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# The Implications of Pay Range Transparency on Job Application Preferences and Negotiations

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Pay range transparency laws, which require employers to disclose salary ranges in job postings, have gained traction as a strategy for narrowing the gender pay gap by strengthening workers' access to pay information. However, these policies often give employers considerable latitude in setting how wide or narrow those ranges are, raising questions about whether certain implementations might inadvertently sustain—or even exacerbate—existing wage disparities. Our research addresses this issue by examining how the *width* of disclosed pay ranges influences women's and men's job application and negotiation behaviors and whether providing more clarity around typical salary outcomes can mitigate these unintended consequences. Across four studies—encompassing a large archival data set (Study 1), surveys and field experiments with prospective and actual job seekers (Studies 2 and 3), and an experimental intervention (Study 4)—we consistently find that women exhibit a stronger preference for jobs with narrower pay ranges than men, largely driven by women's higher risk aversion. Moreover, choosing narrower pay ranges is associated with less assertive negotiation behaviors, suggesting a path through which pay range disclosures may perpetuate gender gaps in compensation. By providing explicit information about the typical starting salary and the criteria used to determine final offers, we show that organizations can reduce these effects and support more equitable outcomes, offering practical insights for policymakers and employers aiming to ensure that pay transparency fulfills its aim of closing, rather than reinforcing, the gender wage gap.


*Keywords:* pay transparency, gender pay gap, negotiation, risk preference, job application

The persistent gender pay gap remains a critical concern in labor market policy and organizational practice, with women continuing to earn less than men for comparable work (Aragão, 2023; Blau & Kahn, 2017; Lips, 2013). In response, the practice of disclosing pay ranges in job postings—often referred to as *pay range transparency*—has gained momentum in the United States and worldwide, as governments seek to address wage disparities and promote fairness in compensation practices (National Women's Law Center, 2023; Shumway, 2022). By disclosing the minimum and maximum salaries in job postings (e.g., \$65,000–\$85,000), these policies are designed to offer applicants a clearer understanding of potential earnings and equip them with more accurate salary information, thereby strengthening their bargaining power and addressing unjustifiable pay disparities (Bamberger, 2023; Cullen, 2024; Kim, 2015). Alongside the growing number of jurisdictions adopting such laws,<sup>1</sup> rising labor market demand and the anticipation of future

mandates have led many firms to voluntarily implement pay range disclosures. Some employers report that publicizing salary ranges improves the size and quality of their applicant pools and strengthens their competitive edge in attracting top talent, further incentivizing them to post pay ranges even in the absence of legal requirements (Society for Human Resource Management, 2023). Reflecting these developments, the proportion of U.S. job postings that disclose salary information has surged—from 18.4% in February 2020 to 43.7% in February 2023—and by September

<sup>1</sup> As of December 2024, 10 states (California, Colorado, Connecticut, District of Columbia, Hawaii, Maryland, New York, Nevada, Rhode Island, and Washington) have implemented similar policies. In addition, five more states (Illinois, Massachusetts, Minnesota, New Jersey, and Vermont) have enacted new laws set to take effect in 2025 (Hugh, 2025).

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2024, approximately 60% of all U.S. job postings featured some form of salary disclosure (Culbertson, 2024; Stahle, 2023a).

A notable feature of pay range disclosure laws is the lack of precise guidelines on how these ranges should be determined, which grants employers considerable latitude and discretion in setting specific salary ranges. For example, New York City's Salary Transparency in Job Advertisements law requires employers to include a "good faith" salary range but does not define strict parameters on the range's width (New York City Council, 2022). Similarly, California's pay transparency law (Senate Bill 1162, 2022) mandates the inclusion of a pay scale that reflects "the salary or hourly wage range that the employer *reasonably expects* to offer for the position" (Senate Bill 1162, 2022; italics are added for emphasis). Such latitude is understandable, as it allows employers to adjust compensation based on factors such as candidates' qualifications, experience, or evolving market conditions (Francis & Cutter, 2022). However, this flexibility has led to substantial variability in the width of the pay ranges disclosed—some employers list extremely wide ranges, while others provide far narrower ones (Cerullo, 2022). For instance, in 2024, Netflix advertised a remote software engineer position with a salary range spanning from \$100,000 to \$720,000, whereas Microsoft listed a similar remote role with a considerably narrower range of \$112,000 to \$218,000 (Comprehensive.io, n.d.). Such wide variation in pay range sizes raises questions about whether these disclosures genuinely help applicants gauge their likely pay or instead leave job seekers facing greater uncertainty when interpreting the implications of a salary range's width. Indeed, recent research shows that a transparency policy's effect depends not only on the information provided but also on how it is framed and understood by job seekers (Kuhn, 2024).

In the present research, we examine how the *width* of a disclosed pay range affects job application preferences and subsequent negotiation behaviors, with a particular focus on gender differences. We propose that the levels of uncertainty created by narrow versus wide pay ranges differentially affect women's and men's application decisions due to gender differences in risk preferences. Specifically, we argue that women's higher risk aversion drives a stronger preference for the certainty of narrower pay ranges, which in turn leads to less assertive negotiation behaviors—potentially reinforcing existing gender pay disparities by constraining women's negotiation opportunities and final earnings. Furthermore, we propose that such disparities can be mitigated when employers explicitly clarify typical salary outcomes and how pay is determined, thereby reducing uncertainty for risk-averse applicants and promoting more equitable outcomes.

By examining how narrow versus wide pay ranges shape application and negotiation behaviors, this research offers a timely perspective on how well-intentioned pay transparency policies, if poorly implemented, can inadvertently disadvantage certain groups. Although considerable research has explored gender disparities in job applications and negotiations (e.g., Castilla & Rho, 2023; Flory et al., 2015; Leibbrandt & List, 2015; Samek, 2019), few studies have focused specifically on the effects of pay range disclosures on early employment decisions. By demonstrating that narrower ranges attract more women yet lead to less assertive negotiation behavior, we highlight a critical path through which pay range disclosure may affect long-term earnings trajectories. We discuss the implications of our findings for theory, practice, and pay range transparency policies in the General Discussion, including recommendations for

ensuring that transparency initiatives achieve their intended equity outcomes rather than inadvertently reinforcing pay gaps.

## Theory and Hypothesis Development

### *Pay Range Size and Uncertainty*

Due to employer discretion in deciding how wide or narrow to set posted ranges, pay ranges differ considerably across organizations (Green & Boyle, 2023; Stahle, 2023b). The width of these ranges likely has implications for job seekers' ability to predict their final compensation. Wide ranges (e.g., \$40,000–\$90,000) introduce greater variability in potential outcomes. While the upper bound may suggest an opportunity for higher earnings (Belogolovsky & Bamberger, 2014), the large spread also increases the possibility of receiving an offer at the lower end, effectively increasing the perceived risk associated with final compensation (Grube & Nitschke, 2011; Sweeny & Shepperd, 2007). By contrast, narrow ranges (e.g., \$55,000–\$75,000) constrain this set of possible salary outcomes, offering applicants greater certainty and more predictable earnings expectations.

We theorize that job seekers' responses to this compensation uncertainty created by the pay range width are shaped by their individual risk preferences. Individuals who are more risk-averse tend to prefer more certain outcomes over variable ones (Hardman, 2009; Kahneman & Tversky, 1979) and are prone to favor more predictable paths (Bonin et al., 2007; van Huizen & Alessie, 2019). Accordingly, when presented with job opportunities offering similar expected pay, risk-averse individuals are likely to favor positions with smaller pay variability, while risk-tolerant individuals might be indifferent or even attracted to the chance of a higher payoff despite the uncertainty (Croson & Gneezy, 2009; Holt & Laury, 2002). This preference for certainty is particularly relevant to how job seekers evaluate their expected earnings. Research on compensation shows that risk-averse people prefer fixed or more stable pay schemes over variable ones (Cable & Judge, 1994; Cadsby et al., 2007; Dohmen & Falk, 2011) and are more likely to work in occupations with low earnings risk (Bonin et al., 2007; Jung et al., 2018). Narrower pay ranges, by lessening perceived earnings volatility, should therefore be more appealing to job seekers who prioritize predictable compensation over higher but uncertain pay. Recent work by Kuhn (2024) provides complementary evidence for this view, demonstrating that the uncertainty inherent in wide pay ranges can undermine applicants' perceptions of organizational trustworthiness. Although Kuhn did not consider risk aversion or different subgroups (e.g., women), these findings support the broader notion that wide salary ranges may pose greater concerns for those especially sensitive to uncertainty.

### *Gender Differences in Risk Aversion*

A robust literature spanning economics and psychology identifies gender as a correlate of risk preference, with women generally exhibiting greater risk aversion compared to men (Byrnes et al., 1999; Croson & Gneezy, 2009; Eckel & Grossman, 2002, 2008). For example, studies show that women tend to select more stable investments (Charness & Gneezy, 2012; Dwyer et al., 2002; Jianakoplos & Bernasek, 1998), avoid highly variable or uncertain pay structures (Bonin et al., 2007; Dohmen & Falk, 2011), and are

less likely to enter high-risk or highly competitive situations such as financial tournaments (Niederle & Vesterlund, 2007; Samek, 2019). While the strength of these correlations can vary with the specific tasks and measures used (Crosetto & Filippin, 2016; Filippin & Crosetto, 2016; Frey et al., 2021), the cumulative evidence consistently points to a reliable, if moderate, gender difference in risk preference—one that carries meaningful implications for how women and men navigate uncertainty in labor market settings (Shurchkov & Eckel, 2018).

For instance, Flory et al. (2015) showed in a large field experiment that introducing a more competitive, high-variability pay scheme (a tournament reward) significantly deterred women applicants relative to men, contributing to gender differences in job application rates. Jung et al. (2018) found in a lab experiment that women were more likely to choose secure jobs over higher paying but riskier positions and that this difference in choice accounted for a substantial portion of the observed wage gap. Furthermore, recent research on MBA graduates' job searches found that men's higher self-reported risk tolerance led them to hold out for higher paying jobs, contributing to higher starting salaries, whereas women's lower risk tolerance contributed to accepting job offers sooner at lower pay (Cortés et al., 2023). Notably, controlling for individuals' risk preferences explained roughly 20% of the residual gender gap in first-year earnings, underscoring that gender differences in risk preference can translate into meaningful differences in career outcomes.

Building on the above reasoning, we propose that gender differences in risk preference will shape how women and men respond to narrow versus wide salary ranges in job postings. Because women, on average, are more risk-averse, they should be more inclined than men to prefer jobs with narrower pay ranges, which offer greater predictability in final compensation. We further propose that these patterns are driven by underlying gender differences in risk preference.

*Hypothesis 1:* Women will show a stronger preference for jobs with narrower (vs. wider) pay ranges compared to men (Hypothesis 1a), and this effect will be explained by gender differences in risk preference (Hypothesis 1b).

### **Pay Range Size and Negotiation Assertiveness**

Once applicants progress beyond initial application decisions, many enter a phase of discussing salary and other employment terms (Brown et al., 2022; Keller, 2018). These negotiations play a critical role in determining salary outcomes, which can have lasting effects on employees' long-term earnings potential and financial trajectory (Gerhart & Rynes, 1991; O'Shea & Bush, 2002; Oreopoulos et al., 2012). While applicants generally anticipate some level of negotiation, we expect that applicants who apply to positions with narrower pay ranges will negotiate less assertively than those applying to positions with wider pay ranges.

A considerable body of negotiation research demonstrates that initial numerical information, such as first offers, serves as powerful anchors, substantially influencing negotiators' subsequent expectations, judgments, and counteroffers (see Galinsky et al., 2009, for a review). Such anchors often act as implicit benchmarks or reference points, influencing negotiators' perceptions of attainable outcomes and reasonable settlement terms (Kahneman, 1992; Thompson, 1995). In a hiring context, the width of a disclosed pay range can similarly provide salient numerical anchors (i.e.,

minimum and maximum salaries) that candidates may use to form expectations and reference points for acceptable compensation outcomes (Ames & Mason, 2015; Janiszewski & Uy, 2008). Narrower pay ranges convey a constrained bargaining zone, lowering applicants' aspirations by implicitly signaling limited room for negotiation. Empirical evidence supports this notion, showing that when negotiators encounter precise offers (e.g., \$45,250 vs. \$45,000), which signal a lack of flexibility, they tend to adjust their aspirations downward, forming more modest expectations about achievable outcomes (Lee et al., 2018; Loschelder et al., 2014; Mason et al., 2013). In contrast, wide pay ranges likely convey greater flexibility and a larger perceived bargaining zone with more room for negotiation. Knowing that the employer might pay up to the posted maximum provides a salient reference point for what might be attainable. Consequently, the higher upper bound of a wide range serves as a more ambitious anchor, prompting candidates to set elevated salary expectations and aspirations (cf. Janiszewski & Uy, 2008). While wide ranges also introduce greater downside uncertainty prior to an application, we reason that once a candidate receives a concrete baseline salary offer, their attention shifts toward evaluating potential gains above that floor, making the upper bound of the pay range a particularly salient anchor.

These differences in anchored expectations can shape applicants' satisfaction with initial salary offers and, in turn, their subsequent negotiation behavior because individuals appraise their outcomes by comparing them to prior expectations (Novemsky & Schweitzer, 2004). When the posted pay range is narrow (e.g., \$55,000–\$75,000), a midpoint offer (e.g., \$65,000) sits relatively close to the upper bound (e.g., \$75,000), suggesting that only limited additional compensation is realistically attainable. Consequently, such offers are likely perceived as relatively favorable, as they align with applicants' anchored expectations and lead them to experience higher satisfaction (Novemsky & Schweitzer, 2004; Thompson, 1995). In line with this reasoning, Kristensen and Gärling (1997) found that negotiators whose initial reference points aligned closely with received offers exhibited greater satisfaction and were less inclined to press further in the negotiation.

In contrast, if the disclosed pay range is wide (e.g., \$40,000–\$90,000), a midpoint offer (e.g., \$65,000) stands markedly farther from the maximum advertised salary (e.g., \$90,000). Applicants facing such offers are likely to experience expectancy disconfirmation (Oliver et al., 1994; Ordóñez et al., 2000)—that is, perceiving the offer as disappointing relative to their anchored high-end expectation. The discrepancy between their internal reference point (influenced by the upper bound of the range) and the employer's initial offer creates a sense of having left money on the table, motivating applicants to negotiate more assertively (Galinsky et al., 2009; Thompson, 1995). Indeed, prior studies illustrate that negotiators respond more aggressively when initial offers fall short of their reference points, persistently seeking improved outcomes and proposing higher counteroffers (Kristensen & Gärling, 1997; Thompson, 1995; White & Neale, 1994).

Therefore, we propose the following hypothesis:

*Hypothesis 2:* Applicants for positions with narrower (vs. wider) pay ranges will exhibit less assertive negotiation behaviors in response to a midpoint offer, including greater satisfaction with the offer, a lower likelihood of initiating negotiation, and making lower counteroffers.

Although our studies do not directly measure salary outcomes, extensive research has demonstrated that the assertiveness of initial offers is highly predictive of deal terms, often accounting for up to 85% of the variance in final outcomes (Galinsky & Mussweiler, 2001; Schaefer et al., 2016; Van Poucke & Buelens, 2002). Therefore, it is reasonable to expect that applicants who negotiate more assertively are likely to achieve more favorable salary outcomes.

### Overview of Studies

We tested our hypotheses about how pay range transparency shapes gendered job application and negotiation behaviors through four studies, spanning archival data and experiments with both prospective and actual job seekers. Study 1 leveraged a large archival data set of U.S. job postings to document substantial variability in pay range sizes across organizations and examined the relationship between pay range size and gender representation within organizations. Study 2 recruited U.S. upper-level undergraduates poised to enter the labor market to examine whether women show a stronger preference for narrower ranges than men, whether this difference is driven by risk preference, and how pay range preferences shape negotiation assertiveness. Study 3 extended these findings to a field experiment with actual job seekers, enabling us to observe real application decisions made in response to different pay range disclosures. Finally, Study 4 introduced an experimental intervention that explicitly clarified typical salary outcomes and how compensation is determined, testing whether reducing uncertainty could lessen women's stronger preference for narrower ranges and mitigate the gender gap in application and negotiation behaviors. In Studies 2 and 4, where we examined negotiation behaviors, all participants received initial offers at the midpoint of their selected pay range to ensure comparability across pay range choices and isolate the effect of range width on negotiation assertiveness.

### Transparency and Openness

We adhered to the *Journal of Applied Psychology* methodological checklist and fully described our sampling procedures, data exclusions, and study measures. Studies 2–4 were preregistered (Study 2: <https://aspredicted.org/k37h-7np6.pdf>; Study 3: <https://aspredicted.org/966m-r9wf.pdf>; Study 4: <https://aspredicted.org/vrsh-fsfq.pdf>). Because Study 1 used proprietary data, it was not preregistered, and the data cannot be shared. Data and analysis code for Studies 2–4 are available on the Open Science Framework (<https://osf.io/6n3fq>). Analyses were conducted using R (Study 1), Stata 18, and SPSS 29 (Studies 2–4). Studies 2 and 4 were approved as exempt by the Cornell University Institutional Review Board for Human Participants (IRB0147350, “Pay Range Transparency Study”), and Study 3 was approved as exempt by the Cornell University Institutional Review Board for Human Participants (IRB0147639, “Pay Transparency Experiment”).

### Study 1: Archival Analysis of Pay Range Variability and Gender Representation in Organizations

In Study 1, we analyzed a large archival data set of U.S. job postings with two primary objectives. First, we examined the extent of pay range variation across actual job advertisements. By documenting the prevalence and variability of pay range sizes, we

aimed to establish the practical significance of our research and assess whether pay range variability is indeed a salient feature of the contemporary job market. Second, we explored whether organizations with narrower disclosed pay ranges differ in their representation of female employees compared to those with wider ranges. Prior research has shown that job application patterns can influence gender representation within organizations (e.g., Huffman, 1999; Koch et al., 2015; Milkman et al., 2015). If women indeed prefer jobs advertising narrower pay ranges, as hypothesized, this may be reflected in a lower representation of women at firms that post wider pay ranges.

While we do not view this analysis as a direct test of our hypotheses given the absence of proprietary application data, its exploratory findings offer a valuable descriptive backdrop for our subsequent studies. Specifically, linking pay range size with gender representation provides initial insights into the potential real-world ramifications of pay range transparency and highlights how women's application preferences may function as one “pathway” through which gender imbalances emerge in organizations (Milkman et al., 2015).

### Method

#### Data and Sample

We analyzed job postings and employment data obtained from Revelio Labs, which aggregates and standardizes publicly available data from sources such as LinkedIn, Glassdoor, Indeed, and other job boards. This data set provides detailed information on job postings, employee profiles, and organizational characteristics across various industries in the United States. To assess the extent of pay range variability, we examined job postings and organization-level data from January 2020 to December 2024, during which pay range transparency laws were increasingly implemented across the United States.

**Pay Range Size (Job Posting Level).** We focused exclusively on job postings with annual salary data, excluding those with salaries expressed in other formats (e.g., monthly, weekly) to avoid potential biases associated with converting pay periods to an annual basis. Since annual salary data comprised the majority of our observations, this focus also ensured that our analysis leveraged the most substantial and reliable portion of the data set.

We calculated the pay range size by subtracting the lower bound from the upper bound of each salary range. For example, a job posting with a salary range of \$87,000–\$113,000 yielded a pay range size of \$26,000. When a posting listed only a single salary figure (e.g., \$98,500), we recorded the pay range size as zero.

#### Variation in Pay Ranges Across Job Postings

Table 1 presents descriptive statistics for pay ranges, both including and excluding postings with zero pay ranges, as well as estimated salaries based on Revelio's imputed employee income estimates for all job postings in the data set.

Our analysis of approximately 10 million postings revealed an average pay range size of \$38,108, with a substantial standard deviation of \$66,437. When excluding postings that reported no range (i.e., zero pay range), the average pay range rose to \$66,618, with an even larger standard deviation of \$76,267. These statistics

**Table 1***Descriptive Statistics for Pay Ranges and Estimated Salary in U.S. Job Postings (Study 1)*

Variable	<i>M</i>	<i>SD</i>	Minimum	First quartile	<i>Mdn</i>	Third quartile	Maximum	No. of observations
Pay range, including postings with zero pay range (unit: \$)	38,108	66,437	0	0	11,950	60,000	9,915,013	9,955,426
Pay range, excluding postings with zero pay range (unit: \$)	66,618	76,267	100	21,418	52,800	90,000	9,915,013	5,694,932
Estimated salary (unit: \$)	77,626	47,627	0	46,574	65,911	95,534	990,000	9,833,757

illustrate the considerable variation in reported pay ranges among U.S. job postings from January 2020 to December 2024.

### **Relationship Between Pay Range Size and Gender Representation**

To examine the relationship between pay range size and gender representation within organizations, we shifted our analysis from the job posting level to the firm-state-job category-year level. This unit of analysis allows us to control for variations in job complexity across job categories as well as state-level differences (e.g., minimum wages and average incomes). To ensure the reliability and completeness of our data, we focused on firm-state-job category-year level observations that had at least one job posting disclosing a pay range and provided data on the organization's gender composition during the study period (2020 and 2024). In addition, we limited our sample to organizations that had at least one company review available in the Revelio data set during the study period. Company reviews, often sourced from platforms like Glassdoor, indicate active employee engagement and suggest that the organization has a significant online presence. Finally, because our theoretical focus is on comparing pay range widths, we restricted our analysis to firms with an average pay range greater than zero.

Our final sample consisted of 63,989 firm-state-job category-year observations from 2,923 unique firms across the United States, covering a diverse range of industries, states, job categories (e.g., finance, engineer, sales, operations), and organizational sizes. The primary variables in our analysis are the average pay range size and the number of female employees.

**Independent Variable: Pay Range Size.** As previously described, the pay range size was calculated by taking the difference between the upper and lower bounds of salary ranges in job postings from the Revelio data set. We then computed the average pay range size by taking the mean of all pay ranges across job postings for each firm-state-job category-year. This measure captures the average salary range within a firm in a given state for a specific job category in a given year. Because the Revelio data set's maximum estimated annual salary was \$990,000, any pay range exceeding \$10 million was deemed implausible and excluded from the analysis. We also removed nonzero annual pay ranges below \$100, as these entries were likely artifacts of monthly or daily wages misclassified as annual salaries.

**Dependent Variable: Number of Female Employees.** We measured gender representation within each firm in a given state for a specific job category in each year by calculating the number of female employees. To construct this measure, we used the "predicted gender" variable from the Revelio data set, which is based on

a probabilistic model trained on the U.S. Social Security Administration data. For instance, if 90% of individuals with a given name are female and 10% are male, the model assigns a 0.9 probability of being female and a 0.1 probability of being male, ultimately classifying each individual as female or male (Revelio Labs, n.d.). We aggregated the counts of individuals classified as female to form our dependent variable and included company size (total number of employees) as a covariate in all models. This specification allows us to examine the relationship between pay range size and female representation while accounting for company size.

Although a growing number of studies using the Revelio data set have employed this name-to-gender inference method (e.g., Amer et al., 2024; Zhang et al., 2025), we acknowledge that it has the potential to misclassify ambiguous or culturally variable names and thus carries inherent limitations.

**Control Variables.** We controlled for additional factors that might be correlated with pay range size and gender representation. *Company size* was measured as the total number of employees for each firm by year, derived from Revelio's position and user databases. We aggregated individual employee records, using start and end dates, to calculate each firm's annual size. *Average salary* was calculated by aggregating Revelio's estimated salaries for individual positions at the firm-state-job category-year level. This measure serves as a control for salary levels, which may correlate with gender representation. Additionally, we included fixed effects for *industry, state, job category, firm,* and *year* to account for variation across these dimensions.

**Analytical Strategy.** We tested whether narrower pay ranges are associated with a higher representation of female employees within organizations. We estimated two different models—a firm fixed-effects model and a firm random-effects model. A firm fixed-effects model controls for unobserved, time-invariant characteristics specific to each firm, addressing omitted variable bias by isolating within-firm variation. In contrast, a random-effects model accounts for each firm's characteristics by estimating a random intercept, assuming that these firm-specific effects are uncorrelated with the independent variables. While the fixed-effects model is particularly useful for mitigating omitted variable bias, the random-effects model allows for more generalizable results across a larger population when omitted variable bias is less of a concern.

## **Results**

Table 2 presents summary statistics for the firm-state-job category-year level sample of 63,989 observations.

**Table 2**  
*Descriptive Statistics for Firm-State-Job Category-Year Level Variables (Study 1)*

Variable	<i>M</i>	<i>SD</i>	Minimum	First quartile	<i>Mdn</i>	Third quartile	Maximum
Number of female employees	85	364	0	3	12	48	14,313
Firm pay range (unit: \$)	61,042	60,055	8	20,000	45,419	83,600	1,825,600
Firm average salary (unit: \$)	88,078	40,301	137.5	59,922	80,515	107,500	707,000
Number of employees	203	973	1	8	30	203	60,905

Note. All  $N = 63,989$ .

Regression results examining the relation between pay range size and gender representation (Table 3) indicate a strong negative association between pay range size and the number of female employees (Models 1 and 2). At the firm-state-job category-year level, the average number of female employees per firm-state-job category-year is 85 (median = 12), and a one standard deviation increase in pay range size (\$60,055) is associated with a 3.25%–4.42% decrease in the number of female employees relative to that average. For Model 1 and Model 2, the Hausman test statistic is  $\chi^2 = 591.36$ ,  $p < 2.2e^{-16}$ , suggesting that the fixed-effects model (Model 2) provides consistent estimates.

## Discussion

Our archival analysis of nearly 10 million job postings indicates that U.S. organizations vary markedly in the width of their advertised pay ranges, reflecting the considerable latitude employers have in setting and disclosing salaries. Notably, our analysis of over 60,000 firm-state-job category-year observations between 2020 and 2024 revealed a negative association between pay range size and female representation within organizations. While we cannot establish causality in the absence of direct application data, this

pattern is consistent with our proposition that women, on average, may perceive wider pay ranges as creating greater compensation uncertainty and thus be deterred from applying for positions that post them. Although our models control for company size and average salary—factors that are themselves associated with gender representation—and include firm fixed effects to account for time-invariant characteristics, we acknowledge that systematic differences in how firms approach pay range reporting may contribute to the observed patterns. Our results nonetheless highlight an empirical pattern aligned with the notion that women’s risk aversion and preferences for more certain pay could influence an organization’s workforce composition. Building on these insights, we conducted Studies 2 through 4 to directly test whether and how pay range size drives gendered job application and negotiation behaviors.

## Study 2: Pay Range Preferences and Negotiation Behaviors Among Upper-Level Undergraduates

We recruited upper-level undergraduates about to enter the workforce to examine whether women have a greater preference for job postings with narrower pay ranges compared to men (Hypothesis 1a) and whether individual differences in risk preference account for this gender difference (Hypothesis 1b). Because these participants were actively preparing for job searches, they offered a realistic context for testing our hypothesized gender differences at an early stage of employment decision making. In addition, we examined whether applicants who prefer narrower pay ranges exhibit less assertive negotiation behaviors (Hypothesis 2), which could suggest downstream implications for their career earnings. To enhance ecological validity, we tailored the study to closely reflect job offers that these students might encounter in their prospective industries. Informed by a pilot study that established realistic and industry-specific salary ranges, we designed job postings that reflected genuine market conditions.

## Method

### Participants

A total of 151 undergraduate juniors and seniors from Cornell University participated in the study in exchange for a 1-in-10 chance to win a \$50 Amazon gift card. We excluded one participant who identified as gender nonbinary, resulting in a final sample of 150 participants ( $M_{\text{age}} = 20.92$  years,  $SD_{\text{age}} = 2.74$ ; 58.7% female). Throughout our studies, we focus on participants who identify as male or female due to insufficient data on individuals who identify as gender nonbinary or gender nonconforming or who do not disclose their gender.

**Table 3**  
*Relationship Between Pay Range Size and Number of Female Employees at the Firm-State-Job Category-Year Level (Study 1)*

Variable	Dependent variable: Number of female employees	
	(a) OLS	(b) OLS
Firm pay range (unit: \$10,000)	−0.460** (0.186)	−0.625** (0.244)
Firm average salary (unit: \$10,000)	−0.975** (0.391)	−0.916** (0.456)
Number of employees	0.322*** (0.030)	0.320*** (0.030)
Constant	8.802 (13.368)	
Firm effects	<i>random</i>	<i>fixed</i>
Job category fixed effects	<i>included</i>	<i>included</i>
State fixed effects	<i>included</i>	<i>included</i>
Year fixed effects	<i>included</i>	<i>included</i>
Industry fixed effects	<i>included</i>	<i>included</i>
Observations	63,989	63,989
$R^2$	.809	.809
Adjusted $R^2$	.808	.8
$F$ statistics	270,007.200***	4,038.419***

Note. The sample is restricted to firm-state-job category-year observations with an average pay range greater than zero and at least one company review available between 2020 and 2024. Italicized entries indicate model specifications. Values in parentheses are standard errors clustered at the firm level. OLS = ordinary least squares.

\*\*  $p < .01$ . \*\*\*  $p < .001$ .

## Procedure and Measures

At the beginning of the survey, participants were informed that the purpose of the study was to understand how employers' disclosure of different pay ranges affects job applications and negotiation decisions. Participants began by selecting the industry they anticipated entering upon graduation. Recognizing that some participants may not have made a definitive decision or that the provided categories might not perfectly align with their intended industry, we encouraged them to select the option that most closely represented their career aspirations. The industry options, based on the university's career services employment report, included financial services, consulting, technology, manufacturing, law, labor, and other.

After selecting their industry, participants were asked to imagine they were searching for postgraduation job opportunities. They were informed that several comparable job listings in New York City matched their criteria. To provide realistic context, we presented the median starting salaries for recent graduates in each selected industry based on actual university employment data: finance or consulting = \$75,000; technology, manufacturing, or other = \$65,000; law or labor = \$55,000. Additionally, participants were told that New York had recently enacted a law requiring pay range disclosures and that the job postings they would view complied with this regulation by displaying salary ranges specific to each position.

**Pay Range Size Determination.** To ensure that the salary ranges used in the study were perceived as realistic and appropriate, we conducted a large-scale pilot study to determine the narrow and wide pay ranges for each industry. A total of 1,983 participants recruited via Connect completed a survey in which they were asked to determine appropriate salary ranges for job postings ( $M_{\text{age}} = 40.57$  years,  $SD_{\text{age}} = 12.81$ ; 49.5% female).

In the pilot study, participants were instructed to imagine they were working at a firm located in New York City and were responsible for setting an appropriate salary range to post publicly on job listings for new hires. They were presented with three median starting salaries—\$75,000, \$65,000, and \$55,000—in random order. While these figures corresponded to actual industry categories in our main study (finance/consulting at \$75,000, technology/manufacturing/other at \$65,000, and law/labor at \$55,000), we did not provide specific industry information to participants to avoid potential biases in their responses.

For each median salary, participants were asked the following:

For this position, the median starting salary is \$[X]. What do you think is the appropriate salary range to post as part of a job posting for new hires? ... The information you enter below will be displayed on the job posting as follows: "This position pays from [LOW END of range] to [HIGH END of range]."

Participants entered lower and upper bounds for each median salary. To determine the narrow pay ranges (used for Posting B), we calculated the median of participants' lower and upper bounds. For the wide pay ranges (used for Posting C), we used the 5th percentile of the lower bounds and the 95th percentile of the upper bounds, capturing a broader range within realistic bounds. Table 4 presents the resulting pay ranges for each median salary. The findings remained robust after winsorizing the top and bottom 1% and 5% of values.

**Application Decision.** Participants viewed three job postings corresponding to their selected industry, each displaying salary ranges based on values derived from the pilot study (see Table 4). The postings included (a) a no-range option with a single salary equal to the industry median, (b) a narrow range, and (c) a wide range. We included the no-range option as an exploratory benchmark given its prevalence in real-world postings (43% in our Study 1 sample), though we do not advance formal hypotheses about it since such postings lack the variability in potential earnings central to our theoretical focus on compensation uncertainty. Our primary comparisons therefore center on the narrow versus wide ranges.

Participants were asked to select the job posting they would most likely apply for, assuming all other job characteristics were identical.

**Risk Preference.** Consistent with prior research on survey-based risk measures (Dohmen et al., 2011; Frey et al., 2021), we adopted a single-item measure of risk preference that has demonstrated acceptable reliability and strong correlations with more elaborate scales capturing real-world risk-taking behaviors. Recent psychometric evidence indicates that single-item measures can offer acceptable reliability and validity when the target construct is reasonably narrow or captured by a straightforward question (Matthews et al., 2022). Moreover, survey-based single-item measures of risk tolerance have demonstrated robust predictive validity for subsequent economic and career decisions (Cortés et al., 2023; Dohmen et al., 2011).

Accordingly, we assessed participants' general risk preference using the following single-item measure (Frey et al., 2021): "Do you generally consider yourself a person who is willing to take risks or a person who tries to avoid risks?" (1 = *not at all willing to take risks* to 5 = *very willing to take risks*).

**Negotiation Behavior.** After participants made their application decision, they were informed that their application had been processed and received a salary offer from the hiring manager. Regardless of whether they had chosen the no-range, narrow range, or wide range option, the offer was set at the industry median for their selected job posting (i.e., \$75,000, \$65,000, or \$55,000, depending on the industry). This standardized offer across all options

**Table 4**  
Pay Ranges by Selected Industry Category (Study 2)

Industry	No range (Posting A)	Narrow range (Posting B)	Wide range (Posting C)
Finance or consulting	\$75,000	\$65,000–\$85,000	\$45,000–\$105,000
Technology, manufacturing, or other	\$65,000	\$55,000–\$75,000	\$40,000–\$90,000
Law/labor	\$55,000	\$45,000–\$65,000	\$30,000–\$80,000

allowed us to examine how negotiation behaviors might differ based on participants' pay range preferences.

Participants then responded to measures capturing their negotiation intentions and assertiveness. Specifically, they reported their *offer satisfaction* ("How satisfied do you feel about the manager's offer?"; 1 = *extremely dissatisfied* to 5 = *extremely satisfied*) and their *likelihood of negotiating* for a higher salary ("How likely are you to try to negotiate for a higher salary?"; 1 = *not at all likely to negotiate for a higher salary* to 5 = *extremely likely to negotiate for a higher salary*). In addition, they specified a *counteroffer* value in response to "If you were in this situation and had to make a counteroffer to the manager's salary offer with a single price, what salary would you counter with?"

We also conducted exploratory analyses to examine whether there were overall gender differences in counteroffer values, consistent with prior research on gender and negotiation behaviors (e.g., Babcock & Laschever, 2003; Bowles et al., 2005). Furthermore, we explored whether these gender differences persisted within each pay range application choice.

We did not include additional control variables in our analyses due to the relative homogeneity of our sample, which comprised upper-level undergraduate students from the same university cohort. This homogeneity reduces the likelihood of confounding effects, making additional controls less critical for the reliability of our findings (Bernerth & Aguinis, 2016; Spector & Brannick, 2011). All analyses were conducted across the combined sample of industries to maintain adequate statistical power. While the pattern of results was consistent within each industry subgroup, the smaller sample sizes limited the reliability of industry-specific analyses; therefore, we report the results collapsed across industries. Importantly, when we tested our models controlling for industry sector, the pattern and significance of all key findings remained substantively unchanged.

## Results

### Application Decision

Figure 1 illustrates the distribution of participants' choices across the three pay range options—no range, narrow range, and wide range.

To examine whether women prefer the narrower pay range more than men do, we first conducted a multinomial logistic regression with pay range choice as the dependent variable and gender as the independent variable, using the narrow pay range as the reference category. The results indicated that women were significantly more likely than men to prefer the narrow pay range over the no range ( $b = -1.048$ ,  $SE = 0.452$ ,  $z = -2.32$ ,  $p = .020$ ) and the wide range ( $b = -0.841$ ,  $SE = 0.385$ ,  $z = -2.18$ ,  $p = .029$ ).<sup>2</sup>

To focus specifically on the contrast between the narrow and wide pay ranges, we conducted a binary logistic regression excluding the no-range option ( $N = 121$ ; narrow range = 1, wide range = 0). The analysis showed that women were more than twice as likely as men to prefer the narrow pay range over the wide pay range ( $b = 0.84$ ,  $SE = 0.39$ ,  $z = 2.18$ ,  $p = .029$ , odds ratio = 2.32). These findings support Hypothesis 1a, indicating that women show a stronger preference for jobs with narrower pay ranges compared to men.

### Risk Preference

We examined whether individual differences in risk preference accounted for women's greater likelihood of preferring narrower (vs. wider) pay ranges (Hypothesis 1b). This analysis was conducted on the subsample of participants ( $N = 121$ ) who chose either the narrow or wide range posting.

As expected, women reported significantly lower risk preference than men ( $b = -0.66$ ,  $SE = 0.17$ ,  $t = -3.91$ ,  $p < .001$ ). To test for mediation, we used a bootstrapping procedure with 5,000 samples to estimate the indirect effect (PROCESS Model 4; Hayes, 2022). When risk preference was included in the logistic regression model predicting pay range choice, the direct effect of gender became nonsignificant ( $b = 0.56$ ,  $SE = 0.41$ ,  $z = 1.37$ ,  $p = .171$ ), while risk preference remained a significant negative predictor of choosing the narrow range ( $b = -0.48$ ,  $SE = 0.23$ ,  $z = -2.10$ ,  $p = .036$ ). In addition, the analysis revealed a significant indirect effect of gender on pay range preference through risk preference (indirect effect = 0.31,  $SE = 0.18$ , 95% CI [0.035, 0.725]). These results support Hypothesis 1b, indicating that women's stronger preference for narrower pay ranges is explained by their greater aversion to risk. Table 5 provides the full regression results for this mediation model.

### Negotiation Behavior

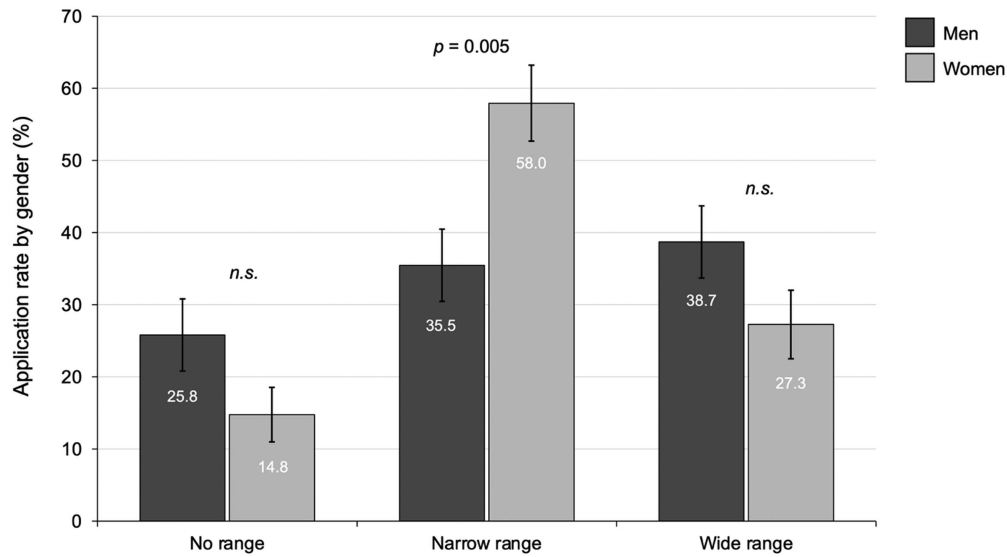
We next investigated whether applicants who chose the narrow pay range exhibited less assertive negotiation behaviors compared to those who chose the wide pay range (Hypothesis 2; see Table 6). Participants who chose the narrow pay range reported higher *offer satisfaction* than those who selected the wide range ( $b = 0.86$ ,  $SE = 0.17$ ,  $t = 5.01$ ,  $p < .001$ ) and lower *offer satisfaction* than those who selected the no range ( $b = -0.62$ ,  $SE = 0.20$ ,  $t = -3.08$ ,  $p = .002$ ).<sup>3</sup>

For negotiation intentions, participants who chose the narrow pay range indicated a lower *likelihood of negotiating* for a higher salary than those who chose the wide range ( $b = -0.70$ ,  $SE = 0.19$ ,  $t = -3.77$ ,  $p < .001$ ) and a higher *likelihood of negotiating* than those who chose the no range ( $b = 0.73$ ,  $SE = 0.22$ ,  $t = 3.35$ ,  $p = .001$ ). Furthermore, participants who selected the narrow pay range made lower *counteroffers* compared to those who selected the wide range ( $b = -\$9,933.84$ ,  $SE = \$2,037.57$ ,  $t = -4.88$ ,  $p < .001$ ), but their counteroffers did not significantly differ from those who selected the no range ( $b = \$2,534.72$ ,  $SE = \$2,391.51$ ,  $t = 1.06$ ,  $p = .291$ ). These findings support Hypothesis 2, indicating that applicants who select narrower pay ranges engage in less assertive negotiation behaviors than those who select wider ranges.

<sup>2</sup> The narrow pay range serves as the reference category in this multinomial logistic regression, resulting in negative coefficients for the no-range and wide range comparisons. These coefficients indicate higher odds of selecting the narrow range.

<sup>3</sup> Across all negotiation behavior analyses, the narrow pay range serves as the reference category. As a result, negative coefficients indicate lower levels of the outcome variable (e.g., offer satisfaction, likelihood to negotiate) relative to the narrow pay range.

**Figure 1**  
Application Rates by Pay Range and Gender (Study 2)



*Note.* This figure shows application rates for each pay range by gender aggregated across industries. Gender differences within each pay range were tested using multinomial logistic regression, followed by pairwise comparisons of predicted probabilities. Error bars represent  $\pm$  one standard error. *n.s.* = not significant.

### Exploratory Analysis of Gender Differences Within Pay Range Choices

We conducted exploratory analyses to examine whether gender differences in negotiation behaviors persisted within each pay range choice. Overall, women made lower counteroffers than men ( $b = -\$4,392.47$ ,  $SE = \$1,914.08$ ,  $t = -2.29$ ,  $p = .023$ ). However, when we examined gender differences within each pay range choice, we found no significant gender differences in counteroffer amounts (no range:  $b = \$2,245.19$ ,  $SE = \$4,068.62$ ,  $t = 0.55$ ,  $p = .586$ ; narrow range:  $b = -\$4,310.16$ ,  $SE = \$2,520.94$ ,  $t = -1.71$ ,  $p = .092$ ; wide range:  $b = -\$4,663.04$ ,  $SE = \$3,537.26$ ,  $t = -1.32$ ,  $p = .194$ ). These results suggest that the overall gender difference in counteroffer amounts may be, at least partly, attributable to differences in pay range preferences (i.e., a pay range sorting effect) rather than to inherent differences in negotiation behaviors, regardless of pay range choice.

### Discussion

In Study 2 with upper-level undergraduates poised to enter the job market, we found that women were significantly more likely than men to prefer job postings with narrower pay ranges, a preference largely attributable to their lower risk preference. Furthermore, those who opted for narrower pay ranges demonstrated less assertive negotiation behaviors, suggesting that pay range preference helps explain the overall gender gap in negotiation outcomes. Indeed, our exploratory analyses showed that gender differences in negotiation behaviors were minimal among individuals who selected the same pay range size.

### Study 3: Field Experiment Examining Real Job Application Decisions

To strengthen the external validity of our findings, we conducted a field experiment in which actual job seekers considered a genuine

**Table 5**  
Regression Results for Mediation Analysis of Pay Range Preference (Study 2)

Variable	Model 1 Risk preference	Model 2 Pay range preference (1 = narrow)
Gender (1 = female)	-0.66 (0.17)***	0.56 (0.41)
Risk preference		-0.48 (0.23)*
Constant	3.87 (0.13)***	1.76 (0.93) <sup>†</sup>
$R^2$	.11	
Nagelkerke $R^2$		.10

*Note.*  $N = 121$ . This analysis includes only participants who chose the narrow or wide pay range options. Unstandardized coefficients are reported with standard errors in parentheses. Model 1 is an ordinary least squares regression. Model 2 is a binary logistic regression.

\*  $p < .05$ . \*\*\*  $p < .001$ . <sup>†</sup>  $p < .10$ .

**Table 6**  
*Means (Standard Deviations) and Results of Planned Contrasts of Offer Satisfaction, Negotiation Likelihood, and Counteroffer by Applied Pay Range (Study 2)*

Measure	No range	Narrow range	Wide range
Offer satisfaction (1–5 scale)	3.90 (0.77) <sub>c</sub>	3.27 (0.87) <sub>b</sub>	2.42 (1.07) <sub>a</sub>
Negotiation likelihood (1–5 scale)	2.97 (1.12) <sub>a</sub>	3.70 (1.01) <sub>b</sub>	4.40 (0.89) <sub>c</sub>
Counteroffer (\$)	75,069 (10,760) <sub>a</sub>	72,534 (10,014) <sub>a</sub>	82,468 (12,219) <sub>b</sub>

*Note.* Means that do not share a common subscript letter differ significantly from each other at  $p < .05$ , based on planned contrasts within a one-way analysis of variance. Standard deviations are in parentheses.

part-time research assistant position. While Study 2 offered important insights into gender differences in pay range preferences and negotiation behaviors, it relied on a hypothetical setting, which may not fully capture real-world application decisions. In Study 3, participants were randomly assigned to view a single job ad that was identical in all respects except for whether it featured a narrow or wide pay range, reflecting how candidates often evaluate individual postings rather than comparing multiple options simultaneously. We hypothesized that women would be more likely than men to apply when the job disclosed a narrow pay range and that lower risk preference would help explain this difference. Because we sought to preserve the realism of a genuine hiring context, we did not measure negotiation behaviors, as introducing a hypothetical negotiation could undermine participants' perceptions of authenticity. Moreover, many real hiring processes—particularly for part-time or research assistant roles—do not guarantee a formal negotiation at the initial application stage. Thus, Study 3 focused on application decisions to examine whether previously observed gender differences in responses to pay range disclosures would generalize to a more naturalistic setting.

## Method

### *Participants and Procedure*

Following the design and materials of Castilla and Rho (2023, Study 2), we advertised a real “research assistant” position targeting actual job seekers on an online worker platform, Connect. Previous studies indicate that participants recruited through online labor market platforms, such as Connect and Amazon Mechanical Turk, generally have extensive experience applying for jobs and are often seeking new ones (Litman et al., 2017; Woo et al., 2015). Furthermore, research assistant positions are widely viewed as gender-neutral (Castilla & Rho, 2023; U.S. Census Bureau, 2017), which reduces the likelihood of gender bias influencing job appeal.

This field experiment unfolded in two phases. In the first phase, we posted a short survey to recruit potential job seekers. Participants provided information about their employment status and demographics and completed the same risk preference measure as Study 2. At the end of this survey, all participants received a completion code for payment, followed by a brief advertisement for a part-time employment opportunity at a university. Participants read,

Before you go ... are you looking for a job?

They were then presented with the following description:

Our research team at [university name] is always looking for project assistants to help us with our research projects on organizations. No previous experience is necessary for the job. No relocation is required

as work can be completed online. Would you be interested in learning more about the position? If interested, please select “yes” to proceed to the next page where you will be presented with the formal job posting.

At this point, participants had the option to proceed to the second phase by selecting “Yes, tell me more” or to conclude the survey by selecting “No, please end the survey.” Of the 1,699 participants who completed the initial survey, 1,148 individuals (67.6%;  $M_{\text{age}} = 41.16$  years,  $SD_{\text{age}} = 13.06$ ; 53.7% female) opted to learn more about the job and proceeded to the next phase.

In the second phase, participants were randomly assigned to view a job posting that was identical in all respects except for the disclosed pay range in the compensation section. In the narrow pay range condition, the compensation was listed as “\$200 to \$300,” while in the wide pay range condition, it was listed as “\$50 to \$450” (see Figure 2).

After reviewing the job posting, participants indicated their intention to apply. Those who chose to apply were prompted to provide their contact information and had the option to submit their resume or curriculum vitae. Participants who opted not to apply simply concluded the survey. Among the 1,148 participants who viewed the job advertisement, 862 individuals (75.1%) chose to apply for the position. All participants were fully debriefed upon completion of the survey.

### *Measures*

**Application Decision.** The primary dependent variable was participants' decision to apply for the position (1 = *applied*, 0 = *did not apply*).

**Risk Preference.** Risk preference was measured using the same single-item measure employed in Study 2: “Do you generally consider yourself a person who is willing to take risks or a person who tries to avoid risks?” (1 = *not at all willing to take risks* to 5 = *very willing to take risks*).

**Control Variables.** Consistent with previous research on gender differences in job application preferences (e.g., Castilla & Rho, 2023; Leibbrandt & List, 2015), we controlled for participant age, education level, employment status, current job search status, and work experience.

## Results

### *Application Decision*

We first examined whether gender and pay range size influenced participants' decisions to apply. A logistic regression analysis

**Figure 2**  
*Job Post Displaying Experimental Manipulation of Narrow Range [Wide Range] (Study 3)*



revealed a significant interaction between gender and pay range condition ( $b = -0.63$ ,  $SE = 0.29$ ,  $z = -2.21$ ,  $p = .027$ ; see Table 7, Model 2 for full model details). To probe this interaction, we examined the simple effects of gender within each condition. Consistent with Hypothesis 1a, in the narrow pay range condition,

women were significantly more likely to apply than men ( $b = 0.76$ ,  $SE = 0.21$ ,  $z = 3.68$ ,  $p < .001$ ), with application rates of 79.5% for women and 68.9% for men. In contrast, in the wide pay range condition, there was no significant gender difference in application rates ( $b = 0.12$ ,  $SE = 0.21$ ,  $z = 0.59$ ,  $p = .556$ ), with application rates

**Table 7**  
*Regression Results for Moderated Mediation Analysis of Application Decision (Study 3)*

Variable	Model 1 Risk preference	Model 2 Application decision (1 = applied)
Gender (1 = female)	-0.40 (0.09)***	0.76 (0.21)***
Pay range condition (1 = wide)	0.02 (0.10)	0.39 (0.20) <sup>†</sup>
Gender × Pay Range Condition	0.09 (0.13)	-0.63 (0.29)*
Risk preference		0.15 (0.07)*
Age	-0.02 (0.01)**	0.02 (0.01)
Education (“some high school or less” as reference)		
High school diploma	0.21 (0.36)	2.38 (0.83)**
Some college	0.33 (0.36)	2.62 (0.83)***
Associate’s	0.24 (0.36)	2.78 (0.84)***
Bachelor’s	0.42 (0.35)	2.76 (0.82)***
Graduate	0.50 (0.36)	2.50 (0.83)**
Prefer not to say	0.74 (0.85)	1.05 (1.64)
Employment status (“not employed” as reference)		
Full-time	0.17 (0.09) <sup>†</sup>	0.21 (0.19)
Part-time	0.13 (0.10)	0.06 (0.23)
Job search status (“not searching” as reference)		
Yes, full-time	0.28 (0.08)***	1.08 (0.20)***
Yes, part-time	0.25 (0.11)*	0.93 (0.25)***
Maybe	0.20 (0.10)*	0.83 (0.22)***
Work experience (years)	0.02 (0.01)**	-0.02 (0.01) <sup>†</sup>
Constant	3.09 (0.39)***	-3.44 (0.93)***
R <sup>2</sup>	.07	
Nagelkerke R <sup>2</sup>		.11

*Note.*  $N = 1,148$ . Unstandardized coefficients from PROCESS Model 8 are reported with standard errors in parentheses. Model 1 is an ordinary least squares regression. Model 2 is a binary logistic regression.  
 \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . <sup>†</sup>  $p < .1$ .

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of 75.2% for women and 76.1% for men. These results are illustrated in Figure 3.

**Risk Preference**

To test the mediating role of risk preference (Hypothesis 1b), we conducted a moderated mediation analysis (PROCESS Model 8; Hayes, 2022), examining whether the indirect effect of gender on application decisions through risk preference was conditional on the pay range (see Table 7).

Consistent with Study 2, women reported lower risk preference than men ( $b = -0.40, SE = 0.092, t = -4.40, p < .001$ ). The overall test for moderated mediation was not significant (index = 0.014,  $SE = 0.023, 95\% CI [-0.027, 0.070]$ ), indicating that the magnitude of the indirect effect was not statistically different between the two pay range conditions. A further examination of the conditional indirect effects revealed that the indirect effect of gender on application decision through risk preference was significant in both the narrow range condition (indirect effect =  $-0.061, SE = 0.032, 95\% CI [-.133, -.007]$ ) and the wide range condition (indirect effect =  $-0.047, SE = 0.027, 95\% CI [-.109, -.005]$ ). Taken together, these results indicate that while the strength of the mediation did not significantly differ across pay range conditions, risk preference consistently mediated the relationship between gender and application decisions in both the narrow and wide range conditions.

**Discussion**

The results of Study 3 extend our findings to a real-world job application context in which candidates evaluated a single job posting in isolation, demonstrating that the disclosed pay range size influenced whether gender differences emerged in application decisions. Consistent with Hypothesis 1a, women were significantly

more likely than men to apply when presented with a narrow pay range, whereas no gender difference appeared in the wide pay range condition.

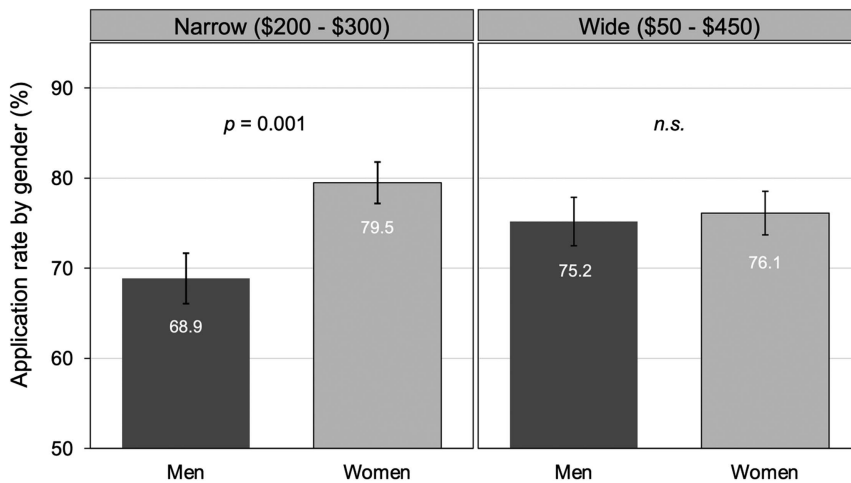
Our analysis of the underlying mechanism revealed a more nuanced pattern. Risk preference mediated the relationship between gender and application decisions in *both* conditions, but the observable gender differences depended on pay range width. In the narrow range condition, the reduced salary uncertainty appears to have made the position particularly attractive to risk-averse women, resulting in them applying at significantly higher rates than men (79.5% vs. 68.9%). In the wide range condition, despite the same underlying risk aversion, women’s application rates (75.2%) remained comparable to men’s (76.1%). One possible explanation for this pattern is that when evaluating a single opportunity in isolation (unlike the forced-choice context of Study 2), other appealing job attributes may have counterbalanced concerns about salary uncertainty. For instance, participants may have interpreted the wide pay range, in the context of a remote part-time position, as signaling flexibility in scheduling or variable time commitments—attributes that prior work shows women particularly value (Goldin, 2014; Mas & Pallais, 2017).

Overall, these results underscore risk aversion as a key factor driving women’s job application decisions while suggesting that its net impact may depend not only on specific job attributes but also on whether positions are evaluated in isolation or directly compared with alternative postings.

**Study 4: Information Intervention Clarifying Compensation Expectations**

Our findings thus far raise concerns about the potential gendered implications of pay range transparency policies, as women’s stronger preference for narrower salary ranges may place them at a disadvantage in subsequent salary negotiations. An

**Figure 3**  
Mean Application Rates by Gender for Each Pay Range Condition (Study 3)



Note. This figure shows the proportion of job seekers who applied within each pay range condition. Gender differences within each pay range condition are based on logistic regression analyses, including the same control variables used in the main analyses. Error bars represent  $\pm$  one standard error. n.s. = not significant.

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important corollary of our argument is that by reducing the perceived risk of wide pay ranges, the gender gap in applications should diminish: If uncertainty about final pay discourages women from considering wider ranges, providing additional information on compensation expectations should help alleviate this uncertainty.

From a signaling theory perspective (Spence, 1973; see Connelly et al., 2011, for a review), the ambiguity of a wide pay range creates what Belogolovsky and Bamberger (2014, p. 1714) termed a “noise problem,” undermining the goal of transparency by leaving applicants uncertain of their likely compensation. Accordingly, we designed an intervention that provides explicit information about typical starting salaries and the criteria used to determine pay. This information not only clarifies where offers are likely to fall within the range but also signals that the employer uses systematic compensation practices rather than arbitrary pay determination—a signal that may also help preserve the organizational trust that wide ranges can otherwise undermine (Kuhn, 2024). We expected that providing such clarity would increase women’s willingness to apply to positions with wider ranges and encourage more assertive negotiation behaviors. By testing this intervention, we sought not only to replicate and extend our prior findings but also to identify practical strategies that mitigate gendered patterns in pay range preferences and negotiation behaviors.

## Method

### Participants

We recruited 1,002 working professionals from Prolific, who completed the study in exchange for USD 0.65. Consistent with our preregistered exclusion criteria, we removed 33 participants who either failed an attention check or provided counteroffers below the manager’s initial salary offer (\$65,000), indicating insufficient attention to instructions. The final sample consisted of 969 participants ( $M_{\text{age}} = 42.84$  years,  $SD_{\text{age}} = 13.42$ ; 49.6% female).

### Procedure and Measures

Participants were instructed to imagine they worked as a Client Relations Manager (CRM) at a midsized company, earning an annual salary of \$65,000. We selected the CRM role for its broad applicability across industries and set the salary midpoint (\$65,000) based on median compensation for similar positions according to the U.S. Bureau of Labor Statistics (e.g., sales representatives; U.S. Bureau of Labor Statistics, 2023). In this scenario, participants read that a headhunter approached them regarding two comparable CRM roles within different branches of the same highly regarded company, each offering similar responsibilities, client bases, and commuting distances. The only substantive difference between the two roles was the width of their advertised salary ranges: One posting had a narrower range (\$55,000–\$75,000), while the other had a wider range (\$40,000–\$90,000). These ranges were drawn directly from the pay range determination pilot conducted in Study 2, which established realistic salary intervals around the \$65,000 midpoint.

Participants were randomly assigned to one of two conditions. In both conditions, they viewed the same two CRM job postings

described above, including the job details and their respective salary ranges. In the control condition, the postings did not provide any additional information about likely starting salaries or how pay is determined. In the intervention condition, both postings were accompanied by an additional statement clarifying typical salary outcomes and the criteria for determining final offers:

For new hires who meet our core criteria, the typical starting salary is around \$65,000. Your exact offer will reflect your relevant experience, skill level, and the responsibilities of the role, in line with our standardized compensation guidelines.

The intervention aimed to clarify the typical salary expectation and overall compensation process, thereby reducing the perceived risk and uncertainty regarding final salary outcomes.

**Manipulation Check.** To assess whether our intervention reduced perceived uncertainty around compensation, participants answered two questions for each of the two pay ranges (narrow, wide). First, they rated how risky they perceived applying for each position to be in terms of final salary outcome (1 = *not at all risky* to 5 = *extremely risky*). Second, they indicated the likelihood that the initial salary offer would fall below \$65,000 for each job (1 = *not at all likely* to 5 = *extremely likely*). In line with our theorizing, we expected that in the intervention condition—where typical salary outcomes and the pay determination process were clarified—participants would report lower perceived risk and a lower likelihood of receiving an offer under \$65,000, relative to those in the control condition.

**Application Decision.** Participants indicated which of the two positions they would apply to: the position with the narrower salary range (\$55,000–\$75,000) or the position with the wider salary range (\$40,000–\$90,000).

**Negotiation Behavior.** After making their application decision, participants learned that their application had been processed and received an initial salary offer of \$65,000 (the midpoint of both salary ranges). As in Study 2, participants reported their satisfaction with the offer (1 = *extremely dissatisfied*, 5 = *extremely satisfied*), likelihood of negotiating for a higher salary (1 = *not at all likely*, 5 = *extremely likely*), and the specific counteroffer amount they would propose in response to the initial offer.

## Results

### Manipulation Check

Overall, providing explicit information about typical salary outcomes and how pay is determined effectively reduced the perceived compensation risk across both pay ranges. For the wide range, participants in the intervention condition found it significantly less risky than did those in the control condition ( $M_{\text{intervention}} = 3.06$  vs.  $M_{\text{control}} = 3.28$ ),  $t(967) = 3.31$ ,  $p = .001$ ,  $d = 0.21$ , and viewed it as less likely to yield an offer below \$65,000 ( $M_{\text{intervention}} = 2.92$  vs.  $M_{\text{control}} = 3.25$ ),  $t(967) = 5.11$ ,  $p < .001$ ,  $d = 0.33$ . Similarly, for the narrow range, participants in the intervention condition reported marginally lower risk ( $M_{\text{intervention}} = 2.34$  vs.  $M_{\text{control}} = 2.44$ ),  $t(967) = 1.83$ ,  $p = .068$ ,  $d = 0.12$ , and a significantly lower likelihood of receiving an offer below \$65,000 ( $M_{\text{intervention}} = 2.44$  vs.  $M_{\text{control}} = 2.79$ ),  $t(967) = 5.93$ ,  $p < .001$ ,  $d = 0.38$ .

## Application Decision

Replicating our earlier findings, in the control condition—where no additional information about final compensation was provided—women were significantly more likely than men to apply to the narrow salary range (51.5% vs. 41.7%;  $b = 0.39$ ,  $SE = 0.18$ ,  $z = 2.15$ ,  $p = .031$ ; see Figure 4). In contrast, when typical salary and the criteria for determining final offers were explicitly stated in the intervention condition, this gender gap disappeared (39.7% vs. 40.6%;  $b = 0.04$ ,  $SE = 0.19$ ,  $z = 0.21$ ,  $p = .837$ ). Additional analyses showed that the intervention specifically increased women's likelihood of choosing the wide range ( $b = 0.48$ ,  $SE = 0.18$ ,  $z = 2.60$ ,  $p = .009$ ) but had no effect on men ( $b = 0.05$ ,  $SE = 0.18$ ,  $z = 0.25$ ,  $p = .799$ ). Although the Gender  $\times$  Intervention interaction was not statistically significant ( $b = 0.43$ ,  $SE = 0.26$ ,  $z = 1.66$ ,  $p = .097$ ), these results are consistent with our preregistered prediction that clarifying compensation expectations would increase women's preference for wider salary ranges.

## Negotiation Behavior

Consistent with Hypothesis 2 and replicating our previous findings, participants who applied to the narrow salary range displayed less assertive negotiation behaviors than did those who chose the wide range. Specifically, participants who chose the narrow range reported higher *offer satisfaction* ( $M_{\text{narrow}} = 3.30$  vs.  $M_{\text{wide}} = 2.63$ ;  $b = 0.67$ ,  $SE = 0.07$ ,  $t = 9.07$ ,  $p < .001$ ) and a lower *likelihood of negotiating* ( $M_{\text{narrow}} = 3.32$  vs.  $M_{\text{wide}} = 3.91$ ;  $b = -0.59$ ,  $SE = 0.07$ ,  $t = -8.35$ ,  $p < .001$ ) and made lower *counteroffers* ( $M_{\text{narrow}} = \$71,667$  vs.  $M_{\text{wide}} = \$75,294$ ;  $b = -3,627.27$ ,  $SE = 271.61$ ,  $t = -13.35$ ,  $p < .001$ ). Similar patterns emerged within each condition, with narrow range applicants showing less assertive negotiation behaviors in both the control and intervention groups (all  $p < .001$ ; see Table 8).

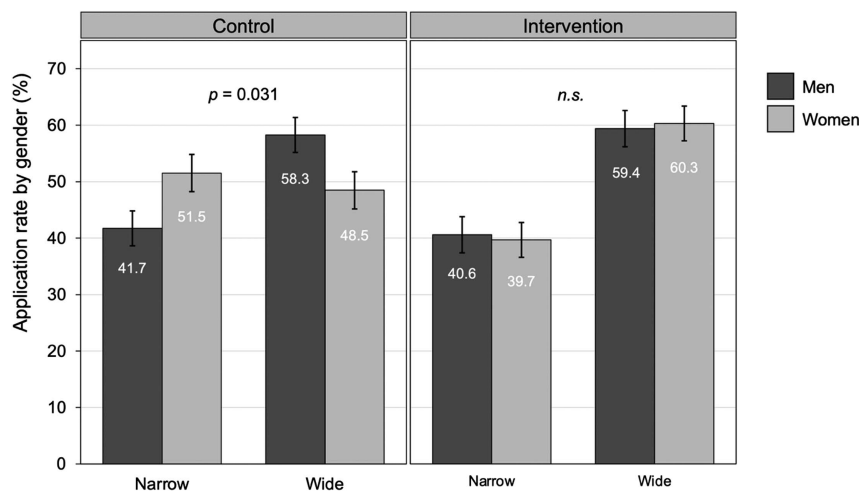
## Exploratory Analysis of Gender Differences Within Conditions

We next examined whether the gender difference in counteroffer amounts, observed under the control condition, would be attenuated in the intervention condition. In the control condition, women's counteroffers were significantly lower than men's ( $M_{\text{women}} = \$73,153$  vs.  $M_{\text{men}} = \$74,603$ ;  $b = -1,449.75$ ,  $SE = 421.09$ ,  $t = -3.44$ ,  $p = .001$ ). By contrast, in the intervention condition, no significant gender difference emerged ( $M_{\text{women}} = \$73,520$  vs.  $M_{\text{men}} = \$73,556$ ;  $b = -35.75$ ,  $SE = 402.96$ ,  $t = -0.09$ ,  $p = .929$ ). These results suggest that providing greater clarity about compensation expectations may help reduce gender disparities in negotiation behavior by increasing women's willingness to pursue wider salary ranges.

## Discussion

The findings from Study 4 demonstrate that providing applicants with explicit information about typical final salaries and how those salaries are determined reduces women's stronger preference for narrower pay ranges, effectively narrowing the gender gap in application decisions. Specifically, the intervention increased women's likelihood of choosing the wide range by 11.8 percentage points (from 48.5% to 60.3%), while men's preferences remained unchanged. To put this effect in practical terms, for every 1,000 women considering job opportunities, approximately 118 additional women would be willing to apply to positions with wider ranges when provided with clarifying information—positions where applicants in our study made counteroffers approximately \$3,600 higher than those choosing narrow ranges. This result supports the notion that uncertainty about final pay drives women's aversion to wide ranges and that clarifying likely compensation can bolster their willingness to consider wider salary ranges. Although individuals who chose narrower ranges continued to negotiate less

**Figure 4**  
Application Rates by Pay Range, Gender, and Condition (Study 4)



*Note.* This figure shows the application rates for each condition and pay range by gender. Gender differences within each condition are based on logistic regression analyses. Error bars represent  $\pm$  one standard error. *n.s.* = not significant.

**Table 8**

*Means (Standard Deviations) and Results of Planned Contrasts of Offer Satisfaction, Negotiation Likelihood, and Counteroffer by Condition and Applied Pay Range (Study 4)*

Measure	Control condition		Intervention condition	
	Narrow range	Wide range	Narrow range	Wide range
Offer satisfaction (1–5 scale)	3.21 (1.12) <sub>c</sub>	2.45 (1.11) <sub>a</sub>	3.41 (1.14) <sub>c</sub>	2.78 (1.18) <sub>b</sub>
Negotiation likelihood (1–5 scale)	3.36 (1.16) <sub>a</sub>	4.07 (0.98) <sub>c</sub>	3.27 (1.08) <sub>a</sub>	3.77 (1.11) <sub>b</sub>
Counteroffer (\$)	71,720 (2,921) <sub>a</sub>	75,814 (5,062) <sub>c</sub>	71,605 (3,266) <sub>a</sub>	74,832 (4,643) <sub>b</sub>

*Note.* Means that do not share a common subscript letter differ significantly from each other at  $p < .05$ , based on planned contrasts within a one-way analysis of variance. Standard deviations are in parentheses.

assertively—a pattern consistent with our prior finding—the overall gender gap in counteroffers was mitigated by the information intervention, echoing recent evidence that clear pay benchmarks can reduce gender gaps in wage requests (Roussille, 2024).

### General Discussion and Policy Implications

The present research examined how the width of pay ranges disclosed in job postings influences application decisions and subsequent negotiation behaviors. Across four studies—encompassing an archival analysis of approximately 10 million job postings (Study 1), experimental designs with both soon-to-be graduates (Study 2) and active job seekers (Study 3), and an intervention designed to mitigate salary uncertainty (Study 4)—we consistently found that women were more inclined than men to prefer narrower pay ranges, and this preference was influenced by women’s greater aversion to risk. In turn, opting for narrower ranges was linked to less assertive negotiation behaviors, revealing a *pay range sorting* effect, whereby gender differences in negotiation outcomes appear to be driven by differential self-selection into positions based on range width. This sorting process suggests that pay range size could contribute to gender disparities in initial job entry and compensation outcomes even before candidates reach the bargaining table. Notably, clarifying salary expectations increased women’s willingness to apply to wider ranges, thereby mitigating the gender gap in both application decisions and negotiation assertiveness.

It is important to clarify that our aim is not to position narrow or wide pay ranges as inherently beneficial or harmful but rather to show that employers’ discretion in setting these ranges can inadvertently influence applicant behavior by signaling uncertainty in final pay. This signal can create gender imbalances if risk-averse candidates, such as women, shy away from wider ranges they perceive as less predictable. By demonstrating how clarity about typical starting salary and the criteria for determining final offers can reduce such concerns, we offer a viable path for policymakers and organizations seeking to mitigate persistent gender gaps in pay and representation.

### Theoretical Contributions

We contribute to the literature on pay transparency and negotiations by shifting attention from incumbent employees to prospective job applicants, revealing how transparency policies can affect job entry and compensation outcomes. By focusing on how pay range disclosures influence application decisions and negotiation behaviors at the earliest stage of hiring—before any formal tie to an organization—our work offers a novel perspective on how

these policies affect labor market entry dynamics. While prior research has largely focused on incumbent employees’ fairness perceptions and performance outcomes (Belogolovsky & Bamberger, 2014) or organizational-level gender gaps postimplementation (Colella et al., 2007; Obloj & Zenger, 2022), our findings show that pay range disclosures distinctly influence the gendered pattern of job application behaviors. We highlight that this effect is driven in part by underlying differences in risk preferences, shedding light on how seemingly neutral policies may carry unintended consequences for labor-market entry.

Our findings also advance understanding of the gender pay gap (Blau & Kahn, 2017; Goldin, 2014) by providing a supply-side perspective on labor market dynamics. While much of the literature highlights demand-side factors such as organizational practices or biases (Arulampalam et al., 2007; Tijdens & van Klaveren, 2012), we demonstrate that job seekers’ application and negotiation behaviors also significantly shape labor market outcomes. By examining how transparency policies influence applicants’ preferences and actions, we contribute to the conversation on supply-side mechanisms fueling the gender pay gap (Barbulescu & Bidwell, 2013; Bear et al., 2023; Lordan & Pischke, 2022). Our results suggest that women’s tendency to favor narrower pay ranges, coupled with less assertive negotiation, may restrict their earnings potential and inadvertently reinforce inequalities at the job-entry stage, even under transparency initiatives intended to foster equity.

In addition, our work contributes to the negotiation literature by proposing pay range sorting as a distinct mechanism that may underlie gender disparities in negotiation outcomes. Prior research has identified various contributors to the gender negotiation gap—such as negotiation framing (Amanatullah & Morris, 2010; Small et al., 2007), gender stereotypes and societal norms (Kray et al., 2001; Tinsley et al., 2009), and differences in negotiation experience or self-efficacy (Mazei et al., 2015; Stevens et al., 1993). Building on work showing how job characteristics shape women’s negotiation initiation (Leibbrandt & List, 2015), we identify pay range width as a specific characteristic that creates differential selection patterns, with women disproportionately sorting into positions where negotiation potential is inherently constrained. Indeed, our exploratory analyses in Study 2 show that gender differences in negotiation assertiveness were minimal among individuals who applied to jobs with the same range size; rather, the gap in outcomes primarily reflected women’s higher likelihood of choosing narrower ranges in the first place. This sorting effect likely reflects more than risk preferences alone. From a signaling perspective (Connelly et al., 2011; Spence, 1973), wide ranges may communicate not only compensation uncertainty but also organizational characteristics

such as high performance-based pay variability (Cadsby et al., 2007; Lazear, 2000), greater managerial discretion in evaluation (Castilla & Benard, 2010; Reskin, 2000), competitive tournament-like advancement structures (Flory et al., 2015; Lazear & Rosen, 1981; Niederle & Vesterlund, 2007), or less formalized human resources systems (Elvira & Graham, 2002; Reskin & McBrier, 2000)—attributes that research suggests may differentially influence women’s organizational preferences (Barbulescu & Bidwell, 2013; Konrad et al., 2000). Importantly, our Study 4 findings demonstrate that this sorting effect can be mitigated through well-designed interventions, suggesting that gender disparities arising from pay range sorting are not inevitable but rather reflect addressable information asymmetries in how ranges are presented.

Taken together, these findings suggest that pay range disclosures can set more equitable expectations when they are presented with sufficient clarity, addressing the pay range sorting effect that can otherwise channel women disproportionately into positions with limited negotiation potential before bargaining even begins. To effectively foster pay equity, policies should consider not only the legislative requirements for disclosing pay ranges but also how differences in range width—and the clarity surrounding final compensation—affect both self-selection into jobs and subsequent negotiation behaviors.

### Policy Implications

Our findings highlight both the potential promise and pitfalls of pay transparency policies, particularly in light of gender differences in risk preferences. Although many jurisdictions now require salary ranges to be posted with each job advertisement, the wide ranges that some employers disclose may unintentionally deter risk-averse applicants, contributing to gender imbalances given women’s higher average risk aversion. A loosely enforced “good faith” requirement, for instance, may lead to extremely wide salary ranges, such as \$90,000 to \$900,000 (Green & Boyle, 2023), that nominally meet transparency laws but do little to reduce uncertainty about actual compensation. Our results show that such minimal compliance can undermine policy aims by discouraging the very populations these policies intend to support.

Crucially, Study 4 indicates that when employers supplement wide ranges with clear information about a typical or expected salary and how final offers are determined, women’s stronger aversion to wide ranges diminishes. By providing clear guidance on typical salaries and linking final pay to objective criteria, this intervention directly addresses the uncertainty that often inflates perceptions of risk. Rather than leaving applicants to guess whether their prospective salary might land on the low or high end of a wide range, well-designed postings or follow-up recruitment materials can specify, for example, “Typical starting pay is approximately \$85,000; final offers depend on prior experience, skill level, and role responsibilities.” Such guidelines mitigate the perceived uncertainty in final compensation that risk-averse candidates might find concerning while still preserving the advantage of wide ranges for those who value or qualify for a broader earning potential. Recent analyses of posted salary data further suggest that truly transparent positions, which provide explicit contexts for pay levels, may foster more balanced applicant pools over time (cf. PayScale, 2020). From a signaling standpoint, interventions like the one tested in Study 4 may be effective not only because they reduce uncertainty but also

because they convey cues about structured human resources practices and organizational fairness. Such signals may be especially meaningful for women applicants, as research demonstrates that formalized compensation systems reduce gender wage gaps by limiting the managerial discretion that can enable bias (Abraham, 2017; Elvira & Graham, 2002). Designing postings that transparently communicate systematic compensation practices may therefore attract a more gender-balanced applicant pool by both clarifying expected pay and signaling a commitment to fair and equitable processes.

To strengthen the impact of legislation in this area, policymakers should consider defining more concrete parameters—such as capping the permissible spread or requiring that advertised ranges reflect the pay of most incumbents in comparable roles. Without such guidelines, some employers may undermine the intent of transparency laws by posting unnecessarily wide ranges (Green & Boyle, 2023; Stahle, 2023b). Mandating that wide ranges be accompanied by a clear explanation of typical starting salaries or the distribution of incumbent compensation could go a long way toward ensuring that “good faith” disclosures convey useful, rather than perfunctory, information. In parallel, employers can voluntarily adopt such practices to demonstrate their commitment to equitable pay processes. For instance, indicating how many recent hires were placed in different segments of a posted range would help risk-averse applicants form a more realistic sense of their likely standing.

Our evidence also underscores the importance of clarity surrounding salary negotiations. Across Studies 2 and 4, applicants who opted for narrower salary ranges consistently approached negotiations with lower expectations and less assertive behaviors, including smaller counteroffers and a reduced likelihood of bargaining at all. Because this dynamic disproportionately affects women—who, on average, are more risk-averse and thus more likely to select narrower ranges—it can perpetuate or widen gender pay disparities once formal negotiations commence (Bowles et al., 2005; Small et al., 2007). However, as our intervention results demonstrate (Study 4), women’s willingness to apply to wider ranges and negotiate more assertively increased when the employer clearly indicated typical starting pay and the criteria that justify higher compensation levels. Providing candidates, early in the hiring process, with concrete information on typical compensation outcomes, as well as the credentials or accomplishments linked to higher offers, can reassure more risk-averse applicants that negotiation is both legitimate and unlikely to backfire (Babcock & Laschever, 2003). This aligns with research showing that explicit norms and transparency around negotiability encourage women to negotiate for higher pay (Leibbrandt & List, 2015; Recalde & Vesterlund, 2022). Employers might further embed clear signals, such as naming specific performance benchmarks or advanced skills that unlock higher salary tiers, to foster more assertive negotiations by applicants who would otherwise be deterred by salary uncertainty.

Finally, policymakers, educators, and community organizations can support prospective applicants through training on negotiation and pay range interpretation, ensuring that wide ranges do not become de facto deterrents for certain demographic groups. While transparent salary ranges have the potential to transform labor market fairness, our evidence indicates that transparency laws must be more than a box-checking exercise. When implemented thoughtfully, with explicit reference points, consistent pay

guidelines, and upfront information on negotiable pay criteria, pay range disclosures can move closer to their intended social impact of closing wage gaps rather than inadvertently reinforcing them.

### Limitations and Directions for Future Research

Although our four studies collectively contribute to understanding how pay range transparency shapes application behaviors and negotiation assertiveness, each design carries inherent limitations. Study 1 offers primarily descriptive insights rather than a direct hypothesis test. Studies 2 and 4 rely on hypothetical scenarios and self-report measures that can introduce common-method bias (Podsakoff et al., 2003). These hypothetical scenarios simplified the complexities of a real job search by presenting a forced choice between jobs and holding constant the context of an average applicant receiving a midpoint offer. This approach, while offering control, may not fully capture how applicants might pursue multiple opportunities simultaneously or how varying levels of candidate qualifications and bargaining leverage (e.g., those with competing offers) might moderate responses to pay range width (Cable & Judge, 1994; Pinkley et al., 1994).

While we took steps to increase realism (Aguinis & Bradley, 2014; Hughes & Huby, 2002) and separate key measures (Podsakoff et al., 2012), no single-survey study is free of such concerns. We sought to offset these constraints by adopting a complementary, multimethod approach—using both within- and between-subject designs, along with archival data, surveys, a field experiment, and an intervention—so that no single design's limitations would unduly constrain our conclusions. Moreover, research has shown that people's responses to hypothetical risky decisions often predict their choices when consequences are real (Wiseman & Levin, 1996), lending confidence that our findings, although partly grounded in hypothetical scenarios, reflect meaningful outcomes in actual job search and negotiation contexts. Future research leveraging additional real-time application data or following applicants longitudinally could further clarify whether risk-driven preferences for narrower pay ranges translate into longer term earnings disadvantages and how these effects vary across applicants with different qualifications and bargaining positions.

While the current research focused on risk aversion as one explanation for women's stronger preference for narrower pay ranges, other mechanisms—such as perceptions of fairness, beliefs about employer reliability, or competition motives—may also shape how individuals respond to disclosed ranges. Wide ranges may function as signals of various organizational attributes that extend beyond compensation uncertainty. For instance, women's heightened aversion to wide ranges could stem from fears of inequitable treatment or a sense that larger spreads allow greater scope for bias in final offers (Blau & Kahn, 2017; Lips, 2013), potentially undermining their trust in an employer's compensation system (Kuhn, 2024). Research shows that discretionary evaluation systems enable greater bias against women (Bielby, 2000; Castilla & Benard, 2010; Reskin & McBrier, 2000), while formalized, transparent processes reduce gender disparities in outcomes (Abraham, 2017; Elvira & Graham, 2002; Sutton et al., 1994). Wide pay ranges may signal precisely this type of discretionary system, deterring women who anticipate greater potential for inequitable treatment. The effectiveness of our Study 4 intervention in reducing gender gaps may

therefore stem partly from signaling formalized rather than discretionary pay practices through clear compensation guidelines and evaluation criteria, attributes that women particularly value in organizational settings (Castilla, 2015; Konrad et al., 2000). Men, by contrast, might embrace wide ranges as an opportunity to negotiate, with greater confidence in their ability to secure higher earnings within less defined salary parameters (Bear et al., 2023; Niederle & Vesterlund, 2007). In Study 2, men were descriptively more likely to apply to the no-range posting (25.8% vs. 14.8%,  $p = .101$ ), suggesting that some might even view the absence of explicit upper and lower bounds as offering maximum latitude for negotiation. Meanwhile, women may anticipate social backlash for assertive bargaining (Amanatullah & Morris, 2010; Bowles et al., 2007) and therefore favor narrower ranges that reduce the need to negotiate.

Despite these limitations, our findings offer a stepping stone for future research to further examine how distinct forms of pay transparency, combined with employer signals and individual motivations, shape labor market decisions. We encourage scholars to explore how diverse occupational contexts, cultural settings, or regulatory environments moderate these processes and to trace whether early self-selection into narrower versus wider ranges ultimately influences long-term career outcomes. Such efforts stand to inform more targeted interventions and transparency policies that mitigate gender disparities and foster equitable outcomes in the evolving labor market.

### Conclusion

Our findings suggest that pay range transparency, while intended to promote pay equity, can inadvertently deter risk-averse applicants and thus perpetuate gender gaps in both application decisions and negotiation outcomes. To avoid discouraging the very applicants these policies aim to support, transparency laws and organizational practices should require not only posting ranges but also providing clear information about typical starting pay and the criteria used to determine final offers, thereby reducing uncertainty and empowering job seekers to negotiate. When grounded in thoughtful implementation and transparent norms, pay range disclosures have the potential to more fully advance efforts toward equitable pay. We hope this work motivates additional research and continued refinement of pay transparency policies to ensure that they contribute to a more inclusive and fair labor market.

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