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Article

The feminine gender role penalty: gender role expression, compensation, and sector differences in wage outcomes

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Abstract

Equal pay for males and females has been a focus of legislation for decades, yet closing the wage gap remains a persistent challenge. While traditional explanatory factors such as biological sex, education, tenure, and age account for much of the variation in wages, the remaining unexplained portion suggests that additional factors may contribute to pay inequities. One largely unexplored area in the equal pay literature is the relationship between gender role and wages. Drawing on gender role and role congruity theories, this study hypothesizes that individuals with a more feminine, communal gender role will earn lower wages because feminine behavioral expectations are incongruent with the more agentic norms often associated with workplace success. Using a Blinder-Oaxaca decomposition analysis and a matched sample of full-time employees from large metropolitan areas in the United States (n=1,114), the study found that feminine gender role was a significant negative predictor of wages. Respondents exhibiting the feminine gender role earned 2.86% lower wages than their counterparts. Since women in the sample were more likely to report feminine gender role characteristics, this effect disproportionately affects female employees. Given the challenge of closing the pay gap and the slower rate of reduction in pay differentials, the inclusion of internalized and social variables may be an important next area of exploration. In an additional exploratory ordinary least squares multi-group analysis, feminine gender role was not a significant predictor of wages among public sector employees, but remained significantly negatively associated with wages among private sector employees. These findings suggest that the more standardized compensation structures common in the public sector may help reduce pay differentials associated with gendered behavioral expectations. Future research should further examine public-sector compensation practices and investigate the potential influence of gendered behavioral scripts in hiring, promotion, and compensation processes.

Keywords: gender roles, wage gap, pay equity, role congruity theory, public sector

Introduction

Gender pay equity remains difficult to resolve, even after legislation has been enacted across many states and nations to help close the wage gap between men and women (Rosseau & Webster, 2026). As of 2025, women in the United States earn 15 cents less per dollar than men, reflecting a substantial improvement from the 35-cent gap reported in 1982 (Pew Research Center, 2025). Despite this improvement, the gap in wages persists and is closing at a slower rate compared to prior years. At the current rate, pay parity is not expected to be reached until 2059, over 30 years or an entire working generation from today (Gailey, 2025).

The systemic nature of the wage gap is problematic for several reasons. First, it negatively impacts women's immediate economic well-being. With fewer resources, they are unable to participate as fully in the economy. Second, this disparity hinders their ability to support dependents, a challenge particularly acute in single-parent households. Third, the gap carries long-term implications for financial security by reducing the capacity to save and lowering defined benefit calculations, such as Social Security (Leisenring, 2020). For example, any benefit plans based on career earnings will reflect and perpetuate these initial wage disparities into retirement.

Many conditions have been considered to explain why the wage gap endures. For example, differences in level of job position, tenure in the field, educational attainment, and hours worked have all been used to explain why the gap remains difficult to fully close (Blau & Khan, 2017; Blau et al., 1998; Choi, 2018; Stanley & Jarrell, 1998). Even considering these factors, there remain unexplained portions of the pay gap which may be attributed to factors that are not currently expressed in existing pay equity analyses. Without fully understanding these additional contributors to the pay differential, it is difficult to fully take action at the practical level to achieve the outcome of fair pay.

Gender roles are one such factor that may be impacting pay and have not yet been fully explored in the pay equity literature. Gender roles refer to the ways in which individuals enact their gender through behaviors that are socially constructed as more masculine or feminine (Money et al., 1955). For example, assertiveness and negotiation are often socially reinforced as masculine traits, while empathy and communal support are viewed as feminine. As individuals are socialized within a cultural context that reinforces these expectations, they develop behavioral scripts through which these socially expected behaviors are enacted. (West & Zimmerman, 1987).

Gender roles create a twofold impact; they both inform the choices of the individual about how to behave as well as the way in which others perceive and react to that behavior. Gender roles and the related social rewards and penalties are also present in the workplace (Eagly, 1987; Eagly & Wood, 2012). As an illustration of this point, women have historically been less likely to negotiate their salary at hire (Recalde & Vesterlund, 2023). Women are also more likely to be perceived as difficult if they do negotiate because the behavior is not aligned with social expectations (Bowles et al., 2007). In either case, whether women choose to negotiate less frequently or are perceived negatively if they do, they experience a negative pay outcome more frequently.

Consequently, some of the remaining unexplained pay gap may be attributed to the alignment of socially rewarded or penalized behaviors (role congruency) with gendered behavior expectations

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(gender roles). Role congruity theory suggests that workplace reward systems disproportionately value agentic behaviors traditionally associated with masculine gender roles (Eagly & Karau, 2002). Individuals exhibiting more communal, feminine gender role characteristics may therefore experience lower compensation regardless of biological sex because those behaviors are less aligned with workplace expectations linked to leadership, influence, and advancement. The purpose of this study is to examine whether the feminine gender role is associated with lower wages and, if so, the magnitude of the associated wage penalty.

Literature Review

Both biological sex and gender are considered as part of this research. While these constructs are frequently conflated, this study considers them analytically distinct while acknowledging the relationship between them that exists within the labor market. Unger & Crawford (1992) refer to biological sex as "differences in genetic composition and reproductive anatomy and function" (p. 27), typically encompassing male, female, and intersex categories. In contrast, gender is viewed as a multidimensional construct, encompassing both personal identity and external social interaction (Bohan, 1993; West & Zimmerman, 1987).

Related to the concepts of gender and sex is the additional concept of gender roles. First described by John Money et al. (1955) as "all those things that a person says or does to disclose himself or herself as having the status of boy or man, girl or woman," gender roles describe the way in which gender is enacted. Gender role expectations include social expectations of men's and women's actions or behaviors, word choice, and non-verbal communication. Whereas sex is biological and gender is a self-conception shaped through interactions with society, gender roles express broader cultural expectations attributed to individuals based on their sex and gender (Bohan, 1993; Money et al., 1955; Unger & Crawford, 1992).

The social expectations of gender can be either proscriptive, behaviors to avoid, or prescriptive, behaviors that are encouraged (Hollander et al., 2011). For example, when instructing a young boy to "man up" or "be a man" to convey the social expectation of courage in a particular situation, this is a prescriptive statement of how he is being asked to enact his masculinity by expressing courage. On the other hand, a statement like "don't cry like a little girl" may also be a way of signaling courageous behavior expectations, but it is done in a proscriptive manner that suggests the feminine vulnerability is not acceptable. This proscriptive approach, in particular, not only signals cultural expectations to the boy, but may also signal expectations and potential gender devaluation to girls who are within earshot.

When these social expectations as well as the appropriate response protocols become internalized as a framework for enacting behavior, they are known as scripts. Scripts are used for the development of many social interactions in addition to gender roles, such as language development and structured problem solving (Levy & Fivush, 1993). West and Zimmerman (1987) characterize the use of scripts related to gender as "doing gender," a process by which these scripts are actively and frequently enacted to meet the expectations of the community. Functionally, scripts can be used as cognitive shortcuts so that when people are faced with similar situations, they are able to move

through them without having to learn about each step every time. On the other hand, scripts can perpetuate systemic inequality and result in disparate outcomes when they become embedded in systems and practices that negatively affect groups and individuals.

Gender roles and the related scripts are socially constructed and context dependent (Donnelly & Twenge, 2017). As a result, gender roles are not static but change over time, across cultures and classes, and within sub-groups of a larger population (Barth & Trübner, 2018; Haines et al., 2016; Naz et al., 2022). Despite the propensity to change, gender roles in the United States have remained relatively stable. Haines et al. (2016) documented that over the course of thirty years (1983–2014) there was relatively little change in the stereotypical conceptions of men and women, including "domains such as physical characteristics, occupations, and gender roles" (p. 360). Over a longer period, from 1946 to 2018, Eagly et al. (2020) documented that there were some changes in gender stereotypes, particularly the perception that men and women are more likely to be perceived as equally competent and intelligent. However, some stereotypes also became more ingrained over this period, including that women are more communal and men more agentic (Eagly et al., 2020). Although there has been some movement in gender stereotypes, clear and distinct role expectations for men and women persist.

Gender roles and the related scripts are maintained through social interactions. Eagly & Karau (2002) hypothesized that it is more challenging for women to acquire and sustain leadership positions due to the perceived incongruity of their gender role and the leadership role. The female gender role is often associated with communal qualities (e.g., sympathetic, nurturing, helpful) whereas the male gender role is associated with agentic characteristics (e.g., assertive, confident, ambitious) (Eagly, 1987). Leadership roles are similarly perceived as agentic. When males occupy leadership roles, their two overlapping roles, their gender role and leadership role, are congruent (both agentic). Whereas for a woman, these two roles would be perceived as incongruent (communal and agentic). Eagly & Karau (2002) point to this role incongruity as the reason for the lower representation of women in leadership roles and the frequently less favorable perception of their performance.

Further, the workplace was historically a male-dominated sphere in the United States, with women entering the workforce in greater numbers only since the mid-20th century (BLS, 2014). As a result, the workplace was established as a more masculine, agentic environment. Therefore, those displaying these agentic characteristics are expected to be in alignment with the role expected of them in the workplace environment. On the other hand, the more feminine stereotyped, communal behaviors are not in alignment with the historical development of the work environment. While agentic behaviors are aligned with the work environment, the feminine gender role may be perceived negatively in the work environment due to the incongruence. The incongruence of the roles will be stronger for women due to the gender role expectations layered on the work role expectations.

While role congruity theory has traditionally focused on leadership attainment and performance evaluations (Eagly & Karau, 2002; Smith et al., 2019), the same mechanism may also influence compensation outcomes. Individuals whose behaviors are perceived as congruent with workplace expectations may receive greater rewards through promotion, performance evaluations, salary

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negotiations, and perception of leadership ability. Conversely, individuals exhibiting behaviors perceived as less congruent with workplace expectations may experience fewer opportunities for advancement, more negative performance evaluations, less successful salary negotiations, and lower assessments of leadership ability, resulting in lower compensation over time.

This study suggests that the enacted scripts associated with the feminine gender role are an overlooked variable in equal pay analyses. If the work environment has socially maintained roles and expectations for those roles that are congruent with or incongruent with gender roles, then it is expected that the penalty or reward would come in the form of pay. For example, when a man exhibits a masculine gender role, it is expected that their pay would be higher than a man exhibiting a feminine gender role due to the feminine gender role penalty. Similarly, women may also experience a pay penalty for enacting a feminine gender role at work due to the incongruence of the feminine gender role with the workplace role stereotypes. This may be compounded for women since, on average, women are paid less initially, and this feminine gender role penalty may result in heightened role incongruence.

In the public sector, there has been less wage variability compared to the private sector (Katz & Krueger, 1993). Choi (2018) has suggested that the reduced pay variability is due to more structured pay systems, frequently based on seniority. Due to these findings related to the public sector, it is also hypothesized that the association of gender roles and wages will be reduced in the public sector. Specifically, the pay penalty for the feminine gender role in both men and women will be reduced due to the more standardized compensation structures in the public sector, including formal classification systems, pay scales, and pay changes based on seniority systems.

Understanding the association of feminine gender roles with compensation provides essential clarity into the mechanisms that sustain wage disparities. This study extends pay equity research by examining feminine gender role as a distinct predictor of compensation, separate from biological sex. Furthermore, this insight allows for more direct interventions to help further reduce the gap. The purpose of developing a clearer understanding of how gender role influences pay equity is to inform more effective policy responses that address this particular aspect of wage disparity. This research proposes the following hypotheses:

Hypothesis 1: Males earn more than females for full-time equivalent work.

Hypothesis 2: Females are more likely than males to exhibit the feminine gender role.

Hypothesis 3: Individuals who exhibit the feminine gender role will experience a pay penalty, regardless of biological sex.

Hypothesis 4: The association between feminine gender role and wages will be weaker in the public sector than in the private sector.

Methods

Data were drawn between April and May 2019 from a cross-sectional online survey of 1,420 full-time employees. The timing of the data collection serves as an important baseline prior to the economic impacts of the COVID-19 pandemic. Since foundational gender role stereotypes and

behavioral scripts shift slowly over long periods (Eagly et al., 2020; Haines et al., 2016), this study offers a baseline prior to the major workplace changes that occurred alongside the pandemic. Future research can build upon this baseline to determine how these relationships may have evolved alongside post-pandemic shifting work modalities, such as remote or hybrid environments.

The data were collected from respondents in four geographically dispersed major cities across the United States, including Los Angeles, New York, Houston, and Chicago. Large cities were chosen to ensure a broad sample of industries and occupations was represented. Per Institutional Review Board guidelines, respondents who were surveyed agreed to a statement of informed consent as part of the survey process and were informed their response would be anonymous. Part of the informed consent stated that the respondent could leave the survey at any time. However, only fully complete surveys were considered in the analysis.

Respondents were recruited through panels from an independent contractor, Qualtrics, using multiple recruitment strategies, including self-expressed interest, sign-ups for commercial promotions, and direct recruitment. Multiple panels were utilized to achieve broader representation. To ensure the survey reached full-time employees, respondents who stated they worked between 30 and 60 hours per week were included, and self-employed individuals were excluded. The sample was also stratified by biological sex (male and female) as well as sector (public and private). The final sample included 713 female respondents (50.2%) and 707 (49.8%) male respondents.

The survey included both demographic questions and questions about the respondents' gender role using the revised-version of the Bem Sex Role Inventory (Bem, 1981). The demographic questions included questions about the respondents' personal characteristics (year of birth, biological sex, level of education, and race and ethnicity) as well as their work characteristics (city of employment, number of hours worked per week, sector of employment, industry of employment, hourly or annual wages, union representation status, time in current position, time with current employer, and time in current industry). Year of birth was transformed into an age variable based on the year of the survey. The race categories were split into several dummy coded variables for American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Pacific Islander, White, and Other. There was an additional ethnicity variable that was also dummy coded for Spanish, Hispanic, or Latino. Level of education was transformed into years based on the expected years of schooling. Time in current position, time with current employer, and time in current industry were all measured in years.

The Bem Sex Role Inventory (BSRI) was first proposed by Sandra Bem (Bem, 1974) to "assess the culturally-defined, desirable qualities for men and women (viz., gender stereotypes) that are then reflected in one's self-description by personally endorsing whether they have these qualities" (Dean & Tate, 2017, p. 645). While originally introduced as a 60-item assessment, in 1981 a revision was introduced to improve the correlation of the scales, resulting in a shorter 30-item version (Bem, 1981). This revised version of the tool was utilized as part of the survey instrument. Importantly, BSRI measures masculinity and femininity on separate scales, rather than envisioning masculinity and femininity as a single bipolar scale. The 30-item version includes a list of qualities which respondents rate their frequency of exhibiting on a 7-point Likert scale ranging from never or almost never (1) to always or almost always (7). While the language surrounding sex and gender

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was frequently conflated at the time the BSRI was developed, the constructs of masculinity and femininity measured by the scale more appropriately align with the modern conception of gender role rather than sex role. The list of qualities is shown in Table 1.

Cronbach's alpha was .840 for the masculine scale and .907 for the feminine scale, indicating good reliability. The neutral scale had the lowest Cronbach's alpha at .659, which is theoretically aligned with expectations since neutral is not intended to measure a single concept. The BSRI value for each respondent was calculated using the median split method based on the BSRI instruction manual (Bem, 1981), which identifies the median value for each of the masculine and feminine scales and then categorizes the respondent as 'high' or 'low' on the scale relative to that benchmark. This approach was aligned with the study's focus on categorically recognizable roles being assessed as congruent or incongruent, consistent with role congruity theory. While the scale version of these variables includes more variability, the focus of this research was on whether or not the feminine gender role was reported, not the degree of femininity. Therefore, the median split method was chosen, rather than a scaled representation of feminine or masculine, to align with the theoretical argument. The scales themselves are not binary. Respondents can be high in only one scale, both scales, or neither scale. After removing 121 respondents in the data cleaning process due to missing base pay data, straight-line responses, or extreme wage outliers (e.g., values falling below the standard minimum wage), the BSRI categorization is shown in Table 2.

Respondents were asked to report their wages as either hourly or annually depending on how they receive their pay. All wages were standardized to be representative of annual wages for a standard full-time equivalent (FTE) employee of 40 hours per week (2080 hours per year). Hourly wages were converted to annual wages by multiplying their hourly wage by 2080 hours, and annual wages were similarly adjusted depending on the number of hours worked per week. There was additional wage variation across the four cities due to differences in the cost of living. As a result, a cost of living adjustment was applied using Chicago as the base value (C2ER, 2019). Finally, due to

Table 1. Characteristics associated with each of the BSRI categories

Masculine (10 items)	Feminine (10 items)	Neutral (10 items)
Aggressive	Affectionate	Adaptable
Assertive	Compassionate	Conceited
Defends own beliefs	Eager to soothe hurt feelings	Conscientious
Dominant	Gentle	Conventional
Has leadership abilities	Loves children	Jealous
Independent	Sensitive to the needs of others	Reliable
Self-sufficient	Sympathetic	Secretive
Strong personality	Tender	Sincere
Willing to take a stand	Understanding	Tactful
Willing to take a risk	Warm	Unpredictable

BSRI, Bem sex role inventory.

Table 2. Number and proportion of feminine and masculine reported characteristics for females and males, pre-matched sample

	Feminine BSRI scale		Masculine BSRI scale	
	Below Median on feminine scale	Above median on feminine scale	Below median on masculine scale	Above median on masculine scale
Female (n=656)	281 (42.8% of females)	375 (57.2%)	350 (53.4%)	306 (46.6%)
Male (n=643)	381 (59.3% of males)	262 (40.7%)	341 (53.0%)	302 (47.0%)

BSRI, Bem sex role inventory.

the skew in the sample's base pay, the annualized wages underwent a logarithmic transformation.

In order to ensure the male and female groups were similar in work background and demographic characteristics, respondents were matched using a propensity score matching procedure. This was particularly important due to the convenience sampling approach used in the data collection. The propensity score procedure was performed using the MatchIt package in R, with biological sex as the grouping variable and age, race, ethnicity, years of education, time with employer, time in position, and time in industry used as covariates. The nearest neighbor approach was used without replacement, and a caliper was set at 0.1 of the standard deviation of the propensity score to ensure the matches were relatively similar to one another. Following this procedure, there were 557 matches (male and female), resulting in a total final sample of 1,114 respondents. The final demographics of the matched sample are presented in Table 3. The standardized post-match difference was below the 0.10 threshold established by Austin (2011) for all human capital and demographic characteristics.

Once the final sample was established, a Welch's t-test was conducted to test Hypothesis 1, which establishes that males earn more than females in the sample with no control variables included. This is an embedded assumption that is central to the research and is tested to ensure the sample aligns with existing, documented social structures. To test the second hypothesis, that females are more likely than males to exhibit the feminine gender role, a chi-square analysis was conducted with sex as one variable and feminine gender role expression as the second. Again, this is an assumption that underlies the primary hypotheses and is included before moving further into the analyses.

The third hypothesis posits that individuals who exhibit the feminine gender role will experience a pay penalty, regardless of biological sex. Consistent with other analyses in the pay equity literature, a Blinder-Oaxaca decomposition was utilized to examine the gender wage gap while incorporating the feminine gender role as a key explanatory variable. Using this approach, separate regression models are estimated for males and females, and the mean difference in log wages between the groups is decomposed into explained and unexplained components. The explained portion captures the wage differential attributable to differences in observable characteristics, such as demographics and the feminine gender role variable. The unexplained portion represents the differential stemming

Table 3. Respondent demographics following the matching procedure

Variable	Male (n=557)	Female (n=557)	Combined sample (n=1,114)
Annualized base wages (mean), not a matching covariate.	$53,232.14	$48,407.54	$50,819.84
Age (mean years)	37.7	37.8	37.7
White	329 (59.1%)	328 (58.9%)	657 (59.0%)
Black or African American	115 (20.6%)	118 (21.2%)	233 (20.9%)
Asian	50 (9.0%)	37 (6.6%)	87 (7.8%)
American Indian or Alaska native	5 (0.9%)	9 (1.6%)	14 (1.3%)
Native Hawaiian or Pacific islander	4 (0.7%)	5 (0.9%)	9 (0.8%)
Other race	54 (9.7%)	60 (10.8%)	114 (10.2%)
Spanish, Hispanic, or Latino	140 (25.1%)	130 (23.3%)	270 (24.2%)
Education (mean years required)	15.04	15.17	15.10
Time in current position (years)	6.73	6.68	6.70
Time with current employer (years)	6.96	6.79	6.88
Time in current industry (years)	10.02	9.98	10.00
Public sector	245 (44.0%)	254 (45.6%)	499 (44.8%)
Private sector	312 (56.0%)	303 (54.4%)	615 (55.2%)

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from variance in the returns (coefficients) to these characteristics, which is typically interpreted in the literature as a proxy for discrimination and unobserved variables.

Finally, to test the fourth hypothesis, which examines the association of the feminine gender role in the public sector and private sector, a multi-group analysis was performed. The sample was split into two groups, private sector and public sector respondents. For each group, the relationships between biological sex and log of wages were examined using an ordinary least squares (OLS) regression that included feminine gender role as a predictor in addition to the human capital and demographic controls.

Results

Hypothesis 1: males earn more than females for full-time equivalent work

A Welch's t-test was performed to compare the log of wages for males and females in the matched sample. There was a significant difference between males (M=4.66; SD=0.24) and females (M=4.63; SD=0.22), with males having a higher average logged wage, $t(1,104.80)=-2.41$, $p<0.05$.

Hypothesis 2: females are more likely than males to exhibit the feminine gender role

A chi-square analysis was performed to determine if females in the matched sample were more likely to exhibit the feminine gender role. The result was significant, with females (55.8%) more likely than males (39.9%) to identify with the feminine gender role, $\chi 2$ (1, n=1,114)=28.50, $p<0.001$. However, the effect size was weak (Cramér's V=0.16).

Hypothesis 3: individuals who exhibit the feminine gender role will experience a pay penalty, regardless of biological sex

A Blinder-Oaxaca decomposition analysis was performed using the 'Oaxaca' package in R as outlined by Hlavac (2018). The dependent variable was the log of wages, the independent variable was biological sex, and the feminine gender role was included as a predictor. Age, race, education, years of experience, and total time in position and company were included as controls. The feminine gender role was added in a stepwise fashion so that the models, a baseline full specification, could be reviewed both with and without the impact of this variable. A bootstrapping method was used to estimate the standard errors, and the pooled regression coefficients are reported in Table 4 due to the sensitivity of the choice of reference category (male). In the first model, without feminine gender role included, education ($p<0.001$), Hispanic identity ($p<0.01$), Black or African American identity ($p<0.05$), and time in industry ($p<0.001$) are all significant predictors of the log of wages.

Once the feminine gender role was included as an additional predictor (Table 4), the significant control variables remained consistent for education ($p<0.001$), Hispanic identity ($p<0.01$), Black or African American identity ($p<0.05$), and time in industry ($p<0.001$). Considered together, the baseline specification and the full specification, there is little change among the coefficients of the control variables. This is also reflected in the relatively small endowment effect, although this effect increases in the fully specified model. This stability was expected due to the matching procedure used to balance the groups prior to running the regression. However, retaining the control variables

Table 4. Pooled results for Blinder-Oaxaca decomposition coefficients with and without the inclusion of feminine gender role, standard errors listed in parentheses (matched sample)

Variable	Model 1: baseline specification	Model 2: full specification
Feminine gender role	N/A	–0.029 (0.012)*
Personal characteristics		
Age	0.001 (0.001)	0.001 (0.001)
White (reference)	N/A	N/A
Asian	–0.014 (0.022)	–0.016 (0.022)
Black or African American	–0.039 (0.015)*	–0.038 (0.015)*
Hispanic	–0.064 (0.023)**	–0.065 (0.023)**
Other race	0.007 (0.028)	0.009 (0.028)
Education	0.034 (0.002)***	0.034 (0.002)***
Job characteristics		
Time in position	–0.001 (0.001)	–0.001 (0.001)
Time with employer	0.002 (0.002)	0.002 (0.002)
Time in industry	0.007 (0.001)***	0.007 (0.001)***
Constant	4.053 (0.044)***	4.058 (0.044)***
Gross log wage differential	0.03	0.03
Endowment effect (explained)	–0.004 (0.01)	0.000 (0.01)
Coefficient effect (unexplained)	0.037 (0.01)**	0.035 (0.01)**
Interaction effect	–0.001 (0.003)	–0.002 (0.01)

* $p<0.05$, ** $p<0.01$, *** $p<0.001$.

in the regression itself was also valuable to assess the individual associations with pay.

Additionally, the included feminine gender role was significant ($p<0.05$) in the full specification model. The coefficient for the feminine gender role was –0.029. This indicates a 2.86% ($(e^{-0.029}-1)\times100$) wage penalty for individuals who report the feminine gender role. The unexplained portion of the variance, the coefficient effect, decreased between the baseline (coefficient=0.037) and full specification (0.035) models, indicating a slightly greater proportion of the variation in wages being explained by the addition of the feminine gender role variable.

Hypothesis 4: the association between feminine gender role and wages will be weaker in the public sector than in the private sector

To test the fourth hypothesis, intended to explore the association of the feminine gender role with wages in both the public and private sectors, two OLS models were estimated:

$$\text{Model 1: } \ln(Wages_{private})=B_0+B_1(Sex)+B_2(FeminineRole)+covariates+\varepsilon$$
$$\text{Model 2: } \ln(Wages_{public})=B_0+B_1(Sex)+B_2(FeminineRole)+covariates+\varepsilon$$

Model 1, including employees in the private sector, was significant and explained 27% of the variation in wages ($R^2=0.27$, $F(11, 614)=20.45$, $p<0.001$). Feminine gender role (B=–0.034, $p<0.05$) was a significant predictor of annualized wages at the $p<.05$ level, but biological sex was only marginally significant (B=0.031, p=0.062). Black or African American (B=–0.050, $p<0.05$) and Hispanic (B=–0.092, $p<0.01$) respondents had lower annualized wages compared to White respondents. Years of education (B=0.037, $p<0.001$) and time in industry (B=0.007, $p<0.001$) were

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Table 5. Ordinary least squares (OLS) regressions predicting logged annual wages by sector (matched sample)

Variable	B (SE) for Model 1 (private sector)	B (SE) for Model 2 (public sector)
Biological sex	0.031 (0.016)****	0.038 (0.017)*
Feminine gender role	–0.034 (0.016)*	–0.009 (0.018)
Personal characteristics		
Age	0.001 (0.001)	0.000 (0.001)
White (reference)	N/A	N/A
Asian	–0.024 (0.029)	–0.016 (0.037)
Black or African American	–0.050 (0.021)*	–0.018 (0.021)
Hispanic	–0.092 (0.032)**	–0.031 (0.032)
Other race	0.011 (0.040)	0.023 (0.040)
Education	0.037 (0.004)***	0.033 (0.003)***
Job characteristics		
time in position	–0.003 (0.002)****	0.002 (0.002)
time with employer	0.003 (0.002)	0.000 (0.003)
time in industry	0.007 (0.002)***	0.008 (0.002)***
Constant	4.007 (0.064)***	4.037 (0.063)***

* p<0.05, ** p<0.01, *** p<0.001, **** p<0.10.

significantly positively correlated with pay.

Turning to public sector employees, Model 2 was significant and explained 31% of the variation in annualized wages (R^2=0.31, F(11, 498)=19.46, p<0.001). Biological sex was a significant predictor of wages (B=0.038, p<0.05), with males earning more than females; however, feminine gender role was not significantly associated with wages (B=–0.009, p=0.63). Education (B=0.033, p<0.001) and time in industry (B=0.008, p<0.001) were positively associated with annualized wages. Unlike the private sector model, feminine gender role did not contribute significantly to wage differences among public sector employees. This pattern is consistent with the hypothesis that more standardized compensation systems in the public sector reduce the wage penalty associated with feminine gender role characteristics. The significant differences based on race also were not present in the public sector sample.

Discussion and Conclusion

Past research has repeatedly demonstrated that, on average, females earn less than males and females are more likely to report exhibiting feminine characteristics compared to males. Both of these patterns were represented in the sample selected for this research. While not novel, these two hypotheses confirm the drawn sample aligns with the documented historical patterns from the pay equity and gender role literatures. This pattern was important to establish since this work is intended to bridge these literatures by arguing that gender role, and not just biological sex, is associated with pay. Specifically, it was hypothesized that the feminine gender role would be negatively associated with wages since the broader work environment is incongruent with this gender role.

The Blinder-Oaxaca decomposition analysis showed a weak, negative relationship between the feminine gender role and wages. Those who reported exhibiting the feminine gender role earned approximately 2.86% less than otherwise similar respondents regardless of biological sex, a finding that is consistent with the existence of a feminine gender role penalty. However, as previously noted, females are more likely to report they exhibit feminine behaviors. As a result, female respondents

were more likely to experience this wage penalty.

This is a relatively weak effect for a single variable. However, earnings accumulate over a lifetime of work. If earnings for an individual are $20,000 per year, this would amount to $572 per year and $17,160 over a thirty-year career, assuming no wage increases occur. The impact of these lower earnings would likely continue to impact economic wellbeing into retirement since many systems are based on the ability to save during the working years, which would be hampered by lower earnings overall, or defined benefit plans like social security in which benefits are calculated based on working year earnings. For an individual earning $100,000, the penalty would be $2,860 per year or $85,800 over thirty years. So, while the overall impact of the feminine gender role would be assessed as a weak impact from a statistical perspective, this seemingly small difference has large implications for the real economics of the individual. Again, this penalty may affect both males and females, but is more likely to impact females due to the greater likelihood of them reporting feminine characteristics.

There are a number of complexities that were not included in this particular analysis that are useful to consider in light of this finding. Historically, jobs that are perceived as more feminine, such as jobs that are care-based, also tend to be lower paid compared to jobs that are perceived as more masculine (review provided by Davison & Burke, 2000). Additionally, role congruity bias leads to a pattern of hiring where women are more likely to get hired into feminine jobs and men more likely to be hired into masculine ones (Galos & Coppock, 2023). Other examples of negative wage impacts that are more likely to impact females than males are the motherhood penalty (Pepping & Maniam, 2020) and underemployment (De Jong & Madamba, 2001). These patterns, together with the findings from this research, suggest the possibility of a compounding penalty for feminine females, who have a greater likelihood of being hired into lower-paying female-dominated positions and then being paid less within those positions.

However, the impact of the feminine gender role appeared stronger in the private sector compared to the public sector. Among private sector employees, the feminine gender role was significantly, negatively associated with wages, but a significant relationship was not found for public sector employees. In the United States, public sector employers more frequently have pay systems based on seniority and formal pay scales, whereas private sector employers rely more heavily on merit determinations and unstructured pay scales (Choi, 2018). This suggests that the structure of compensation systems may be an important factor in reducing the observed relationship between the feminine gender role and wages.

Further useful avenues of research could include a different approach to data collection. For example, a longitudinal design could be employed in order to establish a methodologically stronger link between gender role and pay. Additionally, the current assessment was based on self-reported data collected as a convenience, which may be biased. Since wages, demographic characteristics, and gender role measures were all self-reported, the possibility of common method bias and social desirability bias cannot be fully eliminated. Although some of the impact of this bias was mitigated by the propensity score matching procedure and the inclusion of multiple control variables, a random sample and observational data in addition to self-reported information would be beneficial for clarity.

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While the BSRI was useful for this initial exploration as a validated tool, data collection processes that account for a broader range of gender identities and related gendered behaviors would also provide additional insight into the real impact of gender role bias and the role incongruency penalty. While the BSRI was developed in a different historical context of the 1970s, the agentic and communal relationships with gendered behavior persist. Rather than measuring gender identity, this study employed the BSRI as a measure of behavioral characteristics that are still relevant in today's context. Future research would benefit from evaluating whether more contemporary measures of gender role expression produce similar findings.

The cultural and temporal context of the research could also be enhanced through additional research. This study was performed at a particular moment in time within a particular set of cultural stereotypes and roles being examined. Further research would greatly benefit from 1. updating the data to determine if the patterns persist over a period of time, 2. exploring different ways of measuring gender roles as they change and adapt within a society, 3. expanding the geographic focus across national boundaries and into rural and suburban contexts within the United States, and 4. gaining more precise understandings of the relationship between gender role and pay within sub-communities (e.g., by race, sexual orientation, disability status, etc.).

Finally, explorations in different work environments could also be beneficial. Analysis by industry or occupation could be useful in establishing different patterns of relationships. For example, is the penalty the same in primarily female-dominated industries as in primarily male-dominated industries? The rise of remote work has also occurred since the original data collection. This could have an impact on the way in which feminine and masculine gender roles are understood and expressed in the workplace, which is currently unexplored. The findings related to sector of employment could also be expanded upon to better understand how the compensation structure in each are penalizing or rewarding gender role behaviors.

Overall, this study has provided an argument for the additional inclusion of gendered roles as a component of pay equity that warrants further investigation. The findings suggest that the feminine gender role may account for a small, but meaningful portion of pay differences and this may disproportionately impact female workers. However, there are also potential ways to moderate this impact, as evidenced by the non-significant association for the feminine gender role found in the public sector, which has a more structured pay system. The findings are consistent with the possibility that pay structures similar to those commonly found in the public sector, including pay ranges and transparent classifications, may help reduce some forms of pay inequity. Additional research is needed to determine whether these compensation structures are responsible for the reduced relationship observed in the public sector sample. This research also encourages organizations to examine their current practices to identify and remove instances where gender role biases may be impacting their hiring, promotion, and pay setting practices.

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