro-equality legislation appears particularly effective as a corrective mechanism. These findings are in line with role congruity theory, which suggests that bias intensifies when evaluators rely on gendered expectations in ambiguous decision-making contexts. Therefore, it is not surprising that GPGs are especially salient in lower-visibility roles and in discretionary pay structures, where performance is more difficult to evaluate objectively (Castilla, 2015; Wiedman, 2020). Feminist ethics reinforces this logic: ethics of care highlights that bias persists where responsibility is obscured and relational attentiveness is lacking (Gilligan, 1982; Held, 2006; Tronto, 1993).

Together, these findings indicate that the effectiveness of pro-equality legislation depends on how deeply compensation and leadership structures are rooted in informal norms and discretionary practices. While our findings indicate that laws may act as ethical and institutional correctives mitigating GPG, lasting progress likely depends on their interaction with—and eventual reshaping of—the informal cultural foundations in which executive pay decisions are embedded. While cultural norms change slowly (Inglehart & Baker, 2000; Kirkman et al., 2017; Taras et al., 2012), future research should explore the conditions and timelines under which legal reforms catalyze broader normative shifts toward equity and care-based governance.

Limitations and Future Research Suggestions

While our study leverages the WBL index due to its standardized, transparent, and comparable methodology, its geographical and regulatory scope has inherent limitations, notably the primary focus on the largest cities, potentially reducing representativeness, particularly within large federal

economies or regarding minority populations (World Bank, 2023). Additionally, legislative effectiveness may vary significantly based on local enforcement capacities (Hedija, 2018), and high cultural distance may impair successful implementation (Barkema & Vermeulen, 1997; Kostova & Roth, 2002). Moreover, because the WBL index aggregates self-reported expert evaluations across broad legal domains, our study does not examine the specific provisions of individual statutes, nor does it capture the degree to which particular laws address all relevant aspects of specific type of provisions. Thus, our analysis reflects an overall proxy for the national legal environment rather than a detailed assessment of the content or enforcement of particular legislative acts. Future studies should therefore explore how the design, scope, and enforcement of individual legal reforms distinctly shape executive pay outcomes.

Leveraging data from 26 countries spanning 14 years, our analysis captures significant cross-country variation in pro-equality legislation, even as within-country changes tend to be more gradual. Methodologically, we addressed endogeneity concerns via a rigorous two-stage estimation approach with EU membership as an instrumental variable. Nevertheless, potential latent variable biases or measurement errors might remain (Chang et al., 2020; Roberts & Whited, 2013; Wolfolds & Siegel, 2019). For example, latent factors influencing executive appointments could also directly influence pay disparities. Addressing these methodological challenges presents an important avenue for future research.

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Data Availability Statement The datasets generated and analyzed during the current study are based on publicly available sources. Executive compensation data were obtained from the Standard & Poor's Capital IQ database. National-level legal data on pro-equality legislation were drawn from the World Bank's Women, Business, and the Law (WBL) database, and cultural gender norms were derived from the World Values Survey (WVS). All datasets are available from the respective providers upon registration or request, subject to their terms of use. The processed data supporting the findings of this study are available from the first author on reasonable request.

Declarations

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