The Gender Wage Gap and the Role of Reservation Wages: New Evidence for Unemployed Workers

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Abstract

This paper examines the importance of differences in reservation wages for the gender wage gap. Based on two waves of rich survey data for a sample of newly unemployed individuals in Germany, we perform a decomposition analysis including measures for reservation wages, detailed information on education, socio-demographics, labor market history, as well as personality traits. In order to address the potential endogeneity of reservation wages we exploit a generated instrumental variable strategy that relies on heteroscedasticity of the error terms. Our findings indicate that the gender wage gap becomes small and statistically insignificant once we control for reservation wages. Moreover, we perform a subgroup analysis that provides valuable insights about the importance of potentially unobserved characteristics that affect reservation wages and realized wages simultaneously. Reasons for differences in reservation wages could arise from productivity differences, the fact that women anticipate discrimination and different unobserved traits or preferences.

Keywords: Wages, Gender Gap, Reservation Wages, Decomposition, Discrimination
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1 Introduction

The decomposition of gender and racial wage gaps can arguably be considered to be the Holy Grail in labor economics. In the case of the gender wage gap, despite numerous attempts by economists in the past, there typically still remains a sizeable unexplained gap (e.g. Altonji and Blank, 1999; Blau and Kahn, 2006). Early studies already identified the institutional wage structure (e.g. Blau and Kahn, 2003), gender differences in experience and tenure (e.g. Blau and Kahn, 1997), occupations (e.g. Groshen, 1991; Macpherson and Hirsch, 1995), qualifications (e.g. Blau and Kahn, 1997), college major (e.g Brown and Corcoran, 1997; Machin and Puhani, 2003), promotion rates (e.g. Booth *et al.*, 2003) and the penalty on women for having children (e.g. Waldfogel, 1997) as driving forces of the gender wage gap. In more recent years, new classes of explanations why women may choose alternative career paths have been proposed (see the discussion in Bertrand, 2010). These include gender differences in psychological attributes and risk preferences (e.g. Croson and Gneezy, 2009), attitudes towards competition (e.g. Lavy, 2012; Manning and Saidi, 2010) and negotiation (e.g. Babcock and Lascheyer, 2003), as well as differences in personality traits (e.g. Mueller and Plug, 2006). However, to date, most of these recent findings have been based on laboratory experiments and real world evidence is generally lacking. Therefore, more empirical evidence will be important in determining whether these explanations will have a lasting impact in the study of gender wage gaps (see Bertrand, 2010).

Closely related to the gender gap in realized wages, another strand of the literature provides explanations for gender differences in reservation wages. The reservation wage can be viewed as a measure of a person's eagerness or reluctance to accept employment and plays a key role in traditional job search theory (see Mortensen, 1986; Mortensen and Neumann, 1988) by determining the unemployment duration and the speed at which job-seekers will be reintegrated into the labor market (e.g. Rogerson *et al.*, 2005). Gender differences in reservation wages might be related to different preferences for non-working time (e.g. Bowlus, 1997; Bowlus and Grogan, 2009), search frictions (e.g. Bowlus, 1997; Sulis, 2011; Kunze and Troske, 2012) and differences in productivity (e.g. Flabbi, 2010). Moreover, the wage gap can also emerge because heterogeneous firms can have different pay policies and offer different wages to men and women (e.g. Becker, 1971; Blackaby *et al.*, 2005; Flabbi, 2010). Women could potentially anticipate such discriminatory behavior and hence adjust their reservation wages downwards to increase their future employment prospects. It is therefore possible that gender differences with respect to reservation wages might be simply a realization of anticipated discrimination against women

in the labor market. Finally, differences in reservation wages could also express different preferences or personality traits, like the tendency for males to be overconfident (see Barber and Odean, 2001), the fact that women generally tend to be more risk averse (Eckel and Grossmann, 2008; Pannenberg, 2010) or women's preferences for occupations with higher social prestige (e.g. Kleinjans and Fullerton, 2013) and workplace flexibility (e.g. Goldin, 2014).

In this paper we combine these two strands of the literature in order to search for new explanations for the gender wage gap. We do so by examining the importance of gender differences in reservation wages in explaining the gender gap in realized wages for a sample of newly unemployed job applicants in Germany. The key research question we focus on is if any observed wage gap between men and women is simply an empirical realization of an initial gender gap in reservation wages. In particular, the novel contribution of the paper is including the reservation wage into the decomposition of the gender gap in realized wages. By having data on both reservation wages and realized wages on the same individual in a panel data set, we can determine the extent to which gender differences in aspirations and expectations regarding wages can be a self-fulfilling prophecy and lead to gender differences in actual wages. Although there has been previous work that attempts to decompose gender wage differentials that accounts for gender differences in reservation wages (e.g. Bowlus, 1997; Bowlus and Grogan, 2009), most studies do not have actual information on reservation wages and must infer them from observed outcomes in the data, such as the lowest observed wage. Previous empirical work involving reservation wages has generally been concerned with macro-labor issues such as unemployment insurance and unemployment rates (e.g. Feldstein and Poterba, 1984; Shimer and Werning, 2007). Others have been concerned with estimating the determinants of reservation wages, e.g., Brown *et al.* (2010) use the BHPS data to examine the role of health in determining reservation wages and similarly, Prasad (2004) and Humpert and Pfeifer (2013) use data from the German Socio-Economic Panel (SOEP) to analyze the determinants of reservation wages of German workers.

Having access to panel data on reservation wages and realized wages for the same individual comes at the price that we can only draw conclusions for a specific sample of job-seekers entering unemployment shortly before they were interviewed for the first time but found a job within one year. Although this might raise concerns about the external validity of our results, it should be noted that this allows us to focus on a very homogeneous sample of unemployed job-seekers, which is probably the most relevant group when utilizing the concept of reservation wages. Nevertheless, it is possible that there are unobserved differences between men and women that influence reservation wages and realized wages simultaneously. For example, if women value job

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flexibility more than men, they may report a lower reservation wage and subsequently choose to accept a job with lower wages that allows for flexible hours. We conduct two types of sensitivity analysis – one based on an instrumental variable strategy, the other based on a subgroup analysis – indicating that potential endogeneity of reservation wages only has a minor impact on our decomposition results.

Previewing our main findings, we find as is typical in the literature that men earn more than women. Although, the inclusion of standard explanatory variables reduces the gender gap in realized wages somewhat, the gap still remains statistically significant. In this context, labor market histories appear to be an important driving factor of the gender wage gap, while socio-demographic characteristics, personality traits, search behavior and expectations have only a small impact. However, the striking result implies that the inclusion of reservation wages halves the gender gap, making the remaining difference economically small and statistically insignificant. As the finding implies that reservation wages play an important role for the gender gap in realized wages, we also take a closer look at the determinants of reservation wages in an attempt to better understand how this initial gender gap in reservation wages arises. The rest of this paper is organized as follows. Section 2 describes the data in more detail and shows observed differences between men and women. Section 3 presents the decomposition of the realized gender wage gap and discusses the role of reservations wages, while Section 4 investigates potential explanations for gender differences in reservation wages. Finally, Section 5 concludes.

2 Data, Descriptive Statistics and the Reservation Wage

2.1 The IZA Evaluation Dataset S(urvey)

This study uses the IZA Evaluation Dataset S(urvey) which contains survey information on individuals who entered unemployment between June 2007 and May 2008 in Germany (see Caliendo et. al, 2011, for details). The initial dataset contains a 9% random sample from the monthly unemployment inflows identified in the administrative records who are selected for an interview. From this gross sample of individuals aged between 16 and 54 years, representative samples of about 1,450 individuals are interviewed each month so that twelve monthly cohorts are gathered after one year. The first wave of interviews takes place shortly after the entry into unemployment. Besides the extensive set of individual-level characteristics and labor market outcomes, the individuals are asked a variety of non-standard questions regarding search behavior, social networks, psychological factors, cognitive and non-cognitive skills, subjective assessments on future outcomes, and attitudes. Altogether, a total of 17,396 interviews were obtained in this initial

round of the survey. One year later, 8,915 individuals were interviewed again for a second wave (see Arni *et al.*, 2014, for details on the representativeness of the dataset and panel attrition).

For the purposes of this paper we restrict the sample to individuals who are still unemployed at the moment of the first interview, taking place between 7 and 14 weeks after the entry into unemployment, and are actively searching for full-time employment. This means that we exclude all individuals who do not actively search for a new job (since we only observe reservation wages for those who do) or contemplate part-time employment (which are nearly exclusively women). We expect that women who search for full-time employment are more similar to men (who also search for full-time employment) with respect to unobserved characteristics and potential selection issues are less likely to bias our results compared to other gender wage gap studies. As we observe a few implausible values for some job seekers, we further exclude those individuals whose reported hourly reservation wages and benefit levels are in the lowest or highest percentile of the distribution in order to get rid of these outliers, as well as those with missing values for reservation wages or any of the control variables. Hence, our main estimation sample is based on 1,974 individuals (1,235 men and 739 women) who are employed in wave 2.

2.2 Observed Gender Differences and the Reservation Wage

Table 1 summarizes gender differences in realized wages, reservation wages and individual characteristics. As is typical in the literature, we observe that women earn € 1.35 per hour less than men one year after entering unemployment. Since previous studies already identified several driving factors of the gender wage gap, we divide our set of control variables into five groups that are expected to represent different classes of explanations for the gender wage gap: 1) *baseline variables* mainly account for differences in socio-demographic characteristics, 2) *personality traits* reflect psychological reasons for why women might choose different career paths, 3) *education* and 4) *labor market histories* represent traditional explanations for differences with respect to human capital accumulation, while 5) *expectations and search characteristics* are related to actual choices that women might take during the current unemployment spell. Selected descriptive statistics for the four groups of control variables are presented in Panel A of Table 1. All variables are measured at the first interview shortly after entry into unemployment.

First of all, there are no gender differences with respect to age, migration background or marital status. However, we observe a lower share of women with children than men. For example, 76.7% of the women are without children whereas this is the case for only 69.6% of the men. Similarly, only 6.6% of the women have two or more children, as compared to 12.5% of the men.

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These differences are likely to be due to our focus on individuals who are searching for full-time employment only. With respect to the 'Big Five' personality traits (see Digman, 1990, for an overview) women report significantly higher levels of openness, conscientiousness, extraversion and neuroticism, while they also have a lower internal locus of control (see e.g. Caliendo *et al.*, 2015). Moreover, the educational variables include information on the school leaving degree and the type of vocational training. In our sample, women generally have higher school leaving degrees than men. For example, 37.6% of women hold a (specialized) upper secondary school degree, whereas only 26.5% of men do.

The fourth group of control variables summarizes the individual labor market history using several measures, such as the employment status before entering unemployment and the time spent in employment in the past. Generally, women are less likely to enter unemployment from regular jobs (69.8% of women compared to 73.7% of men) and have less work experience relative to their age.[1] Furthermore, we observe significantly higher unemployment benefits for men than for women, but no significant gender differences in unemployment benefit receipt. Finally, the last group of covariates contains some non-standard information on job search behavior and expectations. There are no reported differences with respect to job search intensity and the search channels used but men seem to be more optimistic about their future employment prospects and are less likely to expect to participate in an ALMP program.

[INSERT FIGURE 1 AND TABLE 1 ABOUT HERE]

At the same time, we also observe a gender gap in reservation wages of about € 1.05 per hour. The reservation wage is defined as the lowest wage rate at which a job-seeker would accept a job offer. We measure an individual's reservation wage in several steps. First, individuals are asked for their expected monthly income in a prospective job and how many hours they expect to work at such a job per week. The hourly reservation wage is then defined as the ratio of the expected income divided by 4.33 and the expected weekly working hours. Second, individuals are also asked if they are willing to work for less than the expected wage. If so, they are asked for the minimum amount they would be willing to work for and the expected weekly hours of work. For all individuals who are willing to work for less than the expected wage, we replace the reservation wage by this minimum wage if it is lower than the expected wage defined before.[2] Panel B of Table 1 presents means of the generation process of the reservation wages and realized

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[1]This is measured by the months in employment standardized by an individual's age minus 18.

[2]This is similarly defined as the ratio of the minimum monthly income and the expected working hours divided by 4.33.

wages separated by gender. Women expect a significant lower monthly income but at the same time also want to work fewer hours per week for such a job. Figure 1a presents the distribution of reservation wages in wave 1 by gender, and Figure 1b graphs the distribution of realized wages in wave 2 for the same sample. It is interesting to note that the graphs are somewhat similar in that in both cases, the female distribution is to the left of the male distribution and, according to the Kolmogorov-Smirnov test, the differences of the two distributions are statistically significant. Figure 1c presents the relative distribution of reservation wages and previous wages and 1d the relative distribution of realized wages and reservation wages. As can be seen from the corresponding Kolmogorov-Smirnov tests, there are no distributional differences with respect to these two ratios. The graphs suggest that the relative development from pre-unemployment earnings through reservation wages to actual realized wages in a new job is similar for men and women. However, a potential concern for our analysis might be that reservation wages are only observed at the first interview while actual wages are realized about one year later. Therefore, we need to assume that reservation wages do not change differently for men and women over the course of time. In order to test this assumption, we exploit the fact that the dataset provides information on the development of reservation wages over time for those individuals who are unemployed in more than one of the survey waves. The findings suggest that reservation wages are relatively constant during the first year of the unemployment spell and that there are no significant differences between men and women with respect to the adjustment of reservation wages over time (see Appendix A for details).

3 The Gender Gap in Realized Wages

3.1 Blinder-Oaxaca Decomposition

The most common approach employed in the literature on gender gaps is the decomposition proposed by Blinder (1973) and Oaxaca (1973). In the standard Blinder-Oaxaca (BO) decomposition, separate regressions are estimated for group A ($Y_i = \beta_A X_i + \epsilon_i$) and for group B ($Y_i = \beta_B X_i + \epsilon_i$), where X are individual level characteristics that help explain differences in Y. The average gap in outcomes ($\bar{Y}_A - \bar{Y}_B$) can be expressed as the sum of two components: $\beta_A(\bar{X}_A - \bar{X}_B) + (\beta_A - \beta_B)\bar{X}_B$. The first part is attributed to differences in average characteristics between the two groups (i.e., the explained component). The second part is due to differences in average returns to the individual characteristics, which may reflect discrimination (i.e., the unexplained gap).

Much has been written about how best to express the appropriate counterfactual and whether one should use group A or group B as the reference group when performing the decomposition in order to examine the extent to which characteristics matter. As our benchmark approach, we adopt a straightforward way of estimating the gender gap in employment and wages. We refer to this as the pooled regression decomposition approach as this approach simply uses the coefficient on a group indicator from an OLS regression in order to obtain a single measure of the unexplained gap in wages between men and women. This pooled coefficient can essentially be viewed as a weighted average of the two different ways of doing a BO decomposition (see Elder *et al.*, 2009). The unexplained effect in a decomposition has a similar interpretation to a treatment effect in the program evaluation literature, with one key difference being that the explained effect is of interest in a decomposition but considered to be selection bias that needs to be controlled for in the program evaluation literature (see e.g. Fortin *et al.*, 2011).

3.2 Decomposition of the Gender Gap and the Role of Reservation Wages

To conduct our empirical analysis in a systematic way, we start decomposing the raw gender wage gap, of about 11.9%, using the BO approach discussed before. Therefore, we separately include the different groups of control variables defined in Section 2.2.[3] The decomposition results of the realized wage gap are presented in Panel A of Table 2. First, we include the baseline variables – socio-demographic characteristics and local unemployment rates – in column (1) into the decomposition analysis. It can be seen that this explains only about 16.0% of the raw gender gap. In a second step, we account for differences with respect to personality traits as these variables are identified as potential explanations for wage differentials in the previous literature (see e.g. Mueller and Plug, 2006). However, these variables can only explain 10.1% of the wage gap. Third, since women are on average better educated than men, and a higher level of education is associated with higher earnings, conditioning the decomposition on the educational level slightly increases the unexplained part of the wage gap. Earlier studies have shown that women's increasing level of education lead to a substantial decline of the gender wage gap (see Weichselbaumer and Winter-Ebmer, 2005, for an overview). In a fourth step, we include the labor market histories which account for more than half of the gender wage gap. This is in line with previous findings that point out the importance of work experience when decomposing the gender wage gap (see e.g. Light and Ureta, 1995). As a fifth group, we take into account job search characteristics and expectations which can explain 11.8% of the wage

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[3]The full set of control variables can be found in the notes of Table 2.

differential. Finally, when all groups of control variables are jointly included in column (6), we can explain about 58% of the unconditional wage gap and it drops from 11.9% to 5.0% but remains statistically significant. Comparing columns (4) and (6) shows that once we control for labor market histories, the additional effect of the other control variables seems to be relatively small. The strong impact of labor market histories is not very surprising given that past realizations of labor market outcomes also depend on unobserved factors that are important for the current wage (see Caliendo *et al.*, 2014).

[INSERT TABLE 2 ABOUT HERE]

When interpreting our findings it should be taken into account that – due to the empirical setting and the data gathering process – we focus on a specific sample of individuals freshly entering unemployment and finding a job within one year. In comparison to previous studies, we can see that the unexplained gap in realized wages in our sample is only about half of the full population gap (e.g. Bauer and Sinning, 2010) and one third of the gap for graduates (e.g. Machin and Puhani, 2003). Assuming that our sample of unemployed job-seekers represent individuals who earn relatively low wages, a potential explanation for these differences includes an increasing gender gap within the wage distribution (see Arulampalam *et al.*, 2007). Moreover, also the fact that we observe both men and women at the beginning of an employment spell,[4] as well as a trend of increasing gender equality over the last years could explain the smaller wage gap in our sample (see e.g. Jarrel and Stanley, 2004).[5]

In order to analyze the importance of reservation wages for the decomposition of the gender gap in realized wages, we finally include two additional specifications. In column (7) we include the reservation wage as the only control variable beside the gender dummy, while in column (8) we add the reservation wage as an additional control to our full specification. The striking result is that with the reservation wage included in the full specification we can now explain 79.8% of the raw gap and more importantly, no significant gender gap remains. In light of the fact that numerous previous wage decomposition studies have not accounted for the gender gap in reservation wages, one possible interpretation is that the reservation wage is a key omitted variable

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[4]Previous studies, e.g. Machin and Puhani (2003), Bauer and Sinning (2010), typically compare men and women at different points during an employment spell, while others, e.g. Arulampalam *et al.* (2007), include control variables for tenure. Assuming that gender differences in promotion, tenure decisions and job changes are determinants of the gender wage gap, this might explain that those studies find larger gender gaps in observed wages.

[5]Whenever possible, we re-estimate our findings for less selective samples, e.g. including also those who contemplate part-time employment or, when decomposing the gender gap in reservation wages, including job-seekers who are not employed, respectively not observed, in wave 2. All estimates are very similar to our baseline findings presented in the paper. Results are available upon request by the authors.

that has been missing in previous decomposition exercises. The importance of reservation wages is further emphasized by the fact that controlling only for reservation wages, without including any other covariates, still accounts for 71.4% of the gender wage gap.

3.3 Addressing the Potential Endogeneity of Reservation Wages

So far, we have seen that the gender gap in realized wages becomes statistically insignificant once we control for reservation wages. However, a potential concern when including reservation wages into the decomposition of realized wages could be that reservation wages are correlated with unobserved characteristics that simultaneously also affect realized wages. For example, it is possible that individuals with higher abilities also set higher reservation wages as well as earn correspondingly higher wages. Although a conventional solution to such endogeneity problems is to use instrumental variable (IV) methods, in practice, it is difficult to find a variable that is correlated with reservation wages but has no influence on the realized wage.[6]

Therefore, as an attempt to examine if the potential endogeneity of reservation wages is an issue in our context, we adopt a recently developed instrumental variable approach that relies on the presence of heteroskedastic error terms for identification proposed by Lewbel (2012). It is assumed that the estimated model is given as:

$$\log W = \delta \log R + \beta_1 X + \epsilon_1 \qquad\qquad \epsilon_1 = \alpha_1 U + V_1 \qquad\qquad (1)$$

$$\log R = \beta_2 X + \epsilon_2 \qquad\qquad \epsilon_2 = \alpha_2 U + V_2. \qquad\qquad (2)$$

Here, W characterizes the realized wage, R the reservation wage and X our set of control variables, while U denotes the unobserved characteristics that affect both, an individuals realized wage and the reservation wage. V_1 and V_2 are idiosyncratic error terms. The Lewbel IV approach involves taking a vector Z of observed exogenous variables and utilizing the estimated residuals to generate instruments for reservation wages R. The presence of an external instrument as in the classical IV approach is not required. Given that $E[X\epsilon_1] = 0$ and $E[X\epsilon_2] = 0$ the identification approach requires

$$cov(Z, \epsilon_2^2) \neq 0, \qquad\qquad (3)$$

$$cov(Z, \epsilon_1\epsilon_2) = 0 \qquad\qquad (4)$$

and the model can be estimated by Two Stage Least Squares (2SLS). In the first-stage, the endogenous variable is regressed on Z and the estimated residuals are used to construct the

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[6]Some other studies have previously used benefit amounts as an instrument for reservation wages (e.g. Jones, 1988) but this is not an option in our context because unemployment benefits in Germany are directly related to previous net income.

instruments $[Z - E(Z)]\epsilon_2$ which represents the product of the heteroskedastic residuals with the mean-centered exogenous variables. According to equation 3, identification requires that the error terms in the first-stage regression are heteroskedastic. Lewbel (2012) suggests using the estimate of the sample covariance between Z and squared residuals from the first stage regression linear regression on X to test for this requirement, using the Breusch-Pagan test for heteroscedasticity (see Breusch and Pagan, 1979). The results of the test (see Panel A of Table 3) show that the null of homoskedastic errors is clearly rejected in each case with a $p-$value equal to 0.01 or less, while the first stage F-test results also suggest that the generated instruments employed are not weak instruments.

Moreover, as implied in equation 4, another crucial assumption of this estimation procedure is that the covariates Z which are used to construct the instrument are exogenous with respect to reservation wages and realized wages. There are no formal approaches for the optimal selection of Z and the resulting estimates are potentially sensitive to the choice of included covariates Z. As such, the coefficient on reservation wages and the estimated gender gap in wages could be sensitive to the composition of Z. We address this issue by analyzing the sensitivity of this generated IV approach with respect to the choice of Z in order to provide evidence for its plausibility.

[INSERT TABLE 3 ABOUT HERE]

We start the analysis in Table 3 by including only the baseline variables. The idea is to exploit only a small set of covariates which can be reasonably assumed to be exogenous with respect to reservation wages and realized wages. Next, we consecutively include the other sets of control variables where the ordering reflects our expectations about the importance of potential endogeneity issues. We start by adding the personality traits (column 2), which are usually assumed to be relatively stable over the adult life (see e.g. Costa Jr. and McCrae, 1994; Cobb-Clark and Schurer, 2013). This is followed by adding the education variables (column 3) and the labor market history variables (column 4). Finally, we complete the analysis by adding the job search characteristics and expectations variables (column 5). As search theory suggests that search intensity and reservation wages are simultaneously determined, the inclusion of this latter set of variables in X or Z is potentially problematic. Therefore, we include this group only in the very last specification. The results show that the variation with respect to the estimated gender gap is very small across the different specifications. Although, we cannot directly test for the exogeneity of variables in X or Z, we argue that the robustness of the estimated coefficients

suggests that our key finding is not biased by the potential endogeneity of the covariates. It should be also noted that the results of the Sargan-Hansen test (see Sargan, 1958; Hansen, 1982) show that the overidentifying restrictions are not rejected when we use richer specifications for our set of covariates (columns 3-5), suggesting that the excluded instruments are valid.

Overall, the IV results indicate that the size of the gender wage gap is largely independent of the choice of the covariates that we use in order to generate the instrumental variables. This can be interpreted as evidence that the potential endogeneity of the covariates has only a negligible impact on the empirical results in our context. Moreover, when comparing the 2SLS (Panel A) and OLS (Panel B) estimates, it can be seen that results are very similar. With the reservation wage included in the wage decomposition, there is no gender gap in observed wages. This indicates that potential endogeneity of reservation wages has in general only a small impact on our decomposition results presented in Table 2.

4 Why Do Women Have Lower Reservation Wages?

4.1 The Gender Gap in Reservation Wages

Having established the importance of reservation wages for the gender wage gap, we now examine the gender gap in reservation wages more closely in Table 4. The raw gender gap in reservation wages is about 12.5%, implying that women expect significantly lower wages than men. Again, we sequentially add the five groups of control variables in columns (1)–(5). Although, the gender gap in reservation wages seems to be slightly larger for all specifications, the overall pattern looks very similar to the one in realized wages. The baseline variables, as well as the personality traits have only a small impact in reducing the gender gap in reservation wages, while, since women in our sample are generally better educated but have lower reservation wages the gap increases slightly by adding the educational variables in column (3). Again, the labor market history variables in column (4) seem to have the highest explanatory power, while the impact of job search characteristics and expectations is rather small. In general, we can explain a reasonably large part of the reservation wage gap for those individuals who are employed in the second wave. When we include all four groups of covariates, a gender gap in reservation wages of 6.7% remains. Therefore, we can explain about 46.4% of the original gap in reservation wages. Finally, we also include the last wage before entering unemployment as a control variable in columns (7) and (8), since this is used as a proxy for reservation wages in many empirical studies. While this reduces the reservation wage gap a bit further, a significant gap of 5.2% still remains unaccounted for.

[INSERT TABLE 4 ABOUT HERE]

4.2 Heterogeneity in the Gender Gaps

Since the observed characteristics included in the decomposition of the reservation wage gap are only partially successful in explaining the gender differences, we now exploit the gender gap in realized wages and reservation wages for different subgroups – based on education, labor market experience and personality – that are expected to be differently affected by related unobserved factors that potentially explain the unexplained part in the reservation wage gap. The idea is to find subgroups where there is neither a gender gap in reservation wages nor realized wages. To the extent that the same unobserved factors affect realized wages and reservation wages, this exercise will allow us to potentially identify unobserved factors that play an important role in the evolution of the two gender wage differentials. Table 5 present the subgroup estimates for decomposing the wage and reservation wage gaps. The results for realized wages correspond to the specification (6) in Table 2 where we include all covariates except for the reservation wage, while the estimates for reservation wages correspond to specification (8) where we include all four groups of covariates and the last realized wage before unemployment.

[INSERT TABLE 5 ABOUT HERE]

First, as discussed before, employer-preferences, e.g., taste-based discrimination against women, is one potential explanation for the gender gap in reservation wages when the discriminatory behavior is anticipated by individuals in the labor market. Assuming that these expectations are related to one's own labor market experiences, it is useful to distinguish between people with low/high labor market experience. We expect women who have spent only a short time in employment to be less likely to have experienced discrimination in the past and hence also to be less likely to expect discrimination in future jobs. Our measure of experience is computed using the ratio of months spent in employment and the individual age in years minus 18 in order to disentangle potential age and experience effects. Based on using median experience as the dividing line, we estimate gender gaps for those with low experience and those with high experience. Columns (3) and (4) in Table 5 show that there is no gender gap in reservation wages for those with low experience and also no corresponding gender gap in observed wages in wave 2, while for those with more labor market experience, a significant gender gap in reservation wages and realized wages emerges. The strong correlation between the size of the gender gap and the level labor market experience indicates, on the one hand, that women's expectations

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about employer-preferences play an important role for reservation wages and actual realized wages. However, on the other hand, for our sample of individuals recently starting a new job after a period of unemployment, there is no evidence for actual discrimination against women among those with little labor market experience. It should be noted that this is in line with the findings of experimental studies showing that discrimination against women is more important when applying for high-skilled jobs (e.g. Petit, 2007) or promotion decisions (e.g. Baert *et al.*, 2016).

Second, we expect that an individual's productivity influences not only actual wage offers but also wage expectations. As educational qualifications are likely to capture some of these productivity differences, we also examine the gender gap for individuals with A-level qualifications or higher (column 5), and those with less than A-level qualifications (column 4). Once again we find a pairing of there being no gender gap in reservation wages and observed wages for those with higher than A-level qualifications, reinforcing the notion that the two gaps are closely related and indicating that having a higher level of education is associated with men and women being more similar, as productivity differences are expected to be less pronounced within the group of high educated workers.

Third, we also examine subgroups based on job-seeker's personality. In particular, we divide the estimation sample into individuals with respect to their level of openness, which is part of the so called 'Big Five' personality traits. As shown by Mueller and Plug (2006), openness is associated with substantially higher earnings for men and women. One reason for that might be that individuals who are open to experiences have preferences for different types of jobs or behave differently in wage negotiations. In our sample it can be seen that the gender wage gap for individuals with low levels of openness (6.3%, column 6) is above that of the full sample, while for those with high levels of openness (column 7) there is no significant gender gap in realized wages. Moreover, the gender gap in reservation wages for this subgroup is very similar to the gender gap in realized wages in terms of size and statistical significance. This indicates that differences in personality traits, that might be associated with gender differences in job preferences (see Goldin, 2014; Kleinjans and Fullerton, 2013) and the behavior in salary negotiations (see Solnick, 2001), are another important driving factor for reservation wages that could explain our baseline findings.

The results of the subgroup analysis have important implications for the interpretation of our initial decomposition analysis by allowing us to identify potential reasons for why men and women set different reservation wages. First, women could anticipate discrimination in the labor

market and adjust their reservation wages accordingly. This argument is supported by the fact that we find no gender gap in reservation wages for women with little labor market experience (relative to their age). Second, there might be gender differences with respect to productivity. We find evidence for this as both gaps become statistically insignificant when focusing on high educated workers which are expected to be more similar in terms of productivity. Finally, we find no gender gap in wages and reservation wages for individuals who are similar in terms of personality traits (a high level of openness), which is expected to proxy for gender differences with respect to job preferences and wage bargaining behavior.

5   Conclusion

The economic literature typically finds a persistent wage gap between men and women. In this paper, based on a sample of newly unemployed persons seeking work in Germany, we find that the gender wage gap becomes small and statistically insignificant once we control for reservation wages in a wage decomposition exercise. Although, our estimation sample comprises a very specific group of individuals, unemployed job-seekers are arguably the most relevant group when utilizing the concept of reservation wages. Moreover, we focus on a very homogeneous group of workers which has the advantage that potential endogeneity of reservation wages has only minor impact on our empirical findings. The latter is supported by the heteroskedasticity-based instrumental variable approach, as well as the subgroup analysis which shows strong correlations between the gender gap in reservation wages and realized wages.

As the gender gap in actual wages appears to mirror the gender gap in reservation wages, there is a clear need to better understand why there are gender differences in the way reservation wages are set in the first place. We believe that the exploratory results in our paper can help to better understand what the driving forces behind this gender gap are. First, differing expectations can be important in explaining the reservation wage gap and might arise for various reasons. Our empirical findings that the gender gap in reservation wages appears to increase with labor market experience suggests that expectations are changing over time in a non-symmetric fashion for men and women. A potential explanation implies that women who had experienced discrimination in the past set relatively low reservation wages which translates into the gender gap in realized wages. This kind of self-fulfilling prophecy could potentially cause a gender gap in realized wages even in the absence of actual discrimination. Second, the gender gap in reservation wages could reflect productivity differences between men and women. As reservation

wages reflect a worker's own valuation of their time while employed, high productivity work-
ers are likely to set relatively higher reservation wages. On the other hand, lower productivity
workers will tend to receive fewer wage offers and experience longer unemployment spells (e.g.
by virtue of signaling lower observable ability in a job interview). This will lead them to lower
their reservation wages over time in order to increase their employment prospects. Third and
finally, the gender gap in reservation wages might exist because men and women have different
personality traits or preferences which results in gender differences with respect to the value of
non-market time and different job characteristics, like flexible time at work and on the continuity
of work hours. Future research might want to focus on designing survey questions that better
elicit information on the nature of such differing expectations or preferences to help disentangle
between these factors.

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Tables and Figures

Table 1: Selected Descriptive Statistics by Gender

	Men	Women	*P*-Value
No. of observations	1,235	739	
Hourly realized wage in wave 2 in €	9.28	7.93	0.000
A. Observed individual-level characteristics			
1) Baseline variables			
Living in West-Germany	0.671	0.655	0.458
Migration background	0.121	0.116	0.736
Age in years	36.53	36.21	0.505
Married (or cohabiting)	0.386	0.318	0.002
Children			
One child	0.180	0.166	0.451
Two (or more) children	0.125	0.066	0.000
Local UE Rate at Interview			
below 5%	0.168	0.185	0.337
15+%	0.111	0.115	0.781
2) Personality traits			
Openness[a]	4.995	5.104	0.043
Conscientiousness[a]	6.196	6.383	0.000
Extraversion[a]	5.136	5.287	0.002
Neuroticism[a]	3.498	3.853	0.000
Locus of control[a]	5.138	5.047	0.009
Life satisfaction: High (7-10)[b]	0.517	0.533	0.498
3)Education			
School leaving degree			
Lower secondary school	0.319	0.165	0.000
Middle secondary school	0.399	0.447	0.039
Specialized upper secondary school	0.265	0.376	0.000
Vocational training			
Internal or external professional training, others	0.677	0.682	0.815
Technical college or university degree	0.272	0.249	0.260
4)Labor market history			
Unemployment benefit recipient	0.824	0.829	0.768
Level of unemployment benefits in €	693.77	573.09	0.000
Lifetime months in employment (div. by age-18)	9.315	7.681	0.000
Employment status before unemployment			
Regular Employed	0.737	0.698	0.064
Subsidized employment	0.078	0.055	0.060
School, apprentice, military, etc.	0.125	0.168	0.008
5) Job search & expectations			
Number of own job applications	16.42	16.63	0.813
Applied for vacancies for which you would have to move	0.342	0.299	0.050
Job search by contacting friends, acquaintances, family, etc.	0.857	0.848	0.617
Expected ALMP probability: High (7-10)[b]	0.319	0.359	0.071
Expected employment probability: Very probable	0.577	0.482	0.000
B. Soliciting the reservation wage			
Hourly reservation wage in wave 1 in €	8.05	7.00	0.000
Step 1:			
Expected monthly net income in €	1,668.90	1,377.34	0.000
Expected weekly hours of work	42.46	40.23	0.000
Step 2:			
Willing to work for less than expected wage	0.742	0.743	0.952
Monthly minimum net income in €[c]	1,390.76	1,115.47	0.000
Expected weekly hours of work for min. income[c]	40.09	37.91	0.000
Accepting a wage below the reservation wage	0.336	0.317	0.375
Difference between reservation wage and accepted wage	1.23	0.93	0.406

Note: All numbers are shares unless indicated otherwise. Variables are measured at entry into unemployment. *p*-values are based on *t*-tests on mean equality. The full list of explanatory variables is depicted in the notes of Table 2.
[a]Openness, conscientiousness, extraversion, neuroticism and locus of control are measured with different items on a 7-Point Likert-Scale.
[b]Life satisfaction and expected ALMP probabilities are measured on a 0-10 scale increasing from low to high and categorized into three groups.
[c]Observed for those individuals who are willing to work for less than the expected income, i.e. 916 men and 549 women.

Table 2: Decomposition of the Gender Gap in Realized Wages and the Role of Reservation Wages

	Raw gap	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log hourly realized wage in wave 2									
Unexplained (total)	-0.119***	-0.100***	-0.107***	-0.127***	-0.056***	-0.105***	-0.050**	-0.034*	-0.024
	(0.022)	(0.021)	(0.0213)	(0.021)	(0.022)	(0.021)	(0.021)	(0.019)	(0.0194)
Explained (total)		-0.019**	-0.012*	0.008	-0.063***	-0.014***	-0.069***	-0.085***	-0.095***
		(0.008)	(0.006)	(0.009)	(0.012)	(0.005)	(0.015)	(0.012)	(0.015)
%-share explained (total)		16.0	10.1	-6.7	52.9	11.8	58.0	71.4	79.8
Explained by									
Log reservation wage in wave 1								-0.086***	-0.049***
								(0.012)	(0.008)
No. of observations	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974
Control variables									
1) Baseline variables		✓					✓		✓
2) Personality traits			✓				✓		✓
3) Education				✓			✓		✓
4) Labor market history					✓		✓		✓
5) Job search & expectations						✓	✓		✓

Note: Depicted are estimation results of a Blinder-Oaxaca decomposition. */**/*** indicate statistically significance at the 10%/5%/1%-level. Standard errors are shown in parenthesis.

1) Baseline variables: Marital status, German citizenship, age, migration background, number of children, place of residence (East- or West-Germany), local unemployment rate, month of entry into unemployment

2) Personality traits: Openness, conscientiousness, extraversion, neuroticism, locus of control, life satisfaction

3) Education: School leaving degree (none, lower, middle or upper secondary education), vocational training (none, professional training – internal or external, technical college or university degree)

4) Labor market history: Time between entry into unemployment and interview, unemployment benefit recipient, level of unemployment benefits, lifetime months in unemployment (div. by age-18), lifetime months in employment (div. by age-18), employment status before unemployment

5) Job search & expectations: Number of own job applications (since entry into unemployment), application for jobs involving a relocation, searching for a new job via friends or acquaintances, expected probability to find a job in next 6 months, expected probability of program participation

Table 3: Sensitivity Analysis: Generated Instrumental Variable Approach

Outcome variable: Log hourly realized wage in wave 2	(0)	(1)	(2)	(3)	(4)	(5)
A. 2SLS estimation						
Female		-0.016	-0.018	-0.033	-0.024	-0.016
		(0.021)	(0.021)	(0.021)	(0.018)	(0.018)
Log reservation wage in wave 1		0.726***	0.681***	0.597***	0.384***	0.369***
		(0.092)	(0.084)	(0.087)	(0.077)	(0.063)
No. of observations		1,974	1,974	1,974	1,974	1,974
R^2		0.278	0.289	0.307	0.341	0.343
Adjusted R^2		0.269	0.277	0.294	0.323	0.322
$F-$statistic for weak identification		9.85	10.80	12.58	10.80	10.27
Breusch-Pagan test χ^2 for heteroskedasticity		8.54	16.16	21.70	22.40	23.75
		{0.003}	{0.000}	{0.000}	{0.000}	{0.000}
Sargan-Hansen test J for overidentification		43.81	44.95	39.82	60.91	68.57
		{0.006}	{0.039}	{0.264}	{0.161}	{0.209}
B. OLS estimation						
Female	-0.034*	-0.032*	-0.030	-0.050***	-0.029	-0.024
	(0.019)	(0.019)	(0.019)	(0.019)	(0.020)	(0.020)
Log reservation wage in wave 1	0.685***	0.613***	0.587***	0.496***	0.399***	0.390***
	(0.027)	(0.039)	(0.039)	(0.041)	(0.043)	(0.044)
No. of observations	1,974	1,974	1,974	1,974	1,974	1,974
R^2	0.257	0.285	0.294	0.313	0.347	0.350
Adjusted R^2	0.256	0.275	0.282	0.299	0.329	0.329
Control variables						
Baseline variables		✓	✓	✓	✓	✓
Personality traits			✓	✓	✓	✓
Education				✓	✓	✓
Labor market history					✓	✓
Job search & expectations						✓

Note: Depicted are regression results of the gender gap in realized wage in wave 2 using 2SLS with generated instrumental variables (Panel A), respectively OLS (Panel B). */**/*** indicate statistically significance at the 10%/5%/1%-level. Standard errors are shown in parenthesis, respectively p-values in curly brackets. For the full set of explanatory variables see notes of Table 2.

Table 4: Decomposition of the Gender Gap in Reservation Wages

	Raw gap	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log hourly reservation wage in wave 1									
Unexplained (total)	-0.125***	-0.112***	-0.111***	-0.130***	-0.070***	-0.115***	-0.067***	-0.065***	-0.052***
	(0.016)	(0.015)	(0.016)	(0.015)	(0.015)	(0.016)	(0.014)	(0.013)	(0.013)
Explained (total)		-0.013*	-0.014***	0.005	-0.055***	-0.010***	-0.058***	-0.060***	-0.073***
		(0.007)	(0.005)	(0.007)	(0.010)	(0.004)	(0.012)	(0.009)	(0.013)
%-share explained (total)		10.4	11.2	-4.0	44.0	8.0	46.4	48.0	58.4
Explained by									
Log realized wage before unemployment								-0.133**	-0.084**
								(0.053)	(0.035)
No realized wage before unemployment								0.073	0.047
								(0.051)	(0.033)
No. of observations	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974
Control variables									
1) Baseline variables		✓					✓		✓
2) Personality traits			✓				✓		✓
3) Education				✓			✓		✓
4) Labor market history					✓		✓		✓
5) Job search & expectations						✓	✓		✓

Note: Depicted are estimation results of a Blinder-Oaxaca decomposition. */**/*** indicate statistically significance at the 10%/5%/1%-level. Standard errors are shown in parenthesis. For the full set of explanatory variables see notes of Table 2.

Table 5: Subgroup Analysis: OLS Estimates for Realized Wages and Reservation Wages

|	Full sample	LM experience[a]		A-level		Openness[b]	
		Low	High	No	Yes	Low	High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Log hourly realized wage in wave 2							
Female	-0.050**	-0.018	-0.102***	-0.065**	-0.026	-0.063**	-0.025
	(0.021)	(0.018)	(0.032)	(0.026)	(0.036)	(0.028)	(0.033)
No. of observations	1,974	989	985	1,369	605	1,073	901
R^2	0.305	0.386	0.277	0.248	0.371	0.302	0.351
Adjusted R^2	0.283	0.345	0.229	0.213	0.304	0.260	0.305
B. Log hourly reservation wage in wave 1							
Female	-.052***	-0.015	-0.097***	-0.077***	-0.015	-0.065***	-0.030
	(0.012)	(0.019)	(0.017)	(0.015)	(0.025)	(0.017)	(0.019)
Log realized wage before unemployment	0.316***	0.338***	0.302***	0.320***	0.315***	0.303***	0.328***
	(0.016)	(0.026)	(0.020)	(0.019)	(0.032)	(0.021)	(0.026)
No realized wage before unemployment	2.076***	2.304***	1.877***	2.046***	2.163***	2.002***	2.133***
	(0.106)	(0.170)	(0.137)	(0.124)	(0.212)	(0.141)	(0.169)
No. of observations	1,974	989	985	1,369	605	1,073	901
R^2	0.535	0.553	0.573	0.484	0.549	0.537	0.549
Adjusted R^2	0.520	0.522	0.544	0.459	0.499	0.508	0.516
Control variables							
1) Baseline variables	✓	✓	✓	✓	✓	✓	✓
2) Personality traits	✓	✓	✓	✓	✓	✓	✓
3) Education	✓	✓	✓	✓	✓	✓	✓
4) Labor market history	✓	✓	✓	✓	✓	✓	✓
5) Job search & expectations	✓	✓	✓	✓	✓	✓	✓

Note: Depicted are regression results of the gender gap in realized wage in wave 2 (upper part) and reservation wages in wave 1 (lower part) using OLS. */**/*** indicate statistically significance at the 10%/5%/1%-level. Standard errors are shown in parenthesis. The decomposition of the realized wage gap does explicitly not include the reservation wage as control variable, while the decomposition of realized wages include previous wages as a covariate. For the full set of explanatory variables see notes of Table 2.
[a]Labor market (LM) experience refers to the lifetime months in employment divided by age-18. Low (High) level of LM experiences refers to values below (above) the median.
[b]Openness is measured with different items on a 7-Point Likert-Scale. Low (High) level of openness refers to values below (above) the median.
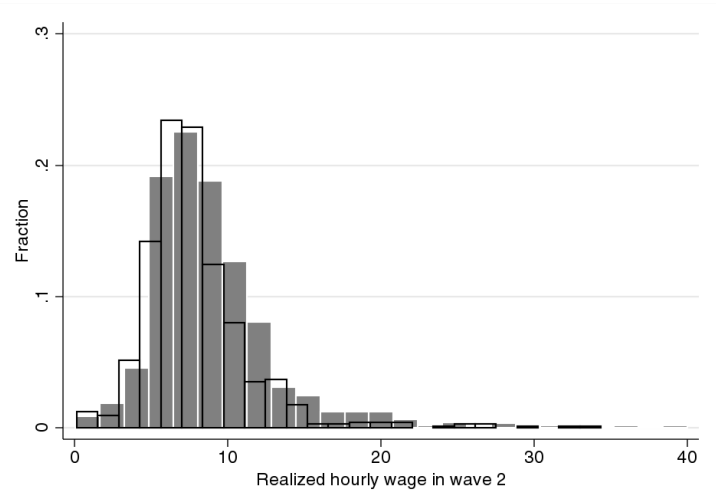
Figure 1: Distribution of Reservation Wages, Realized Wages and Previous Wages by Gender
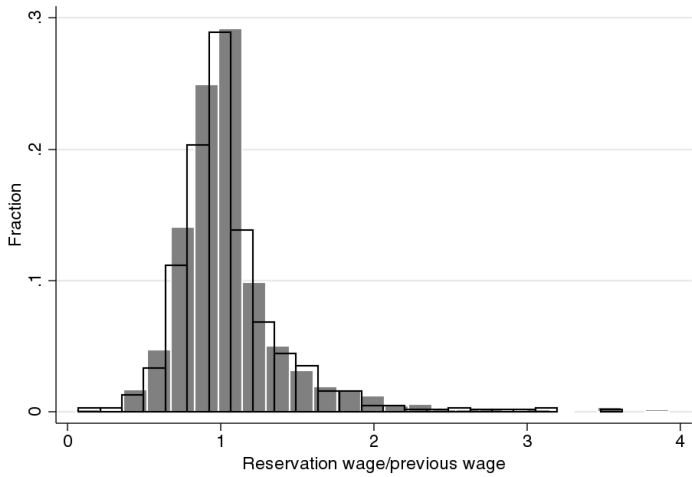
(a) Reservation wages
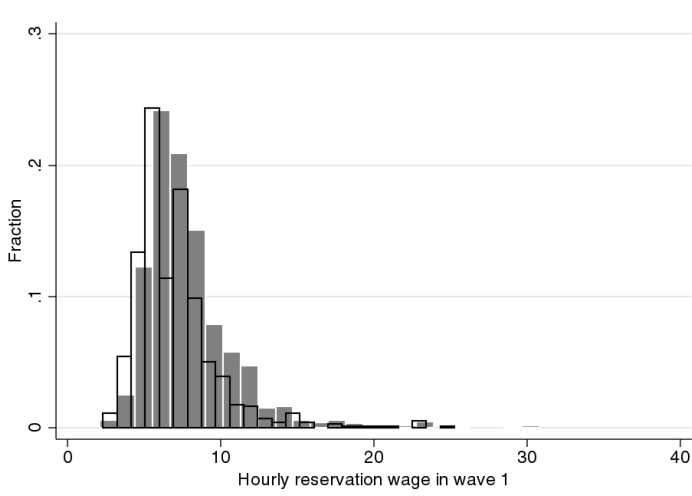
Kolmogorov-Smirnov test: $D = 0.170$; $p = 0.000$
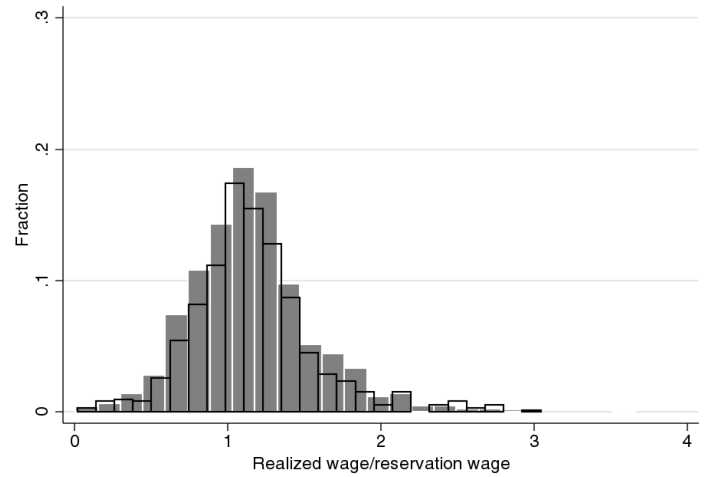
(b) Realized wages

Kolmogorov-Smirnov test: $D = 0.145$; $p = 0.000$

(c) Reservation wage/previous wage

Kolmogorov-Smirnov test: $D = 0.022$; $p = 0.988$

(d) Realized wage/reservation wage

Kolmogorov-Smirnov test: $D = 0.038$; $p = 0.481$

Note: (a) Reservation wages and (b) realized wages, as well as (d) the ratio of reservation wages and realized wages are depicted for all individuals of the main sample (n=1,974), while (c) the ratio of reservation wages in wave 1 and previous wages is only observed for a subsample (n=1,719).

A Supplementary Appendix: Properties of Reservation Wages

As we use reservation wages measured in wave 1 to perform a wage decomposition one year later in wave 2, an assumption that we need to make is that reservation wages do not change differently for men and women over the course of time. Unfortunately, it will not be possible to check the plausibility of the assumption for our analysis sample as questions regarding reservation wages are not asked once an individual is employed and our wage decompositions are based on those who are employed in wave 2. Instead, we will rely on examining various samples of individuals in our data who continue to remain in an unemployed state over time to determine if and when reservation wages might change over time. Therefore, we utilize the fact the IZA Evaluation Dataset contains two more waves of interviews. The interim wave takes place about 6 months after the entry into unemployment, while wave 3 of the survey is conducted about 36 months after entering unemployment.[7]

A.1   Descriptive Statistics

In Table A.1, we specifically present descriptive statistics on changes in reservation wages over time for three different groups of individuals: (i) unemployed in waves 1 and 2; (ii) unemployed in wave 1 and interim wave; (iii) unemployed in waves 1, 2 and 3. This allows us to to look at the time trend of reservation wages over a period of between 7 to 14 weeks after the entry into unemployment till three years later for those that remain unemployed. We can see that in Panel A (the sample that focuses on changes between waves 1 and 2 and which is most relevant for our purposes), the reservation wages decreases very slightly over the 12 month period between waves 1 and 2. This is also the case for the sample in Panel B for whom we observe changes over the 6 month period between wave 1 and the interim wave. The samples for the analysis are smaller in Panels C but are suggestive that it is between waves 2 and 3 (one to three years after entering unemployment) that larger changes in reservation wages begin to occur. Hence, within our observation period covering wave 1 and 2, there is no evidence for gender differences with respect to the development of reservation wages.

A.2   Fixed-Effect Estimation

As an additional sensitivity analysis for potential gender differences over the period of the unemployment spell, we regress the reservation wage of those individuals who report the information

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[7]The interim wave is restricted to three entry cohorts only comprising a total of 2,548 individuals, while in the third wave 5,786 individuals are interviewed again.

at more than one interview on the actual unemployment duration at the moment of the interview. This allows us to include individual fixed effects into our analysis. As shown in Table A.2, there is evidence for a non-linear relationship between the unemployment duration and the reservation wage, however, as indicated by the insignificant interaction terms in column 4 and 5, there are no gender differences with respect to elasticity of reservation wages during the unemployment spell.

In summary, our findings suggest that 1) the development of reservations over time and 2) the evolution from previous wages to reservation wages to actual realized wages is similar for men and women allowing us to reasonably include reservation wages (measured at the entry into unemployment) into the decomposition of subsequently realized wages.

Table A.1: Descriptive Statistics: Reservation Wages during the Unemployment Spell

	Men	Women	*P*-Value
Panel A: Unemployed in wave 1 and wave 2			
No. of observations	508	308	
Hourly reservation wage (in Euro)			
Wave 1	7.61	6.27	0.00
Wave 2	7.60	6.19	0.00
Difference (wave 2 - wave 1)	-0.01	-0.08	0.65
Panel B: Unemployed in wave 1 and interim wave			
No. of observations	216	141	
Hourly reservation wage (in Euro)			
Wave 1	7.76	6.41	0.00
Interim wave	7.73	6.37	0.00
Difference (interim wave - wave 1)	-0.03	-0.04	0.93
Panel C: Unemployed in wave 1, wave 2 and wave 3			
No. of observations	74	48	
Hourly reservation wage (in Euro)			
Wave 1	8.21	6.18	0.01
Wave 2	8.19	5.97	0.00
Wave 3	7.73	6.77	0.12
Difference (wave 2 - wave 1)	-0.01	-0.21	0.64
Difference (wave 3 - wave 1)	-0.47	0.58	0.00
Difference (wave 3 - wave 2)	-0.46	0.80	0.01

Note: Depicted are average reservation wages by gender for different samples based on availability of reservation wages in the four waves of the survey.

Table A.2: Fixed-Effect Estimation: The Impact of the Unemployment Duration on Reservation Wages

	(1)	(2)	(3)	(4)	(5)
Unemployment duration in months	-0.0002 (0.0003)	0.0001 (0.0004)	-0.0038** (0.0017)	-0.0036** (0.0017)	-0.0046** (0.0022)
Unemployment duration^2			0.0001** (0.00004)	0.0001** (0.00004)	0.0001** (0.00005)
Female $\times$ unemployment duration				-0.0001 (0.0007)	0.0022 (0.0034)
Female $\times$ unemployment duration^2					-0.0005 (0.0001)
P-value for joint significance					
Unemployment duration(^{2})			0.077	0.076	0.083
Female $\times$ unemployment duration(^{2})					0.775
No. of observations	2,652	2,652	2,652	2,652	2,652
No. of individuals	1,221	1,221	1,221	1,221	1,221
Individual fixed effects	✓	✓	✓	✓	✓
Control variables					
1) Baseline variables		✓	✓	✓	✓
2) Personality traits		✓	✓	✓	✓
3) Education		✓	✓	✓	✓
4) Labor market history		✓	✓	✓	✓
5) Job search & expectations		✓	✓	✓	✓

Note: Depicted are estimated effects of the actual unemployment duration on reservation wages. */**/*** indicate statistically significance at the 10%/5%/1%-level. Standard errors are shown in parenthesis. $P-$values refer to the $F-$statistic for $Wald$ tests of joint significance. Only time-varying covariates are included.