Gender Gaps in Reservation Wages:

Evidence from Italian Graduates

Vincenzo Scoppa ^{a, b*} Idola

Idola Francesca Spanò a

- a) Department of Economics, Statistics and Finance "Giovanni Anania", University of Calabria
 - b) Institute for the Study of Labor (IZA), Bonn

This version: 29 April 2025

Gender gaps in labor market outcomes have been typically attributed to individual characteristics, discrimination, and horizontal or vertical segregation. More recently, many studies have documented the role of gender differences in psychological attitudes. Using data on individual reservation wages — the minimum wage a worker is willing to accept — for a sample of Italian graduates, this study offers new evidence along these lines. We investigate gender differences in reservation wages based on individual characteristics, differences in the expected wage and in the expected probability of finding a job and differences in demand for job-attributes (such as part-time, flexibility, or location). We apply the Gelbach's decomposition to quantify the contribution of each group of factors in explaining the gender gap. Our findings reveal a large unexplained component, which is likely due to gender differences in psychological attitudes, such as overconfidence and the "propensity to ask".

Keywords: Gender Gaps; Labor Market Graduates; Psychological Attitudes; Behavioral Economics.

JEL Classification Codes: J16, J32; D83, D91.

^{*} I. F. Spanò, Department of Economics, Statistics and Finance "Giovanni Anania", University of Calabria. E-mail: idola.spano@unical.it. V. Scoppa, Department of Economics, Statistics and Finance "Giovanni Anania", University of Calabria. E-mail: v.scoppa@unical.it.

1. Introduction

While significant changes have reshaped the labor market in recent decades, gender differences in earnings, career choices, and industrial and occupational segregations continue to endure (Bertrand et al., 2010; Blau & Kahn, 2017; Olivetti & Petrongolo, 2016). The persistence of these gaps, along with the growing influence of psychological literature into economics research, has prompted researchers to analyze alternative explanations, placing great emphasis on the role of gender differences in psychological attributes and preferences.

A large body of laboratory-based research has documented systematic gender differences in risk preferences, attitudes towards competition, social preferences, and negotiation (Eckel and Grossman, 2008; Croson and Gneezy, 2009; Bertrand, 2011, 2018). In particular, relative to men, women tend to be more risk-averse (Eckel & Grossman, 2002; Falk et al., 2018; Gneezy & Potters, 1997), less willing to engage in competitive environments (Gneezy et al., 2003; Gneezy & Rustichini, 2004; Niederle & Vesterlund, 2007), and exhibit lower degree of self-confidence (Beyer & Bowden, 1997; Lundeberg et al., 1994; Niederle & Vesterlund, 2007). Moreover, women are more inclined to perform tasks with low impact on career advancement (Babcock et al., 2017), are more reluctant to "ask" and face greater difficulties and anxiety in negotiations (Babcock & Laschever, 2003; Bowles, 2013; Bowles et al., 2005, 2007).

In this paper, we aim to investigate the existence of gender differences in the reservation wages among a relatively homogeneous sample of Italian graduates at the beginning of their careers. Unlike actual wages, which are influenced by external factors and employer decisions, the reservation wage – defined as the minimum compensation an individual is willing to accept for a job – reflects personal threshold and plays a central role in traditional job search models, labour supply decisions and labor market participation (Lancaster & Chesher, 1983; Mortensen, 1986; Rogerson et al., 2005). Reservation wages are also important since they tend to influence actual wages by establishing the lower bound in wage negotiations and affect individuals' job search strategies and acceptance decisions.

Despite the extensive research on gender disparities in the labor market, comparatively less attention has been paid to gender differences in reservation wages. Recent studies show that women tend to report lower reservation wages than men (Brown et al., 2011; Caliendo et al., 2017; Khan & Majid, 2020; McGee & McGee, 2025), and that this gap contributes significantly to the overall gender differential observed in actual wages. However, most of these studies have primarily focused on quantifying the extent of the gap rather than exploring its underlying mechanisms.

Focusing on recent graduates is particularly relevant as they represent individuals on the verge of entering the labor market. Two key considerations motivate our choice. First, initial labor market conditions can have lasting effects on career trajectories (Oreopoulos et al., 2012; Oyer, 2006). Second, salary benchmarks for job transitions are often based on previous earnings, potentially reinforcing pre-existing disparities (Hansen & McNichols, 2020). Moreover, the Italian context, characterized by a rigid labor market and large gender employment gaps, provides a compelling case study. Therefore, investigating gender differences in reservation wages at this early stage and in this context may be crucial to mitigate long-term inequality dynamics.

Our empirical strategy unfolds in three main steps. First, we estimate gender differences in reservation wages, controlling for a rich set of individuals, academic, and family background characteristics. Building on McCall's (1970) seminal job search model, we further include measures of wage expectations and employment probabilities from the full population of graduates. In the second step, we assess whether job-related preferences — such as preferences for part-time work, self-employment, or geographic mobility — help explain these differences. Despite the inclusion of these controls, we find a statistically significant gender gap, with women setting on average lower reservation wages than men by approximately 7-15 percentage points.

Finally, we apply the Gelbach's decomposition to assess the relative contribution of each group of variables to the observed gender gap. Our results suggest that preferences for job attributes and labor market expectations, more than demographic characteristics, education, or geographic location, play a decisive role in explaining the difference in reservation wages between men and women among Italian graduates. Nevertheless, a substantial unexplained component of the gap remains, which we attribute to gender differences in psychological attributes, such as overconfidence and the "propensity to ask".

Our work is related to the strand of research that investigates how gender differences in psychological attributes and preferences contribute to persistent gender gaps in labor market outcomes. These differences – such as in risk tolerance, competitiveness and negotiation behavior – can shape key career choices. For instance, they may contribute to explaining women's underrepresentation in high-paying and highly competitive occupations. Empirical research indicates that individuals more willing to take risks are more likely to sort into higher-earning occupations (Bonin et al., 2007), prefer performance-based pay schemes (Sliwka & Grund, 2006), and have a greater probability of becoming entrepreneurs (Caliendo et al., 2009). Likewise, Buser et al. (2024) find evidence that individuals with a stronger willingness to compete tend to earn significantly higher salaries, are more likely to hold a high-level managerial or professional position and often choose to pursue prestigious college majors that lead to better financial outcomes.

In terms of overconfidence, several studies have shown that both genders tend to overestimate their abilities, knowledge, future prospects, as well as earning expectations. Still, men exhibit greater levels of overconfidence than women (Barber & Odean, 2001; Niederle & Vesterlund, 2007; Reuben et al., 2015), which may increase their likelihood of entering riskier situations.

Another relevant line of research on gender gap in career advancement has focused on whether men and women differ in the tasks they perform at work and how these differences influence their career trajectories. The literature distinguishes between *high-promotability tasks*, which are likely to enhance performance evaluations, and *low-promotability tasks*, which benefit the organization but contribute less to performance evaluations and career progressions. A critical question is whether women allocate less time to high-promotability tasks than men and more time to low-promotability tasks, which may help explain their slower advancement. Babcock et al. (2017), for example, analyze task allocation within academic faculties — where research-related tasks are generally viewed as more promotable than service-related tasks — and find that women not only volunteer for low-promotability tasks 50% more often than men, but are also more frequently asked to volunteer for low-promotability tasks.

Beyond psychological traits, another area of study has focused on how gender differences in job search behavior contribute to the gender gaps observed in labor market outcomes (Barbulescu & Bidwell, 2013; Correll, 2001; Cortés et al., 2023; England & Li, 2006; Fluchtmann et al., 2023; Lochner & Merkl, 2023; Topa et al., 2017). While early studies laid the foundation for understanding these dynamics, more recent contributions leverage new data and methodologies to refine our understanding of the mechanisms at play. For example, Cortés et al. (2023) assess the role of psychological attributes and behavioral biases in the job search process of undergraduate business majors. Their findings highlight a clear gender difference in the timing of job offer acceptance, with women accepting jobs substantially earlier than men, and a substantial gender earnings gap in accepted offers, which narrows over time. To understand these patterns, the authors develop a job search model that accounts for gender differences in risk aversion, overoptimism about future offers, and learning (i.e., the process of updating expectations about job offers), validated through survey data. In line with existing literature, they found that male students exhibit significantly greater risk tolerance and higher upward-biased beliefs about future earnings than their female counterparts. While both genders update their expectations downwards as the job search progresses, men do so at a slower pace.

Similarly, Fluchtmann et al. (2023), examining the so-called gender application gaps – that is, differences in the types of jobs men and women apply for - show that women tend to apply for lower-paying jobs. Using a standard decomposition method (DiNardo et al., 1996), they further show that gender differences in job applications can explain over 70 percent of the residual gender gap in starting wages.

A related issue in gender differences concerns the wage expectations gap prior to entering the labor market (Fernandes et al., 2021; Filippin & Ichino, 2005; Major & Konar, 1984; Reuben et al., 2017; Smith & Powell, 1990). For instance, Briel et al. (2022) investigate gender differences in expected starting salaries among university students in Germany. Their findings reveal that women, on average, expect 5–15% lower wages than men. Notably, the gender gap is wider when students estimate their own future salaries compared to expectations about their peers' salaries, consistent with evidence that women are more socially oriented and tend to undervalue themselves relative to others.

In a similar way, Kiessling et al. (2024) examine the gender gap in wage expectations and how it relates to individuals' intentions to negotiate starting salaries. Drawing on data from the "Fachkraft 2020" study on German students, their findings reveal that women tend to anticipate significantly lower starting wages than men. More importantly, they document that this gap in expectations widens over the course of individuals' careers, increasing from an initial gap of 14 percent at labor market entry to 27 percent by the age of 55. In addition, they explore how differences in expected wages are linked to varying degrees of boldness in plans for initial wage claims. Their findings indicate that women tend to be less bold in wage negotiations - that is, they less inclined to engage in assertive negotiations. This lower level of boldness accounts for approximately 14–15% of the gender gap in expected starting wages.

A novel explanation that has gained prominence in recent decades for the persistence of gender gaps centers on women's lower propensity to "ask" for what they want. The concept of "asking" is employed as a framework to explore how women engage in negotiation more broadly (Babcock & Laschever, 2003). The

literature has extensively documented women's reluctance to negotiate. Compared to men, they are less likely to initiate negotiations, feel discomfort when requesting more than they have, and experience heightened anxiety about negotiating. Such anxiety can act as a deterrent, preventing them from asking or undermining their ability to negotiate effectively. Additionally, women are more likely to perceive situations as more fixed or absolute, viewing them as less negotiable than men typically do (Babcock et al., 2003, 2013; Small et al., 2007).

Nonetheless, this tendency to shy away from negotiation comes at a significant long-term cost. Research has shown that even small differences in starting salaries can lead to considerable disparities in cumulative income over the course of a career (Bowles et al., 2005; Gerhart & Rynes, 1991; Wood et al., 1993). This is partly because initial salaries often serve as the basis for future increases, which are commonly calculated as percentages of base pay (Milkovich & Newman, 1987). Furthermore, early compensation can shape future job offers, as employers frequently determine pay for experienced hires by referencing their previous earnings (Adler, 2022; Cullen et al., 2022; Gibbons & Waldman, 1999).

A compelling example of how the decision to negotiate—or not—can affect earnings from the very outset of a career is provided by Babcock (2002), who examined gender differences in starting salaries among graduate students from Carnegie Mellon University. She found that men were earning, on average, 7.6 % (nearly \$4,000) more than their female peers. A closer analysis revealed that, although students were strongly encouraged to negotiate their job offers, only 7% of female students engaged in negotiations, compared to 57% of male. Those who negotiated managed to gain, on average, a 7.4 percentage-point increase over their initial offer. These findings suggest that the salary gap could have been significantly reduced — or even eliminated — had female students engaged in negotiation, thus highlighting the importance for women to learn to ask.

In our opinion, understanding gender differences in reservation wages can provide valuable insights on deeper psychological attitudes, such as individuals' self-perceived value and negotiation behavior, with important implications for long-term labor market outcomes. If women systematically set lower reservation wages than men, this may reflect a lower self-evaluation of their value, potentially translating into a reduced willingness to negotiate or to advocate for higher compensations. In this sense, reservation wages can serve as a proxy for self-perceived bargaining power, negotiation intent, and, more broadly, the propensity "to ask". Investigating these differences is therefore essential to understanding the potential drivers of persistent gender disparities in labor market outcomes and to informing policies aimed at promoting more equitable labor market participation and wage-setting practices.

The remainder of the paper is organized as follows. Section 2 describes the data and shows descriptive statistics. In Section 3 we carry out our main empirical analysis. In Section 4 we incorporate individual preferences for job characteristics and discuss their contribution to the gender reservation wage gap. Section 5 reports the results from the Gelbach decomposition. Section 6 concludes.

2. The Data

Our data source is a nationally representative survey conducted by ISTAT (Italian National Statistical Institute) in 2015 on individuals who graduated from Italian universities in 2011 (*Inserimento professionale dei laureati - Indagine 2015*). The survey includes graduates from First Level Degree programs, Second Level degree programs, and single-cycle degree programs¹.

The dataset aims to gather data on the conditions of graduates about four years after graduating, with the goal of examining their transition from university to the job market. To this end, it provides detailed information on respondents' academic backgrounds, their current and past employment status, along with a range of individual characteristics, and socio-economic characteristics of their parents.

Our dependent variable is derived from the "Job search" section of the survey. Respondents are first asked whether they are currently looking for a job, regardless of their employment status. Those who are unemployed and report being in search of a job or those who are currently employed and are looking for a new job are then asked to state their reservation wage - the minimum net monthly salary they would be willing to accept to start a new job. Among the 58,400 graduates surveyed, 22,605 (almost 39%) were job searching. Among these graduates searching for a job, 57% (12,959) were already employed.

For the purpose of this paper, we restrict the sample to graduates who were job searchers. Therefore, our estimation sample is based on 22,605 individuals.

Table 1 reports the descriptive statistics of the main variables used in the analysis.

About 59 % of individuals in our sample are women and only 1.4 % of them are not Italian citizens. In terms of marital status, the majority of graduates (86%) are single and nearly 13 % are married.

Regarding academic background, 48% of graduates earned a bachelor's degree, 38% completed a master's degree, and the remaining 14% graduated under the old university system or completed a single-cycle degree program. On average, graduates achieved a final grade of 102.

Age at graduation varies considerably: nearly 9% completed their degree before turning 22, while 26% graduated between the ages of 23 and 24. The largest group, accounting for almost 50% of the sample, obtained their degree between 25 and 29 years old, whereas 15% graduated at age 30 or older.

As for the fields of study, the highest concentrations of graduates are found in Economic-Statistical (12%), Political-Social (12%), Engineering (12%), and Medical (10%) disciplines. A significant proportion of graduates are also observed in Law (10%) and Literary studies (8%). Other fields, such as Geo-Biological (7.5%), Architecture (5.7%), and Linguistic disciplines (4.2%), have lower but still notable shares.

^{7.1}

¹ Following the Bologna Declaration (1999), the Italian university system underwent a major reform and, since 2001, has adopted the so-called "3+2" model. This structure consists of a First Level Degree (*Laurea di primo livello*), which lasts three years, followed by a Second Level Degree (*Laurea specialistica*), lasting two years. Alongside these, a limited number of single-cycle degree programs (*Laurea a Ciclo Unico*) are offered - typically lasting five years – such as those in Law, Architecture, and Pharmacy. In addition, a few degree programs from the previous system (*Laurea del vecchio ordinamento*), lasting between four and six years, remain active. This reform was formally introduced by Ministerial Decree No. 509/1999 and later revised by Ministerial Decree No. 270/2004, which currently regulates the system. Please note that, in the data, single-cycle and old system degree programs are grouped under the same category.

Table 1. Descriptive Statistics

Table 1. Descriptive Statistics	Mean	Std. Dev.	Min	Max	N
Reservation wage	1335.093	518.106	450	3500	22605
Female	0.585	0.493	0	1	22605
Immigrant	0.014	0.117	0	1	22605
Married	0.134	0.341	0	1	22605
First level degree	0.483	0.500	0	1	22114
Second level degree	0.375	0.484	0	1	22114
Old system/single-cycle degree	0.142	0.349	0	1	22114
Degree grade	102.499	7.980	66	111	22605
Age at graduation:					
≤ 22 years old	0.088	0.283	0	1	22605
23-24 years old	0.263	0.440	0	1	22605
25-29 years old	0.497	0.500	0	1	22605
\geq 30 years old	0.151	0.358	0	1	22605
Field of study:					
Scientific	0.034	0.180	0	1	22114
Chemical-Pharmaceutical	0.024	0.154	0	1	22114
Geobiology	0.075	0.263	0	1	22114
Medical	0.102	0.303	0	1	22114
Engineering	0.118	0.323	0	1	22114
Architecture	0.057	0.232	0	1	22114
Agriculture	0.025	0.157	0	1	22114
Economic-Statistical	0.121	0.326	0	1	22114
Political and Social	0.123	0.329	0	1	22114
Law	0.097	0.297	0	1	22114
Literature	0.081	0.273	0	1	22114
Linguistics	0.042	0.201	0	1	22114
Education	0.025	0.157	0	1	22114
Psychology	0.034	0.181	0	1	22114
Physical Education	0.040	0.197	0	1	22114
Defense and Security	0.000	0.018	0	1	22114
Lyceum - High school	0.711	0.453	0	1	22509
Technical/Professional school	0.289	0.453	0	1	22509
High School Grade	82.749	12.608	60	101	22342
Employed	0.573	0.495	0	1	22605
North-west	0.225	0.418	0	1	22605
North-east	0.159	0.366	0	1	22605
Centre	0.212	0.409	0	1	22605
South	0.256	0.436	0	1	22605
Islands	0.108	0.310	0	1	22605
Abroad	0.040	0.195	0	1	22605
Years of education - father	11.782	4.051	5	18	22312
Years of education - mother	11.674	3.985	5	18	22362
Employed father	0.959	0.198	0	1	22605
Employed mother	0.607	0.488	0	1	22605
Notes: Data from the Italian National Statistic		7	2		22003

Notes: Data from the Italian National Statistical Institute (ISTAT) - Inserimento professionale dei laureati

Regarding secondary education, 71% attended a lyceum as a secondary school, while 29% attended a technical or professional school. Their average high school grade is 83.

⁻ Indagine 2015.

Four years after graduation, 57% are employed. A greater proportion of graduates live in the northern regions of the country, with 22% in the North-West and 16% in the North-East. About 21% live in Central Italy, 26% in the South, and 11% in the Islands. Only 4% of graduates are based abroad.

Finally, regarding socioeconomic background, graduates' parents have similar levels of education, with on average 11.8 years of schooling for fathers and 11.7 for mothers. However, a significant disparity emerges in employment rates: 96% of fathers were employed, compared to nearly 61% of mothers.

3. An Econometric Analysis of Individual Reservation Wage

In this section, we investigate gender differences in reservation wages among Italian graduates. To estimate the determinants of a worker's reservation wage, we refer to McCall's (1970) seminal job search model.

In the simplest job search model, it is assumed that job seekers know the wage distribution corresponding to their skills. Job offers arrive periodically (at the arrival rate λ) as independent random draws from the wage distribution. The worker can either accept the offer or reject it, in which case they receive an unemployment benefit, b, while continuing their search. In this framework, a worker will accept a job if the offered wage, W, is at least equal to or greater than their reservation wage, W. In other words, the reservation wage represents the value that makes the worker indifferent between the choice of accepting a job offer and rejecting it in favor of receiving the unemployment benefit.

In this framework, an increase in unemployment benefits leads to a rise in the reservation wage by improving individuals outside options during the job search process. Similarly, a higher rate of arrival of job offers (i.e., more frequent opportunities) increases the reservation wage, as workers can afford to be more selective and reject lower-paying offers. A rise in the expected wage also results in an increase in the reservation wage, as it is more convenient to continue searching and waiting for better offers rather than accepting a lower salary. In contrast, the reservation wage is a negative function of individual's level of impatience (also indicated as discount rate (r)): more eager individuals value future gains less than immediate ones; therefore, to secure a better offer today, they are willing to lower their reservation wage.

Following this framework, we estimate a number of OLS models to examine the presence of gender differences in the reservation wage among Italian graduates. We employ the following model:

$$ln(Reservation\ Wage_i) = \beta_0 + \beta_1 Female_i + \beta_2 X_i + \beta_3 R_i + \beta_4 F_i + \beta_5 P_i + \varepsilon_i$$

where $Reservation\ Wage_i$ measures the monthly reservation wage for graduate i, X_i is a vector of individual characteristics and educational background, R_i is a set of dummy variables for the area of residence, F_i is a vector of field of study, P_i is a vector representing parents' socioeconomic status, and ε_i is an error term. Our parameter of interest is β_1 , the coefficient of the Female indicator variable.²

variables in P_i refer to each parent's level of education and employment status when the graduate was 15 years old.

 $^{^2}$ The vector $\mathbf{R_i}$ includes geographic area dummies classified as North-West, North-East, Centre, South, Islands, and abroad. The vector $\mathbf{F_i}$ contains dummies for the field of study, grouped into the following categories: Scientific, Chemical-Pharmaceutical, Geo-Biological, Medical, Engineering, Architecture, Agricultural, Economic-Statistical, Political-Social, Law, Literary, Linguistic, Education, Psychological, Physical Education, and Defense and Security. Parental background

Results are presented in Table 2. Starting from the first specification, which controls for a set of individual characteristics, educational background, and area of residence, we find that, on average, women have a monthly reservation wage that is 17 percentage points (p.p. thereafter) lower than that of men with similar characteristics.

Table 2. Gender Differences in Reservation Wage. OLS estimates.

	(1)	(2)	(3)	(4)	(5)
Female	-0.172***	-0.146***	-0.149***	-0.145***	-0.144***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Degree grade	-0.001***	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
First level degree	-0.094***	-0.077***	-0.085***	-0.078***	-0.075***
-	(0.009)	(0.010)	(0.019)	(0.010)	(0.010)
Second level degree	-0.005	0.019**	0.006	0.019**	0.020**
-	(0.009)	(0.009)	(0.019)	(0.009)	(0.009)
Lyceum	-0.021***	-0.007	-0.011**	-0.010*	-0.014**
•	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
High School Grade	0.002***	0.000**	0.000**	0.000**	0.000**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Employed	0.221***	0.204***	0.205***	0.204***	0.204***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Married	-0.004	-0.012	-0.012	-0.013*	-0.011
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
North-east	-0.049***	-0.052***	-0.048***	-0.052***	-0.052***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Centre	-0.041***	-0.049***	-0.043***	-0.048***	-0.048***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
South	-0.050***	-0.057***	-0.048***	-0.057***	-0.056***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Islands	-0.026***	-0.028***	-0.018**	-0.026***	-0.027***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Abroad	0.174***	0.176***	0.165***	0.177***	0.173***
1101044	(0.015)	(0.014)	(0.014)	(0.014)	(0.014)
Father's education	(0.010)	(0.01.)	(0.01.)	0.001	(0.01.)
				(0.001)	
Mother's education				0.001)	
Wiether 5 education				(0.001)	
Employed father				-0.004	
Employed famel				(0.013)	
Employed mother				0.001	
Employed moulei				(0.005)	
Constant	7.178***	7.188***	7.109***	7.174***	7.201***
Constant	(0.039)	(0.042)	(0.042)	(0.044)	(0.043)
Observations	21864	21864	21864	21488	21864
Adj R ²	0.194	0.247	0.252	0.250	0.248
Field of study dummies	No	Yes	No	Yes	Yes
Degree course dummies	No	No	Yes	No	No
Parents' occupation	No	No	No	No	Yes
dummies	1110	110	110	110	ies

Notes: The Table reports OLS estimates. The dependent variable is $\ln(Reservation\ wage)$. Dummies for age at graduation are included in all specifications but are not reported for brevity. Similarly, columns 2-5 include a dummy for immigrant status. Standard errors, reported in parentheses, are corrected for heteroskedasticity. The symbols ***, ** indicate that the coefficients are statistically significant at the 1, 5, and 10 percent level respectively.

The findings from this specification reveal several interesting patterns. First, employed individuals tend to set higher reservation wages, potentially reflecting the greater experience and skills acquired over time, which they expect to be adequately compensated for. Second, a higher high school grade is positively associated with reservation wage, suggesting that early academic performance may shape individuals' expectations about their value in the labor market. Although not shown in the table, age at graduation shows no significant impact for younger graduates, whereas those who obtained their degree at 30 or later tend to have significantly higher reservation wages (+ 6 p.p.). This may stem from a deeper understanding of labor market dynamics that later graduates tend to acquire, which strengthens their bargaining power and salary expectations.

Likewise, those holding a first-level degree generally present a lower reservation wage compared to those who graduated under the old university system or a single-cycle program, suggesting that more educated individuals tend to expect higher compensation. Coherently, no significant differences are observed when compared with master's graduates.

Territorial differences stand out as particularly striking. Individuals residing in the North-West of Italy tend to establish higher reservation wages, with the most pronounced gap observed between the North-West and the South, where graduates ask for 5 p.p. less on average. Finally, those living abroad have the highest reservation wages, requesting on average 17 p.p. more than their domestic counterparts.

In column (2), we enrich our model by including a set of dummies for the field of study, allowing us to account for potential variation related to different academic disciplines. Even after this adjustment, the gender gap in reservation wages remains substantial, with women presenting, on average, a reservation wage that is 15 p.p. lower than that of men. In column (3), we replace the field-of-study dummies with a more granular set of 144 degree-course dummies, capturing finer distinctions across educational backgrounds. Remarkably, the estimates remain stable, and the gender gap persists at 15 p.p.

In the fourth and fifth specifications, we further extend our analysis by adding parental socio-economic backgrounds as additional explanatory variables. Specifically, in column (4), we include years of education separately for mothers and fathers, along with dummies indicating whether each parent is employed. In column (5), we replace these controls with dummies for whether each parent holds a university degree and introduce a more detailed set of dummies for parental occupational status.³ Despite the inclusion of these additional controls, women continue to set significantly lower reservation wages than men, stable at -15 p.p., all else being equal.

As explained above, according to the seminal job search model (McCall, 1970), an individual's reservation wage crucially depends on three main factors: the expected wage; the probability of finding a job; and the individual's time preference for money, typically represented by the discount rate. Each of these components influences the reservation wage in a specific way.

10

³ Disaggregation details: occupational status dummies include Executive/Manager; Middle manager; White-collar worker; Blue-collar worker; Entrepreneur; Freelancer; Self-employed worker; Contributing family worker/Cooperative member.

First, higher expectations about wages shift upward the minimum wage an individual is willing to accept to start a job: individuals are less likely to accept low offers when they anticipate better opportunities. Second, a greater probability of finding a job also tends to raise the reservation wage: when job opportunities are abundant, the cost of rejecting a current offer decreases, strengthening the worker's bargaining power. Conversely, a higher discount rate - reflecting greater impatience or a stronger preference for immediate income - reduces the value of waiting for future offers, thereby lowering the reservation wage.

In our study, we are able to control for two of these determinants using available data. We build a proxy of individual's expected wage by assuming they form rationale expectations and calculating the expected wage as the average wage observed in the population of graduates, disaggregated by field of study (16 categories), geographic area (6 macro-regions), and gender (2 categories). Similarly, we build a proxy for the expected probability of employment using average employment rates at the same level of disaggregation.

Although individual discount rates are not directly observable in our study, the existing literature suggests that women tend to exhibit greater patience than men, implying lower discount rates. For instance, using data from the German Socio-Economic Panel, Dohmen et al. (2011) found that women display greater levels of patience in time preference experiments. Similarly, Croson & Gneezy (2009), in their review of a broad range of experimental studies, confirmed systematic gender differences, with women generally being more patient than men. Supporting this evidence on a global scale, Falk & Hermle (2018) showed that, in most countries, women exhibit greater patience in intertemporal choices compared to men. This higher degree of patience should, in principle, lead to a higher reservation wage for female.

In Table 3, we examine gender differences in reservation wages in light of the theoretical model by including the proxies for expected wages and the probability of finding a job. Across columns, we progressively introduce the sets of control variables as done in the previous estimations. All specifications account for territorial differences using area-of-residence dummies, while variations across academic disciplines are captured through either field-of-study or degree-course dummies in columns (4) and (5) respectively.

In column (1), we consider only individual characteristics and academic background as done in column (2) of Table 2. Consistent with the model's predictions, both the expected wage and the likelihood of employment positively influence an individual's reservation wage. The impact of the expected wage is particularly strong: a 1 p.p. increase in the expected wage raises individual reservation wage by 44 p.p. on average. Similarly, a one-unit increase in employment probability results in an approximate 11 p.p. increase

⁴ Disaggregation details: Fields of study include Scientific, Chemical-Pharmaceutical, Geo-Biological, Medical, Engineering, Architecture, Agricultural, Economic-Statistical, Political-Social, Legal, Literary, Linguistic, Education, Psychological, Physical Education, and Defense and Security. Geographic areas are classified as North-West, North-East, Centre, South, Islands, and abroad. Gender categories refer to female and male.

⁵ For example, the expected wage for male graduates in the field of Medicine living in the North-West is €1,570, while for females it is approximately €1,484. The corresponding employment probabilities are 81% for men and 80.6% for women. In the South of Italy, expected wages decrease to €1,350 for men and €1,258 for women, with employment probabilities of 62% for men and 57% for women. For graduates in Engineering, expected wages in the North-East amount to €1,521 for men and €1,445 for women, with employment probabilities of 83% and 79%, respectively. For those living abroad, expected wages rise to €2,409 for men and €2,275 for women, with employment probabilities of 73% for men and 59% for women.

in the reservation wage. Crucially, even after accounting for these factors, a significant gender gap remains: on average, women set their reservation wage almost 10 p.p. lower than men, ceteris paribus.

Table 3. Gender differences in reservation wage. OLS Estimates

	(1)	(2)	(3)	(4)	(5)
Female	-0.096***	-0.116***	-0.096***	-0.115***	-0.114***
	(0.006)	(0.007)	(0.007)	(0.008)	(0.007)
Expected wage	0.443***	0.208***	0.331***	0.213***	0.207***
	(0.015)	(0.038)	(0.029)	(0.039)	(0.038)
Expected Employment	0.106***	0.105*	0.170***	0.115**	0.104*
Prob.					
	(0.029)	(0.058)	(0.045)	(0.058)	(0.058)
Constant	3.971***	5.712***	4.670***	5.651***	5.728***
	(0.114)	(0.280)	(0.203)	(0.282)	(0.281)
Observations	21864	21864	21864	21488	21864
Adj R ²	0.155	0.183	0.194	0.186	0.185
Area of residence	Yes	Yes	Yes	Yes	Yes
dummies					
Field of study dummies	No	Yes	No	Yes	Yes
Degree course dummies	No	No	Yes	No	No
Parents' education	No	No	No	Yes	Yes
Parents' employment	No	No	No	Yes	Yes
status					

Notes: The Table reports OLS estimates. The dependent variable is the *ln(Reservation Wage)*. The same sets of regressors shown in Table 2 are included in the estimates but omitted for conciseness. Standard errors, reported in parentheses, are corrected for heteroskedasticity. The symbols ***, **, * indicate that the coefficients are statistically significant at the 1, 5, and 10 percent level, respectively.

This tendency for women to set a lower reservation wage remains robust as we expand the model to include individuals' academic background (field-of-study dummies in column (2) and degree-course dummies in column (3)), as well as parental education and employment status (as detailed in Table 2). The gender gap remains between 10 and 11 percentage points.

The findings reported so far are particularly significant, as they underscore the crucial role that gender differences in attitudes play. According to the predictions of the job search model, both wage expectations and employment probability — both of which are accounted for in our analysis — should positively affect the reservation wage. Additionally, given the favorable effect of women's greater patience, as highlighted in the literature, we would have expected no gender gap, or even one in favor of women. Contrary to these expectations, however, we document a remarkably robust gender gap in reservation wages among our graduates. The persistence of the observed difference suggests that it may be driven by behavioral differences between women and men — possibly related to a stronger reluctance among women to ask — ultimately resulting in lower reservation wages.

4. Incorporating Gender Differences in Job Preferences into Reservation Wage Gap Analysis

A substantial body of research has identified gender differences in preferences for job characteristics as a key factor contributing to gender disparities in labor market outcomes. Empirical studies show that men and women

assign different value to specific job attributes. In particular, the evidence supports the hypothesis that women value flexibility at work more than men do (Bertrand, 2018; Bertrand et al., 2010). For instance, Wiswall and Zafar (2018) assess students' willingness to pay for different job attributes and find that female undergraduates are more willing than their male peers to pay for jobs that offer greater work flexibility. Furthermore, women display a greater propensity to accept lower wages in exchange for job stability and are more willing to pay for part-time job options. In contrast, male students are more likely to prioritize jobs that offer higher long-term earnings growth. These gender-based differences in job preferences explain a substantial portion of the early-career gender wage gap.

In this section, we examine whether gender differences in job-related preferences are present in our sample and assess the extent to which they contribute to the gender gap in reservation wages. In the "Job search" section of the survey, individuals currently seeking employment – both employed and unemployed - are asked about their preferences regarding various job characteristics. Specifically, we focus on whether men and women differ in their preferences for part-time work, self-employment versus salaried positions, and their willingness to work abroad or relocate within the country.

The results are presented in Table 4 below. Each specification includes a range of individual characteristics, as well as dummies for area of residence and field of study. For convenience, the table reports only the coefficient for the female indicator, along with the predicted values for male graduates, assuming average values for all other characteristics.

Table 4. Gender differences in preferences for job attributes. OLS Estimates

	Part-time	Self-employment	Employee	Work abroad	National mobility
Female	.059***	056***	.084***	202***	041***
	(.005)	(.005)	(.007)	(.007)	(.004)
Predicted value for male	0.087	0.134	0.486	0.676	0.911
Observations	21864	21864	21864	21864	21864
Adj R ²	.051	.017	.045	.129	.045
Individual characteristics	Yes	Yes	Yes	Yes	Yes
Area of residence dummies	Yes	Yes	Yes	Yes	Yes
Field of study dummies	Yes	Yes	Yes	Yes	Yes

Notes: The Table reports OLS estimates. The dependent variables are reported at the top of each column. The predicted value for male is computed based on regression estimates, setting female = 0 and all other covariates to their sample means. Standard errors, reported in parentheses, are corrected for heteroskedasticity. The symbols ***, **, * indicate that the coefficients are statistically significant at the 1, 5, and 10 percent level respectively.

Our findings reveal significant gender differences in job-related preferences. On average, women are 6 p.p. more likely than men to prefer part-time work over full-time or to express no preference. They are also less inclined to pursue self-employment, with a 6 p.p. lower likelihood compared to men, and 8 p.p. more likely to favor salaried positions. In terms of job-related mobility, women demonstrate a significantly lower willingness to work abroad, with a 20-p.p. gap compared to men, and are also less likely to relocate within the country for work (-4 p.p.).

Overall, these preferences may reflect greater risk aversion among women and a stronger inclination towards job attributes that reflect flexibility. More broadly, these results suggest that underlying psychological or behavioral differences between men and women may play a significant role in shaping job search strategies and reservation wage setting.

To assess whether gender differences in job preferences contribute to the gender gap in reservation wages, we integrate these preferences into our model. The results are presented in Table 5.

Table 5. Gender differences in reservation wage with job-related preferences. OLS Estimates

	(1)	(2)	(3)	(4)
Female	-0.111***	-0.086***	-0.085***	-0.069***
	(0.005)	(0.007)	(0.007)	(0.006)
Pref. for self-employment	0.126***	0.125***	0.122***	0.154***
	(0.009)	(0.009)	(0.009)	(0.009)
Pref. for employee	0.021***	0.020***	0.020***	0.031***
	(0.005)	(0.005)	(0.005)	(0.005)
Pref. for part-time	-0.255***	-0.254***	-0.255***	-0.272***
-	(0.008)	(0.008)	(0.008)	(0.008)
Pref. for working abroad	0.072***	0.071***	0.071***	0.072***
· ·	(0.005)	(0.005)	(0.005)	(0.005)
Pref. for national mobility	0.022***	0.022***	0.023***	0.018**
•	(0.008)	(0.008)	(0.008)	(0.008)
Expected wage		0.195***	0.189***	0.275***
-		(0.036)	(0.036)	(0.027)
Employment likelihood		-0.101*	-0.112**	0.158***
		(0.055)	(0.054)	(0.043)
Constant	7.078***	5.704***	5.776***	4.963***
	(0.043)	(0.263)	(0.262)	(0.196)
Observations	21488	21488	21864	21488
Adj R ²	0.313	0.314	0.312	0.270
Area of residence dummies	Yes	Yes	Yes	Yes
Field of study dummies	Yes	Yes	Yes	Yes
Degree course dummies	No	No	No	Yes
Parents' education	Yes	Yes	Yes	Yes
Parents' employment status	Yes	Yes	Yes	Yes

Notes: The Table reports OLS estimates. The dependent variable is the *ln(Reservation Wage)*. The same sets of regressors shown in Table 2 are included in the estimates but not reported "to save space". Standard errors, reported in parentheses, are corrected for heteroskedasticity. The symbols ***, **, * indicate that the coefficients are statistically significant at the 1, 5, and 10 percent level respectively.

All specifications account for individual characteristics, academic background, area of residence, as well as parental education and employment status, consistent with the models estimated in the previous section. Starting from specification (2), we include proxies for expected wage and perceived likelihood of employment. Specification (3) adds the more detailed set of controls for parental employment status and educational attainment. Finally, in column (4), we replace field-of-study dummies with degree-course dummies.

Note that all job-related preferences are significantly associated with individuals' reservation wages. In detail, individuals who prefer self-employment tend to set a reservation wage that is approximately 13 p.p. higher, in line with the hypothesis that more risk-taker individuals tend to require higher compensation for

assuming the additional uncertainty associated with entrepreneurial activity. In contrast, those preferring salaried positions (i.e., being employed by someone else) set a reservation wage that is only 2 p.p. higher. Individuals who prefer part-time jobs exhibit a lower reservation wage, on average, by 26 p.p. This aligns with market trends, where part-time positions, offering greater flexibility, often come with a trade-off in terms of lower compensation. Lastly, individuals willing to work abroad set a higher reservation wage by approximately 7 p.p., while those willing to relocate within the country ask for a 2-p.p. higher wage.

Returning to our main objective, it is crucial to emphasize the persistence of the gender gap in reservation wages, despite the inclusion of job-related preferences across all specifications. The gap stands at 11 p.p. in column (1), where we additionally account for individual characteristics, area of residence, field of study, and parental background. Adding labor market expectations — expected wage and likelihood of employment — slightly reduces the gap to 9 p.p. (columns 2–3). In the final specification, where field-of-study dummies are replaced with degree-course dummies, the gap narrows to 7 p.p., while remaining statistically significant at the 1 percent level throughout.

Ultimately, our results highlight that gender differences in job preferences, although significant, do not fully explain the observed gap in reservation wages.

Overall, our findings allow us to assert that, even after accounting for a wide range of individual characteristics, labour market outcomes expectations, and job-related preferences, a significant gender gap in reservation wages persists. This may reflect underlying behavioral differences between women and men, leading the former to systematically set lower reservation wages than comparable male counterparts.

5. The Source of Gender Gap in Reservation Wages: A Gelbach Decomposition

In the previous sections, we investigated gender differences in reservation wages by sequentially including various sets of control variables. We started with a baseline specification that accounts for individual characteristics, academic background, area of residence, and parental background. Building on McCall's (1970) seminal contribution, we then incorporated expected wages and employment probabilities. Finally, having established the presence of gender differences in preferences over job attributes, we included these preferences in our model as well. Across all specifications, our results consistently show that women tend to set lower reservation wages than men with similar characteristics.

In this section, we delve deeper into the mechanisms underlying this gap by applying Gelbach's decomposition method (Gelbach, 2016). This approach generalizes the classical Oaxaca-Blinder decomposition (Blinder, 1973; Oaxaca, 1973) and allows us to assess the relative contribution of each set of factors to the explained portion of the gender gap in reservation wages and evaluate the remaining unexplained (or "residual") part.

The Gelbach decomposition approach has been widely applied in the analysis of wage differentials, particularly in the context of the gender wage gap (Grove et al., 2011; Tverdostup & Paas, 2022). For instance, Cardoso et al. (2016) find that approximately one-fifth of the gender wage gap among workers with similar

labor market experience and firm tenure is attributable to differences in the quality of the firms they work for, while another one-fifth stems from differences in job quality. Since men and women of the same age and tenure, performing the same job within the same company, are expected to have similar abilities and skills, the remaining three-fifths of the gap can be attributed to discrimination.

In a similar vein, Detilleux and Deschacht (2024) use data from the German Socio-Economic Panel to explore how gender differences in preferences contribute to the gender gap in wage elasticity during job transitions between employers. Their results suggest that differences in risk preferences, patience, trust, conscientiousness, ambition, and self-esteem account for approximately 25% of this gap.

Extending the application of Gelbach's decomposition beyond gender wage disparities, Carneiro et al. (2012) apply this method to analyze the immigrant-native wage gaps.

We employ the Gelbach decomposition to assess the contribution of seven groups of control variables to the gender reservation wage gap identified in our analysis. Specifically, we categorize the explanatory variables into demographic characteristics, educational background, field of study, area of residence, parental background, labor market expectations and preferences in job attributes. Table 6 presents the results, showing the contribution of each group of variables. The contributions are estimated relying on the coefficients from the full specification.

Table 6. Decomposition of the gender gap in reservation wage

	Base	Groups
	specification	contribution
Coefficient on female indicator	-0.192***	
	(0.005)	
Demographic characteristics		0.004***
		(0.001)
Educational background		-0.008***
•		(0.002)
Field of study		-0.019***
•		(0.002)
Parental background		-0.000
-		(0.000)
Area of residence		-0.001***
		(0.001)
Labor market expectations		-0.032***
_		(0.006)
Preferences in job characteristics		-0.045***
•		(0.002)
Total		-0.102***
		(0.006)
Observations	22605	21488
Unexplained component		-0.090*** (47%)

Notes: The Table reports Gelbach decomposition of the gender reservation wage gap. The dependent variable is ln(Reservation Wage). Variables are group as follows: (i) Demographic characteristics – married, immigrant; (ii) Educational background - lyceum, high school grade, first level degree, second level degree, age at graduation (dummies), degree grade; (iii) Field of study dummies; (iv) Parental background - mother's and father's years of education and employment status; (v) Area of residence dummies; (vi) Labor market expectations - expected wage, employment probability; (vii) Preferences in job characteristics - self-employment, employee, part-time, work abroad, national mobility. Column (1) reports the coefficient on the female from a base specification which includes no additional covariates. Column (2) displays the coefficient from a full specification that incorporates all regressors. Column (3) presents the Gelbach decomposition, showing the contribution of each group of variables to the change in the female

coefficient. *Total* in the last row refers to the estimated difference in the gender gap in reservation wages between the baseline (column (1)) and the full specification (column (2)). The symbols ***, **, * indicate that the coefficients are statistically significant at the 1, 5, and 10 percent level respectively

Note that all set of factors, with the exception of parental background, significantly contribute to explaining the gender gap in reservation wages. Interestingly, demographic characteristics are the only group that exerts a positive effect on female reservation wages, albeit negligible. In contrast, all other factors tend to lower the female reservation wage, thus widening the gap. Notably, the contribution of all these factors is statistically significant at the 1 percent level. The factors most responsible for the gender gap are job-related preferences and labor market expectations. Specifically, preferences for job attributes account for an increase in the gender gap of approximately 4.5 percentage points, while labor market expectations contribute an additional 3.2 percentage points. Educational background and field of study also play a role, although minor, explaining an additional increase in the gap of around 1 and 2 p.p., respectively.

However, taken together, these factors account for 53% of the variation in the gender gap from the baseline to the full specification, leaving a substantial unexplained component of 47%. This residual gap may be attributed to differences in psychological attitudes between men and women, as widely documented in the literature. In particular, women's lower levels of overconfidence and reluctance to negotiate or ask may lead them to systematically set lower reservation wages compared to men.

6. Conclusion

In this paper, we provide evidence on gender differences in reservation wages among Italian graduates, using data collected by the Italian National Statistical Institute (ISTAT) on individuals who graduated from Italian universities in 2011.

The reservation wage, defined as the minimum compensation a worker is willing to accept for a job, plays a central role in shaping individual labor market behavior. Investigating gender differences in reservation wages at the early stage of labor market entry is crucial, as early disparities may persist over time and contribute to the persistence of gender gaps in labor market outcomes.

Our study contributes to the literature that examines the role of gender differences in psychological attributes and preferences in explaining gender gaps in labor market outcomes. Specifically, we interpret it as a baseline indicator of individuals' willingness to engage in negotiation, and thus as a proxy for their broader "propensity to ask".

We document substantial gender differences in reservation wages between female and male graduates with similar characteristics.

As a first step, we estimate a simple model that controls for a wide range of individuals, academic, and family background characteristics. Drawing on McCall's (1970) seminal job search model, we then incorporate measures of wage expectations and employment probabilities derived from the entire population of graduates. Next, we analyze whether job-related preferences — such as preferences for part-time work, self-employment, or geographic mobility — help explain differences in reservation wages between women and men.

Despite the inclusion of these sets of control variables, we find a statistically significant gender gap, with women setting lower reservation wages than men, by approximately 7-15 percentage points on average.

To assess the relative contribution of each group of variables to the observed gap, we finally apply the Gelbach's decomposition. Results from this analysis indicate that differences in job preferences and labor market expectations are the main drivers of the differences in reservation wages between males and females in our sample of Italian graduates. In contrast, demographic characteristics, education, and geographic location play only a marginal — albeit statistically significant — role in widening the gap.

Nevertheless, a substantial portion of the gap remains unexplained (almost 47%). The residual component of the gender gap in reservation wage is likely the result of gender differences in psychological attributes, such as a higher degree of overconfidence for men and a lower "propensity to ask" for women.

Appendix

Degree course dummies

Bachelor's Level

Biotechnology; Legal Services Sciences; Linguistic Mediation Sciences; Architecture and Building Engineering Sciences; Humanities; Social Work Sciences; Urban Planning and Territorial & Environmental Sciences; Civil and Environmental Engineering; Information Engineering; Industrial Engineering; Modern Languages and Cultures; Biological Sciences; Cultural Heritage Sciences; Communication Sciences; Political Science and International Relations; Earth Sciences; Economics and Business Management Sciences; Education and Training Sciences; Public Administration Sciences; Agricultural, Agri-food and Forestry Sciences and Technologies; Chemical Sciences and Technologies; Maritime and Air Navigation Sciences and Technologies; Visual Arts, Music, Performing Arts and Fashion Sciences and Technologies; Pharmaceutical Sciences and Technologies; Physical Sciences and Technologies; Computer Science and Technologies; Environmental and Nature Sciences and Technologies; Economics; Philosophy; Geography; Legal Sciences; Mathematics; Motor and Sports Sciences; Psychological Sciences and Techniques; Social Sciences for Cooperation, Development and Peace; Sociological Sciences; Statistics; Historical Sciences; Tourism Sciences; Zootechnical and Animal Production Sciences and Technologies; Conservation and Restoration Technologies for Cultural Heritage; Industrial Design

Master's Level

Physics and Universe Sciences; Computer Science and Digital Humanities; Mathematics; Other Scientific Graduate Programs; Chemical Sciences and Industrial Chemistry Technologies; Biology; Medical, Veterinary and Pharmaceutical Biotechnology; Industrial and Agricultural Biotechnology; Other Geo-Biological Graduate Programs; Nursing and Midwifery Sciences; Rehabilitation Health Professions Sciences; Other Medical Graduate Programs; Management Engineering; Computer Engineering; Mechanical Engineering; Electronic and Electrical Engineering; Telecommunications Engineering; Civil Engineering; Environmental and Land Engineering; Biomedical Engineering; Aerospace and Astronautical Engineering; Other Engineering Graduate Programs; Architecture and Building Engineering; Other Architecture Graduate Programs; Agricultural and Agri-food Sciences and Technologies; Rural and Forestry Resource Management Sciences; Agricultural Zootechnical Sciences and Technologies; Business and Management Sciences; Economics; Statistics for Experimental Research, Economic and Financial Actuarial Statistics, Demographic and Social Statistics, Methods for Evaluating Complex Systems; Other Economic-Statistical Graduate Programs; International Relations; Social Policy and Service Management; Publishing, Multimedia Communication and Journalism: Social and Institutional Communication Sciences, Advertising and Corporate Communication; Public Administration Sciences; Political Science; Sociology; Communication Theory, Information Society Techniques and Methods; Other Political-Social Graduate Programs; Law, Legal Norms and Information Theory; Italian Language and Culture, Modern and Ancient Philology and Literature; Performing Arts and Multimedia Production Sciences; Art History; History of Philosophy, Theoretical, Moral, Political and Aesthetic Philosophy, History and Philosophy of Science; Modern, Medieval, Contemporary and Ancient History; Other Literary Graduate Programs; Foreign Languages for International Communication; Modern Euro-American Languages and Literatures; Other Language Graduate Programs; Pedagogical Sciences; Adult Education and Lifelong Learning, Educational Services and Training Management; Psychology, Cognitive Sciences; Sports Science and Techniques, Preventive and Adaptive Physical Activity, Sports Services Management; Defense and Security Sciences; Natural Sciences

Single-Cycle Degrees

Mathematics; Physics; Information Sciences; Industrial Chemistry; Pharmacy; Chemistry and Pharmaceutical Technology; Geology; Natural Sciences; Biology; Medicine and Surgery; Mechanical Engineering; Electrical Engineering; Building Engineering; Computer Engineering; Management Engineering; Environmental and Land Engineering; Nuclear Engineering; Architecture; History and Conservation of Architectural and Environmental Heritage; Forestry and Environmental Sciences; Veterinary Medicine; Animal Production Sciences and Technologies; Economics and Business; Business Economics; Statistics and Business Informatics; Political Science; Sociology; Communication Sciences; Law; Literary Studies; Philosophy; Musicology; History and Conservation of Cultural Heritage; Comparative Studies; Foreign Languages and Literatures; Education Sciences; Psychology; Environmental

Sciences; Dentistry and Prosthetics; Social Work; Strategic Sciences; Translation and Interpretation; Motor Sciences

Specialized Degrees

Defense and Security Sciences

Specialized Healthcare Degrees

Nursing and Midwifery; Rehabilitation Health Professions; Technical Health Professions; Preventive Health Professions

References

- Adler, L. K. (2022). From the Job's Worth to the Person's Price: Pay-Setting, Gender Inequality, and the Changing Understanding of Fair Pay. Doctoral dissertation, Harvard University.
- Babcock, L. (2002). Do graduate students negotiate their job offers. . *Unpublished Report, Carnegie Mellon University, Cited in: Linda C. Babcock and Sara Laschever, Women Don't Ask, Princenton University Press.*
- Babcock, L., Gelfand, M., Small, D., & Stayn, H. (2013). Gender differences in the propensity to initiate negotiations. *Social Psychology and Economics*, 239–259.
- Babcock, L., & Laschever, S. (2003). *Women don't ask. Negotiation and the gender divide*. https://www.ebsco.com/terms-of-use
- Babcock, L., Laschever, S., Gelfand, M., & Small, D. (2003). Nice girls don't ask. *Harvard Business Review*, 81(10).
- Babcock, L., Recalde, M. P., Vesterlund, L., & Weingart, L. (2017). Gender differences in accepting and receiving requests for tasks with low promotability. *American Economic Review*, 107(3), 714–747.
- Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *The Quarterly Journal of Economics*, 116(1), 261–292.
- Barbulescu, R., & Bidwell, M. (2013). Do women choose different jobs from men? Mechanisms of application segregation in the market for managerial workers. *Organization Science*, 24(3), 737–756. https://doi.org/10.1287/orsc.1120.0757
- Bertrand, M. (2011). New perspectives on gender. In *Handbook of Labor Economics* (Vol. 4, Issue PART B). https://doi.org/10.1016/S0169-7218(11)02415-4
- Bertrand, M. (2018). Coase Lecture The Glass Ceiling. *Economica*, 85(338), 205–231. https://doi.org/10.1111/ecca.12264
- Bertrand, M., Goldin, C., & Katz, L. F. (2010). Dynamics of the gender gap for young professionals in the financial and corporate sectors. *American Economic Journal: Applied Economics*, 2(3), 228–255.
- Beyer, S., & Bowden, E. M. (1997). Gender differences in seff-perceptions: Convergent evidence from three measures of accuracy and bias. *Personality and Social Psychology Bulletin*, 23(2), 157–172.
- Blau, F. D., & Kahn, L. M. (2017). The Gender Wage Gap: Extent, Trends, and Explanations. *Journal of Economic Literature*, *3*(55), 789–865. http://www.nber.org/papers/w21913
- Blinder, A. S. (1973). Wage discrimination: reduced form and structural estimates. , 436-455. *Journal of Human Resources*, 436–455.
- Bonin, H., Dohmen, T., Falk, A., Huffman, D., & Sunde, U. (2007). Cross-sectional earnings risk and occupational sorting: The role of risk attitudes. *Labour Economics*, *14*(6), 926–937. https://doi.org/10.1016/j.labeco.2007.06.007
- Bowles, H. R. (2013). Psychological perspectives on gender in negotiation. *The Sage Handbook of Gender and Psychology*, 465–483.
- Bowles, H. R., Babcock, L., & Lai, L. (2007). Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. *Organizational Behavior and Human Decision Processes*, 103(1), 84–103. https://doi.org/10.1016/j.obhdp.2006.09.001
- Bowles, H. R., Babcock, L., & McGinn, K. L. (2005). Constraints and Triggers: Situational Mechanics of Gender in Negotiation. *Journal of Personality and Social Psychology*, 89(6). http://ssrn.com/abstract=832626
- Briel, S., Osikominu, A., Pfeifer, G., Reutter, M., & Satlukal, S. (2022). Gender differences in wage expectations: the role of biased beliefs. *Empirical Economics*, 62(1), 187–212. https://doi.org/10.1007/s00181-021-02044-0
- Brown, S., Roberts, J., & Taylor, K. (2011). The gender reservation wage gap: Evidence from British Panel data. *Economics Letters*, 113(1), 88–91. https://doi.org/10.1016/j.econlet.2011.05.025
- Buser, T., Niederle, M., & Oosterbeek, H. (2024). Can competitiveness predict education and labor market outcomes? Evidence from incentivized choice and survey measures. *Review of Economics and Statistics*, 1–45.
- Caliendo, M., Fossen, F. M., & Kritikos, A. S. (2009). Risk attitudes of nascent entrepreneurs—new evidence from an experimentally validated survey. *Small Business Economics*, *32*, 153–167.
- Caliendo, M., Lee, W. S., & Mahlstedt, R. (2017). The gender wage gap and the role of reservation wages: New evidence for unemployed workers. *Journal of Economic Behavior & Organization*, *136*, 161–173. https://doi.org/10.1016/j.jebo.2017.02.011

- Cardoso, A. R., Guimaraes, P., & Portugal, P. (2016). What drives the gender wage gap? A look at the role of firm and job-title heterogeneity. *Oxford Economic Papers*, 68(2), 506–524.
- Carneiro, A., Fortuna, N., & Varejão, J. (2012). Immigrants at new destinations: how they fare and why. *Journal of Population Economics*, 25, 1165–1185.
- Correll, S. J. (2001). Gender and the career choice process: The role of biased self-assessments. *American Journal of Sociology*, 106(6), 1691–1730.
- Cortés, P., Pan, J., Pilossoph, L., Reuben, E., Zafar, B., French, J., Paola, M., Araya, U., Winseck, K., & Lim, Z. H. (2023). Gender Differences in Job Search and the Earnings Gap: Evidence from the Field and Lab. *The Quarterly Journal of Economics*, 138(4), 2069–2126.
- Croson, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature*, 47(2), 448–474. https://doi.org/10.1257/jel.47.2.448
- Cullen, Z. B., Li, S., & Perez-Truglia, R. (2022). What's my employee worth? The effects of salary benchmarking (No. w30570). *National Bureau of Economic Research*.
- Detilleux, C., & Deschacht, N. (2024). The gender gap in the wage sensitivity of job transitions: a decomposition analysis. . *Journal of Labour Market Research*, 58(26).
- DiNardo, J., Fortin, N. M., & Lemieux, T. (1996). Labor Market Institutions and the Distribution of Wages, 1973-1992: A Semiparametric Approach. *Econometrica*, 64(5), 1001–1044.
- Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J., & Wagner, G. G. (2011). Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences. *Journal of the European Economic Association*, 9(3), 522–550.
- Eckel, C. C., & Grossman, P. J. (2002). Sex differences and statistical stereotyping in attitudes toward financial risk. *Evolution and Human Behavior*, 23(4), 281–295.
- Eckel, C. C., & Grossman, P. J. (2008). Men, women and risk aversion: Experimental evidencee. *Handbook of Experimental Economics Results*, *1*, 1061–1073. http://ssrn.com/abstract=1883693Electroniccopyavailableat:https://ssrn.com/abstract=1883693
- England, P., & Li, S. (2006). Desegregation stalled: The changing gender composition of college majors, 1971-2002. *Gender & Society*, 20(5), 657–677.
- Falk, A., Becker, A., Dohmen, T., Enke, B., Huffman, D., & Sunde, U. (2018). Global evidence on economic preferences. *The Quarterly Journal of Economics*, 133(4), 1645–1692.
- Falk, A., & Hermle, J. (2018). Relationship of gender differences in preferences to economic development and gender equality. *Science*, *362*(6412).
- Fernandes, A., Huber, M., & Vaccaro, G. (2021). Gender differences in wage expectations. *PLoS ONE*, *16*(6 June). https://doi.org/10.1371/journal.pone.0250892
- Filippin, A., & Ichino, A. (2005). Gender wage gap in expectations and realizations. *Labour Economics*, 12(1), 125–145.
- Fluchtmann, J., Glenny, A. M., Harmon, N., & Maibom, J. (2023). The Gender Application Gap: Do men and women apply for the same jobs? *Fluchtmann, J., Glenny, A. M., Harmon, N. A., & Maibom, J.* (2024). The Gender Application Gap: Do MeAmerican Economic Journal: Economic Policy, 16(2), 182–219.
- Gelbach, J. B. (2016). When Do Covariates Matter? And Which Ones, and How Much? *Journal of Labor Economics*, 34(2), 509–543. https://doi.org/10.2307/26553211
- Gerhart, B., & Rynes, S. (1991). Determinants and consequences of salary negotiations by male and female MBA graduates. *Journal of Applied Psychology*, 76(2), 256–262.
- Gibbons, R., & Waldman, M. (1999). A theory of wage and promotion dynamics inside firms. *The Quarterly Journal of Economics*, 114(4), 1321–1358.
- Gneezy, U., Niederle, M., & Rustichini, A. (2003). Performance in competitive environments: Gender differences. *The Quarterly Journal of Economics*, 118(3), 1049–1074.
- Gneezy, U., & Potters, J. (1997). An experiment on risk taking and evaluation periods. *The Quarterly Journal of Economics*, 112(2), 631–645.
- Gneezy, U., & Rustichini, A. (2004). Gender and competition at a young age. *American Economic Review*, 94(2), 377–381.
- Grove, W. A., Hussey, A., & Jetter, M. (2011). The gender pay gap beyond human capital: Heterogeneity in noncognitive skills and in labor market tastes. *Journal of Human Resources*, 46(4), 827–874.
- Hansen, B., & McNichols, D. (2020). Information and the persistence of the gender wage gap: Early evidence from California's salary history ban. *Working Papers 27054, National Bureau of Economic Research.*

- Khan, B. M., & Majid, M. F. (2020). A note on the gender reservation wage gap in developing countries. *Scottish Journal of Political Economy*, 67(5), 462–468.
- Kiessling, L., Pinger, P., Seegers, P., & Bergerhoff, J. (2024). Gender differences in wage expectations and negotiation. *Labour Economics*, 87. https://doi.org/10.1016/j.labeco.2024.102505
- Lancaster, T., & Chesher, A. (1983). An econometric analysis of reservation wages. *Econometrica: Journal of the Econometric Society*, 1661–1676.
- Lochner, B., & Merkl, C. (2023). *Gender-Specific Application Behavior, Matching, and the Residual Gender Earnings Gap.* https://ssrn.com/abstract=4682470
- Lundeberg, M. A., Fox, P. W., & Punccohar, J. (1994). Highly confident but wrong: Gender differences and similarities in confidence judgments. *Journal of Educational Psychology*, 86(1), 114–121.
- Major, B., & Konar, E. (1984). An investigation of sex differences in pay expectations and their possible causes. *Academy of Management Journal*, 27(4), 777–792.
- McCall, J. J. (1970). Economics of Information and Job Search. *Quarterly Journal of Economics*, 84, 113–126.
- McGee, A., & McGee, P. (2025). Gender differences in reservation wages in search experiments. *Labour Economics*, 102698. https://doi.org/10.1016/j.labeco.2025.102698
- Milkovich, G. T., & Newman, J. M. (1987). Compensation. Plano, TX. . *Business Publications. Participants. Personnel Psychology*, 40, 85–96.
- Mortensen, D. T. (1986). Job search and labor market analysis. *Handbook of Labor Economics*, 849–919.
- Niederle, M., & Vesterlund, L. (2007). Do women shy away from competition? Do men compete too much? *The Quarterly Journal of Economics*, 122(3), 1067–1101.
- Oaxaca, R. (1973). Male-female wage differentials in urban labor markets. *International Economic Review*, 693–709.
- Olivetti, C., & Petrongolo, B. (2016). The Evolution of Gender Gaps in Industrialized Countries. *Annual Review of Economics*, 8, 405–434. http://www.nber.org/papers/w21887
- Oreopoulos, P., Von Wachter, T., & Heisz, A. (2012). The short-and long-term career effects of graduating in a recession. *American Economic Journal: Applied Economics*, 4(1), 1–29.
- Oyer, P. (2006). Initial labor market conditions and long-term outcomes for economists. *Journal of Economic Perspectives*, 20(3), 143–160.
- Reuben, E., Sapienza, P., & Zingales, L. (2015). Taste for competition and the gender gap among young business professionals. *Columbia Business School Research Paper*, 15–52.
- Reuben, E., Wiswall, M., & Zafar, B. (2017). Preferences and biases in educational choices and labour market expectations: Shrinking the black box of gender. *The Economic Journal*, 127(604), 2153–2186.
- Rogerson, R., Shimer, R., & Wright, R. (2005). Search-theoretic models of the labor market: A survey. *Journal of Economic Literature*, *43*(4), 959–988.
- Sliwka, D., & Grund, C. (2006). Performance pay and risk aversion.
- Small, D. A., Gelfand, M., Babcock, L., & Gettman, H. (2007). Who goes to the bargaining table? The influence of gender and framing on the initiation of negotiation. *Journal of Personality and Social Psychology*, *93*(4), 600–613.
- Smith, H. L., & Powell, B. (1990). Great expectations: Variations in income expectations among college seniors. *Sociology of Education*, 194–207.
- Topa, G., Sahin, A., Mueller, A., & Faberman, J. (2017). Job Search and the Gender Wage Gap. *Meeting Papers*. *Society for Economic Dynamics.*, 133.
- Tverdostup, M., & Paas, T. (2022). Gender disparities in wage returns to human capital components: how different are European labour markets? *Baltic Journal of Economics*, 22(1), 28–48.
- Wiswall, M., & Zafar, B. (2018). Preference for the workplace, investment in human capital, and gender. *The Quarterly Journal of Economics*, 133(1), 457–507.
- Wood, R. G., Corcoran, M. E., & Courant, P. N. (1993). Pay differences among the highly paid: The male-female earnings gap in lawyers' salaries. *Journal of Labor Economics*, 11(3), 417–441.