A COMPARATIVE STUDY OF DETERMINATIONS OF RESERVATION WAGE EXPECTATIONS AMONG UNEMPLOYED MEN AND WOMEN IN SRI LANKA

Gunawardena A.P.Y.G.V.[1] and Samaraweera G.R.S.R.C.[2]

Abstract

The "reservation wage" concept indicates the minimum compensation a person is willing to accept when seeking employment. This study aims to determine how reservation wage expectations differ between unemployed men and women in Sri Lanka. This analysis used secondary data extracted from the Sri Lanka Labour Force Survey (2021), which was conducted by the Department of Census and Statistics, and encompasses a sample size of 1,567 total unemployed, comprising 739 unemployed males and 828 unemployed females. A semi-log model was applied separately to the unemployed men, the unemployed women and the total unemployed to achieve the study's objective. The results indicated that gender significantly influences reservation wage expectations among unemployed men and women. Compared with women, unemployed men have a higher reservation wage expectation. Noteworthy variables, including household size, age, and unemployment duration, exhibit varying degrees of insignificance in shaping reservation wage expectations for both genders. Finally, this study concluded that the reservation wage expectations among unemployed men and women in Sri Lanka are significantly affected by various demographic, household socio-economic and regional geographical factors. This study provides valuable insights for policymakers to foster gender equality and labour market inclusivity to reduce the gender gap in Sri Lanka.

Keywords: Gender differences, Job Search Theory, Reservation Wage Expectations, Unemployment, Unemployment Duration

[1] Graduate, Sabaragamuwa University of Sri Lanka, Department of Economics and Statistics. *Corresponding author. Email: yashoragayashi@gmail.com
[2] Professor in Economics, Sabaragamuwa University of Sri Lanka, Department of Economics and Statistics. Email: sumadi@ssl.sab.ac.lk

1. Introduction

Unemployment remains a pressing socio-economic issue in Sri Lanka, affecting individuals across various demographic groups. A key reason for high and persistent unemployment rates is rigid reservation wage expectations, which may lead to higher and persistent unemployment rates for those who are unemployed and less likely to accept a job. Sri Lanka's unemployment rate stands at 5.1 per cent as of 2021, which is an increase compared to the pre-pandemic period (before 2019) (Sri Lanka Labour Force Survey: Annual Report, 2021). Although female unemployment is consistently higher than male unemployment, male unemployment rates fluctuate between 3–4 per cent, whereas female unemployment rates range between 6–8 per cent. Female labour force participation is influenced by various factors on the demand side, such as the country's level of growth and development, the nature of the job, the availability of jobs, job security, wage levels, employer preferences, and economic incentives such as taxation policies and labour laws. On the supply side, factors include women's reproductive and child-caring responsibilities, educational attainment, household income, marital status, maternal duties, and cultural and social norms and beliefs (Samarakoon & Mayadunne, 2018). As this "expectations gap" leads to unemployment, many available jobs offer wages that are too low to attract interest, causing individuals to wait for better opportunities. Educational attainments significantly increase future wage expectations, especially when individuals are young and have short unemployment spells. Then, the reservation wage decreases with longer spells of unemployment (Petreski & Oviedo, 2019). Further explanation regarding reservation wage expectations can be drawn from the results of Heltberg and Vodopive (2004), which show the unemployment rate as a function of the ratio of reservation wage over the 1992–2002 period relative to the median actual earnings of employees with less than three years of job experience.

Reservation wage is one of the important factors in an unemployed person's ability to find a suitable job, and it affects the level of wages he/she receives (Lancaster & Chesher, 1983). The reservation wage constitutes the starting point of the individual labour supply curve because, below this wage level, the individual chooses not to work, which is relevant to modelling labour supply decisions through its effect on the transition from unemployment to employment. Therefore, from both an analytical and a policy standpoint, it is crucial to understand the macroeconomic and microeconomic factors that have an impact on the reservation wage. This is common in the economy of any country. If you are unemployed, you normally look for a job. During the job search process, several decisions must be made. In terms of rational behaviour, an unemployed person makes an optimal choice between accepting a job offer and remaining unemployed for another period. In that case, you will have to choose the methods of job search, the intensity of the search, and an acceptable minimum wage. This is called a reservation wage. The methods and intensity of job search, as well as the reservation wage, affect the probability of finding a job. This affects the duration of unemployment. Individuals cannot change labour demand. However, he/she can adapt himself/herself to the labour market by modifying his/her qualifications or moving to another region. This will increase his/her chances of finding a job. From a short-run perspective, an individual with

stable characteristics can influence the chances of finding a job through the level of reservation wage, job search methods and intensity (Hinnosaar, 2004).

The reservation wage is considered the wage level that exists for everybody in any society, economy or country and varies among individuals due to diverse factors such as social, economic and demographic features, personality, attitudes, expectations, level of education and family responsibilities. A high reservation wage diminishes the probability of working and leads to a longer unemployment period (Jones, 1989; Lancaster & Chesher, 1983). Differences in gender-based reservation wages, impact educational and labour market choices, household bargaining processes, and wage-setting processes, leading to differences in the rate of labour market participation among men and women. These expectations may reflect perceived wage disparities, influencing decisions and representing additional opportunity costs in entering the labour market.

The gender gap could have partially been caused by women accepting lower wages. It is probably the case as a consequence of their awareness of gender-based discrimination, prejudice and labour market segregation, plus the higher opportunity costs women have to bear to enter the workforce (Brown, Roberts, & Taylor, 2011). Consequently, if reservation wages are to be responsible for the gender gap, it is necessary to determine whether there are gender differences.

These reservation wage expectations caused unemployment to rise, which led to a continuous unemployment rate with gender differences for a long period in Sri Lanka. Several studies have explored wage differentials between genders, but there remains a noticeable dearth of research on reservation wage expectations in the Sri Lankan context. So, the prime reason why reservation wage expectations were chosen for this study is that we had the opportunity to observe, both closely and from afar, the impact of future expectations on individual employability, especially during the crisis period, when we could observe how the changing direction of expectations radically affected social and economic decisions. Thereby, this study takes a fresh look at the unemployment problem while using the LFS records for the year 2021 to determine how reservation wage expectations differ among unemployed men and women in Sri Lanka.

Research objectives
The main focus of this study is to compare the determinants of demographic, household, socio-economic, and geographical factors that are associated with reservation wage expectations among unemployed men and women in Sri Lanka.

2. Literature Review
2.1. Theoretical review
The job search theory has been offered as one explanation for unemployment in recent years. A key element of the theory requires that workers behave as if they were operating on a reservation wage strategy. According to the search theory, once unemployed, an individual adjusts his duration of unemployment according to the marginal calculus of expected benefits and expected costs of additional search (Hasan & Gera, 1982). Furthermore, expectations of either employment or unemployment are related to the duration of the job search. The standard job search theory suggests that the potential worker's problem is choosing an acceptance wage that assures an income greater than that which the person could receive from a continued search. So, a model of job search theory is necessary to analyze the determinants of reservation wages in detail (Hinnosaar, 2004; Christensen, 2001; Jones, 1989; Lancaster & Chesher, 1983). The queue theory explains that to obtain the desired job, the unemployed person accepts the employer's lowest wage offer. The unemployed person must wait longer to be hired if the minimum expected wage is high. The longer the waiting period, the lower the likelihood of finding employment and the lower the unemployed person's minimum expected wage. Simply put, this is an important theory that accounts for the length of unemployment and the expected wages of unemployed individuals (McCall, 1970).

The reservation wage can be identified as the lowest wage at which an individual is willing to work, which plays a key role in labour market analysis. The reservation wage can also be considered a measure of a person's willingness or unwillingness to accept employment, which plays a key role in traditional job search theory (Morttesen, 1986). The theory of reservation wages and the labour-leisure choice model are two models that are used to explain an individual's participation in the labour force and labour supply from a neoclassical economic perspective. As the decision to participate in the labour market depends on the gap between an individual's reservation wage rate and the market wage rate, the theory implies that labour force participation decisions are positively affected by a low reservation wage and negatively affected by a high reservation wage. The labour-leisure choice model is an economic framework that analyzes how individuals decide how much time to allocate between working (labour) and non-working activities (leisure). The theory states that when the reservation wage is held constant, increases in the market wage rate will increase the labour force participation rate. As long as non-labour income increases, reservation wages are likely to rise, as people prefer leisure over work (Samarakoon & Mayadunne, 2018). The graphical representation of this scenario can be presented as follows;

Figure 1: Graphical representation of reservation wage
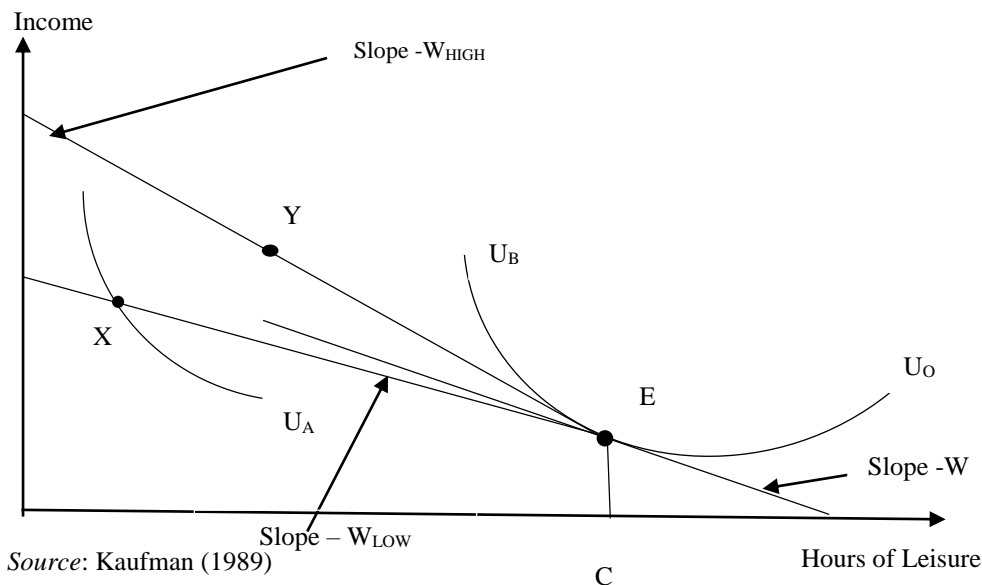
Source: Kaufman (1989)

When considering the theory behind the reservation wage, individuals aim to maximize their expected current value of future income streams over an infinite horizon in the labour market. The optimal reservation wage in such a situation can be defined as follows, in light of Lancasr and Chesher's (1983) assumption that wage offers are determined independently of a known wage offer distribution:

$$W^r = b + \frac{\lambda}{p} \int_{w^r}^{\alpha} (x - w^r) dF(w) \ldots\ldots\ldots\ldots\ldots\ldots\text{Equation 01}$$

In equation 01,

w^r – Reservation Wage

b - Net Unemployment Benefit

λ - Job Offer Rate

ρ - Discount Rate of Future Income Streams

X -Wage Offer with Distribution Function (w)

Considering the above equation 01, when an individual receives a wage offer that is greater than or equal to, he or she will accept the offer, as the optimal reservation wage level is determined at the level at which the marginal benefit of the job search equals its marginal cost. On the other hand, if it is less than w^r, he/she will refuse the offer and keep on searching for a new job or remain unemployed. In addition to what Lancaster and Chesher (1983) noted, a person should make a rational choice that satisfies the following requirement:

$b \leq w^r \leq$ x ……………………………Equation 02

To satisfy the condition, there are two requirements:
  i.   An individual's unemployment benefits (b) must be less than or equal to the minimum reservation wage (w^r)
  ii. The reservation wage (w^r) is less than or equal to the minimum expected wage (x) shaped with a wage offer.

According to Abbring et al., (2005), reservation wages can be expected to decrease if unemployment benefit payments are reduced as a sanction for insufficient job search intensity or if benefit levels gradually decrease over time. This is because unemployment benefits reduce the opportunity cost of the search. When unemployment benefits are a discontinuous function of time, such as when their benefits are limited, the reservation wage should gradually decline since the optimal strategy for job seekers is to lower their reservation wage as the time limit approaches. Kasper (1967) mentioned that because the marginal utility of leisure declines over time due to unemployment duration, reservation wage also diminishes.

2.2. Empirical review
Reservation wage expectations among males and females
The existing literature offers various explanations for the gender gap, including differences in expectations and preferences. Most empirical studies on reservation wages also have observed considerable differences between wage expectations reported by men and women. Extensive empirical literature exists (Franz, 1980; Jones, 1989; Christensen, 2001; Prasad, 2003; Brown, Roberts, & Taylor, 2011; Malk, 2014; Istekli & Senturk, 2016), which has explored the determinants of reservation wage setting at the individual level. All the studies examining the determinants of the reservation wage have shown that the reservation wage is affected by different factors such as distinct characteristics, demographic factors, socioeconomic factors, and geographical factors.

Demographic determinants on reservation wage expectations.
The majority of the scholars surveyed pointed out that men and women have different reservation wage expectations (Brown, Roberts, & Taylor, 2011; Haurin & Sridhar, 2003; Hinnosaar, 2004; Istekli & Senturk, 2016; Malk, 2014). Hinnosaar (2003) has found that gender is one of the important determinants of reservation wages, as unemployed women have a much lower reservation wage than unemployed men. This is confirmed by many researchers, such as Istekli and Senturk (2016); Malk (2014); Petreski and Oviendo (2019); Florenz, Posada and Melo-Becerra (2021); Caliendo, Lee and Mahlstedt (2017). Vasilescua and Begu (2018) stated that the highest coefficient was obtained for gender, revealing that men have higher reservation wages than women. Brown, Roberts and Taylor (2011) have also found the same results, which show that reservation wages are related to unobserved productivity differences between men and women. Consequently, highly productive workers set relatively higher reservation wages since reservation wages reflect their valuation of time while employed. It is possible that gender differences in preferences could lead to different

expectations in reservation wages, since higher reservation wages for males may reflect their tendency to be more competitive, which may translate into better salary outcomes in salary negotiations (Cailendo, Lee, & Mahlstedt, 2017). Walker (2003) proposed some arguments for the reasons behind "why do male reservation wages tend to be higher than females?" It can be argued that culture and society significantly influence the earning roles expected of men. As a result of the expectation that males will be the breadwinners, they tend to have higher reservation wages than females on average. Age is another critical determinant of reservation wage expectations. Florenz, Posada and Melo-Becerra (2021); Axlerd, Lusk and Maul (2017); Prasad (2000); and Walker (2003) have explored that age is positively associated with reservation wage expectations.

Florez, Posada and Melo-Becerra (2021) revealed that different demographic groups may have different discount factors, which cause different reservation wage expectations. For instance, middle-aged workers who are more tied to the labour market will set higher reservation wages than younger groups who are weakly attached to the labour force and have not yet decided on their career paths. Hinnosaar (2004) also stated that older people in the age group 50 and above have lower reservation wages than the 25–49 age group of people. Prasad (2000) indicated that the reservation wage decreases until about age 53 and then increases with age, consistent with older employees having higher reservation wage thresholds as they approach retirement. Florenz, Posada and Melo-Becerra (2021) revealed that people under the age of 25 have a lower reservation wage than older people. Then, for a higher proportion of individuals, the difference in the reservation wage of younger workers is much higher than that of older workers. This may be the result of differences in the opportunity costs faced by those individuals. For example, for young, wealthy individuals, the cost of leaving school is higher than for a poor young individual who probably started working at an early age. Younger women with lower professional experience state similar reservation wages as men, which can suggest that lower wage expectations of women are consequences of experienced or expected discriminatory practices in the labour market (Cailendo, Lee, & Mahlstedt, 2017). Malk (2014) revealed that the reservation wage of the Estonian unemployed decreases with age. Petreski and Oviedo (2019) found similar results, indicating a combination of depreciated human capital, lost motivation and hope, and learning about market conditions. Coefficients of age squared indicate that reservation wage expectations increase with age but at a decreasing rate, according to the findings of Florez, Posada and Melo-Becerra (2021); and Prasad (2000). In addition to the above findings,

Axelrad, Lusk and Malul (2017); and Malk (2014) indicated a negative association between age squared and reservation wage expectations. Walker (2003), to test the possibility of a quadratic relationship between age and reservation wage, introduced a variable that measures age squared. Age-squared variables were found to be insignificant and showed no evidence that reservation wages are at their peak during the middle years of life in his study, which was stated as a different finding compared to other scholars' findings. Klasen and Woolard (2000) implied that ethnicity has a large and significant impact on reservation wages. The results obtained by Walker (2003) revealed that, as a result of regression analysis, ethnicity, which is

accounted for as an explanatory variable, is significant, while the mean reservation wage for Africans is substantially lower than for coloureds. The racial differential in the reservation wage may be a legacy of Apartheid, during which Africans were usually paid the least for comparable jobs and therefore were still willing to accept lower wages.

Based on the existing literature, the study can support the hypotheses:

H1: *Demographic factors affecting reservation wage expectations differ for unemployed men and women in Sri Lanka.*

Household determinants of reservation wage expectations

In line with the literature, the presence of children helps explain the differences between men and women, since having children raises the opportunity cost of accepting a job (Brown, Roberts, & Taylor, 2011). For example, that study illustrated that the number of children increases the reservation wage for both men and women, but significantly more for women. Furthermore, the gender reservation wage gap may result from differing expectations that change over time, particularly widening with the presence of children, as noted by Caliendo, Lee, and Mahlstedt (2014). However, Florenz, Posada and Melo-Becerra (2021) stated that in the presence of children, the reservation wage of both women and men declines, with the highest reduction in the women´s reservation wage. The difference between the reservation wages of women and men without children exists, but it is also less than the difference between the reservation wages of women and men with children. These results are contrasted with the findings of Brown, Roberts and Taylor (2011), suggesting that even though the presence of children may increase the opportunity cost of accepting a job for both women and men, it also increases the value of being employed as a family has larger income needs. Simply put, it was suggested that the negative coefficient indicates a narrowing of the gap between male and female reservation wages; thus, children alone account for women having higher reservation wages than men. By including additional variables in their research, Adams and Ballov Mikukov (2021) found that having children makes men's and women's reservation wages more comparable, whereas women with children, particularly those who are preschoolers, anticipate receiving more pay for combining childcare with paid employment. Prasad (2000) and Haurin (2003) also indicated that married workers and those with a higher number of children tend to have relatively lower reservation wages. In contrast, Petreski and Oviedo (2019); and Florenz, Posada and Melo-Becerra (2021) stated that additional children in the household increase reservation wages.

Therefore, the study is capable of predicting that

H2: *Household factors affecting reservation wage expectations differ for unemployed men and women in Sri Lanka.*

Socio-economic determinants of reservation wage expectations

Extensive empirical literature exists, such as Florez, Posada and Melo-Becerra (2021); Axelrad, Lusk and Malul (2017); Istekli and Senturk (2016); Prasad (2000); Hinnosaar (2003); and Petreski and Oviedo (2019) which reveal that there is a positive and significant correlation between the level of education and reservation wage, where the positive coefficient suggests this is widening the reservation gap. In

terms of education, the results are positive and indicate that a person's reservation wage increases 'for each year of education completed (Walker, 2003). The findings of Prasad (2003) indicated that reservation wage expectations are positively correlated with observed attributes of general human capital, such as the level of education, which is generally higher for men. The reservation wages of men and women differ by education field and type of education, as educated women in mathematics, IT, and physics have higher reservation wages. An increased presence of women in such fields should positively impact their labour market position, measured by employment opportunities and wages, thereby contributing to the reduction of the gender wage gap (Torzewska, 2023). Malk (2014) illustrated that there is no statistically significant difference between the wage expectations of those individuals with primary education and secondary education except for higher education, as it should come as no surprise that the higher the educational level, the higher the reservation wage. This also ties in with the findings of Florez, Posada and Melo-Becerra (2021), who stated that individuals with a high level of education (college or graduate level) may present a higher reservation wage than those with low education (primary or secondary education or non-education), as is suggested by Hofler and Murphy (1994). Petreski and Oviendo (2019) stated that the return to education is found to be significant, both statistically and economically, for the reservation wage. Indeed, for males, the effect of education in determining reservation wages appears to be insignificant (Malk, 2014).

Considering the duration of unemployment, the extensive theoretical and empirical literature has discovered a negative correlation between reservation wages and the length of unemployment (Axelrad, Lusk, & Malul, 2017; Malk, 2014; Petreski & Oviedo, 2019). According to Malk (2014), longer unemployment durations have a negative impact on the reservation wage, leading to lower expectations for the wage individuals are willing to accept. Males and older individuals are primarily responsible for driving this trend. The negative effect is higher for males and has a lower significance for females, which indicates that the downward adjustment of reservation wages in response to the unemployment duration spell is larger for males. However, this might also be because men tend to overestimate their chances of re-employment at the onset of the unemployment spell and set their reservation too high; hence, during the unemployment duration, they need to reduce it to a greater degree. According to the job search theory, there is a negative correlation between reservation wages and unemployment duration. Interestingly, among the investigations into the persistence of reservation wages, to test the theory of static reservation wages, Kiefer and Neuman (1979) and Fisher (1982) used a job-search model with non-static reservation wages, as they found that reservation wages declined significantly with the duration of unemployment, which was according to the job search theory. The result has been found by Franz (1980), Prasad (2001), and Christensen (2001); their studies stated that there is no significant negative influence of the duration of unemployment on reservation wages. Some of the empirical literature provides opposite evidence for the positive relationship. Examining the role of reservation wage in determining unemployment duration has been investigated by Lancaster and Chesher (1983); Jones (1989); and Istekli and Senturk (2016). Addison et al. (2010) revealed that reservation wages declined

throughout the unemployment period and that higher reservation wages led to longer periods of unemployment.

Considering the above literature, the study can anticipate that;

H3: *Socio-economic factors affecting reservation wage expectations differ for unemployed men and women in Sri Lanka.*

Geographical determinants on reservation wage expectations

Haurin and Sridhar (2003) indicated that living in urban places and cities has a positive but low effect on reservation wage expectations among individuals. Heath and Swann (1999) found that individuals who do not reside in urban areas have lower reservation wages. The urban variable demonstrates that the average reservation wage for someone born in an urban region is 18 per cent greater than for someone born in a rural area (Walker, 2003). Istekli and Senturk (2016) indicated that the reservation wage increases with the level of development and productivity of the cities, while individuals living in cities have a lower reservation wage than people living in other residential sectors. Reservation wages rise with the development and productivity of cities, although qualified workers in low-quality cities present a higher reservation wage than those in median-quality cities (Florez, Posada, & Melo-Becerra, 2021). However, Malk (2014) revealed that the regional unemployment rate appears to have a significant negative association with the reservation wage, suggesting that unemployed people who are searching for jobs in more distressed areas in terms of unemployment take into account local labour market conditions in setting their reservation wage, and the level of the regional average wage seems not to be taken into account in decisions about the reservation wage.

In light of the preceding literature, the study can hypothesize that H4: Geographical factors affecting reservation wage expectations differ for unemployed men and women in Sri Lanka.
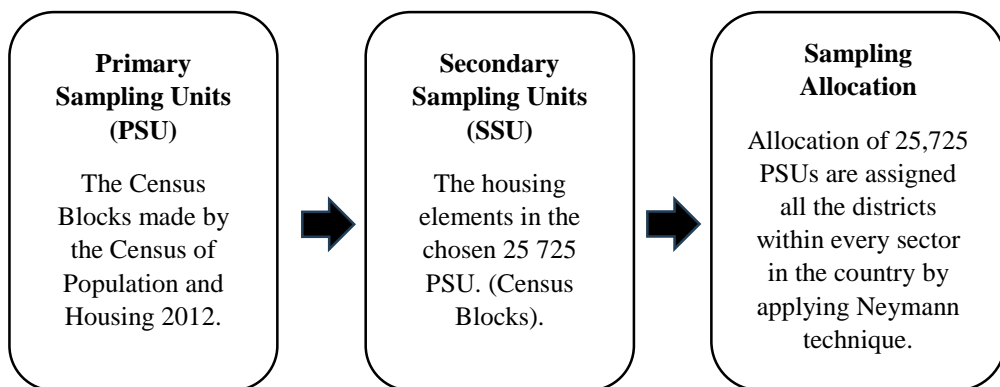
In the context of various countries, reservation wage and its determinants have been examined (Florez, Posada, & Melo-Becerra, 2021; Malk, 2014; Istekli & Senturk, 2016; Adamus & BALLOVÁ MIKUŠKOVÁ, 2021; Axelrad, Lusk, & Malul, 2017; Brown & Taylor, 2013; Brown, Roberts, & Taylor, 2011; Prasad, 2003). However, no other study has been conducted on reservation wage expectations among unemployed men and women in Sri Lanka. To compensate for this lack of research, this study was carried out to compare the determinants of reservation wage expectations among unemployed men and women while taking into account demographic, household, socio-economic, and geographical factors affecting reservation wage expectations.

3. Methodology

By testing the hypothesized relationship outlined in the literature review, the study aims to compare the demographic, household, socioeconomic and geographic factors of reservation wage expectations comparing unemployed men and women in Sri Lanka. Based on the literature review, hypotheses with adequate justifications were constructed to achieve the objective of the study. To test the hypothesis, the researcher conducted explanatory research, which is applied research as it was driven by the need to determine how the significant gender disparity in unemployment is

affected by reservation wage expectations. This research employs a deductive approach since it seeks to analyze pre-existing theories (such as the Job Search Theory (Hinnosaar, 2004; Christensen, 2001; Jones, 1989; Lancaster & Chesher, 1983), the Queue Theory (McCall, 1970), and the Labor-Leisure Choice Model (Samarakoon & Mayadunne, 2018)) without developing new theories. This study was done with a positivist viewpoint, assuming the selected variables that influence reservation wage expectations among unemployed men and women were measured quantitatively. Previous studies by many scholars have used a similar approach (Petreski & Oviedo, 2019; Torzewska, 2023; Istekli & Senturk, 2016; Adamus & BALLOVÁ MIKUŠKOVÁ, 2021; Prasad, 2003; Malk, 2014). The Sri Lanka Labor Force Survey 2021, which is widely regarded as a reliable source of secondary data and has been covering the entire country, including all nine provinces in Sri Lanka, since 2013, is used in this study as the secondary source of data. The 25,750 housing units were chosen as the annual sample for the survey in 2021 using the two-stage stratified sampling.

Figure 2: Sample allocation, primary sampling unit and secondary sampling unit

Primary Sampling Units (PSU)	Secondary Sampling Units (SSU)	Sampling Allocation
The Census Blocks made by the Census of Population and Housing 2012.	The housing elements in the chosen 25 725 PSU. (Census Blocks).	Allocation of 25,725 PSUs are assigned all the districts within every sector in the country by applying Neymann technique.

Source: Developed by the Researcher using the LFS 2021 Annual Report.

The total of 439,784 unemployed population in Sri Lanka, including 206,943 men and 232,840 women, is the target population of the present study. According to question number 57 in the Sri Lanka Labour Force Survey schedule for 2021, reservation wage expectations were identified. For the sample size of reservation wage expectations, 1,567 unemployed people, including 739 males and 828 females above 15 years covering all provinces of the country in 2021 were selected. An unemployed person is someone who has been without a job for more than four weeks, is willing and available to work, is actively seeking employment, and is ready to accept a job opportunity if offered within two weeks (LFS,2021). Unemployed men and unemployed women are generated separately in the form of dummies based on the definitions mentioned in the LFS Annual Report 2021.1, which is assigned for those who are unemployed men and women and o for those who are not.

Using STATA/MP 15.0 statistical software, the 2021 Labour Force Survey secondary microdata has been analysed, with the robust command removing heteroscedasticity and outliers within the variables. Three models were prepared for the reservation wage expectations. The semi-log model includes one variable in logarithmic form, thus the selected dependent variable, reservation wage, takes the logarithmic form in this study. Demographic factors, including gender, age, age square, and ethnicity; household factors, including the number of children, socio-economic factors, including years of schooling and unemployment duration; and geographical factors, including the residential sector that existed in the Sri Lanka Labor Force Survey 2021, were chosen as the explanatory variables for all models based on the literature review. The common equation of the semi-log regression for three models of reservation wage expectations is formulated in the following manner:

$$\ln(Y) = \alpha + \beta i D i + \gamma i X i + U i$$ …………….……Equation 03

In equation 03, ln(Y) indicates the log reservation wage expectation, respectively, for total unemployed, men and women separately. α signifies the constant. βi signifies the coefficients of dummy variables, and γi denotes the coefficients of continuous variables. ui denotes the error term. Demographic, socioeconomic, and geographical factors are represented using both continuous variables (Xi) and dummy variables (Di). Continuous variables (Xi) include age, which refers to the age of 15 years and above for all the unemployed, age square, which adds up the square of the age, and years of schooling, which counts the years of education of the unemployed men and women who are in the sample as a general continuous variable. Dummy variables (Di), constituted with gender, assigning 0 for males and 1 for females; ethnicity, whether Sinhalese or non-Sinhalese, unemployment duration, whether the unemployment duration is more than one year or less than one year; and residential sector, as the unemployed person belongs to an urban or non-urban sector.

4. Results and Discussion

There is a significant gender difference in reservation wage expectations among unemployed males and females in Sri Lanka.

Figure 3 represents the reservation wage expectations by gender unemployed men expect an average reservation wage of Rs. 35,514.63, while unemployed women expect an average reservation wage of Rs. 27,994 by 2021. Caliendo, Lee and Mahlstedt (2017) asserted the same in their study; women have lower reservation wage expectations relative to men as child-rearing and career break expectations of women, and they are less willing to move across jobs.

Figure 3: Reservation wage expectations by gender
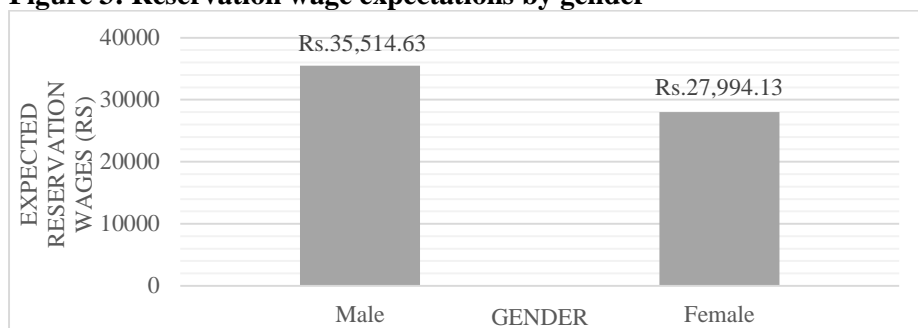
Source: Developed by the researcher using LFS 2021 data

Table 1 indicates the comparison of reservation wage expectations for unemployed men and women in Sri Lanka. The mean, proportion and standard deviation were obtained as descriptive results for each chosen dependent and explanatory variable. According to the descriptive statistics in Table 1 which was conducted with respect to number of unemployed people and with respect to their gender (male or female) distribution. In this way, with a total of 1,567 unemployed people, out of these 52.8 per cent are unemployed female and 47.2 per cent are male. The average age of the expected wage unemployed is 27 years while 26 years for males and 29 years for females. In this sample, the average of an unemployed person with more than 1 year of unemployment duration is 0. 411. The average of years of schooling of an unemployed person is 12 years while11 years for males and 12 years for females.

Table 1: Descriptive statistics for reservation wage expectations of unemployed by gender

Name of the model	Total		Male		Female	
No. of Obs.	1,567		739		828	
Variable	**Mean**	**Std.Dev.**	**Mean/Prop.**	**Std.Dev.**	**Mean/Prop.**	**Std.Dev.**
Dependent Variable						
Ln Reservation Wage	10.352	0.481	10.478	0.476	10.240	0.457
Explanatory variables						
Demographic variables						
Gender						
Female (D1)	0.528	0.499	-	-	-	-
Age (X1)	27.322	9.291	26.66	9.728	27.908	8.848
Age Square (X2)	832.771	684.460	805.564	731.934	857.053	638.589
Ethnicity						
Non-Sinhalese (D2)	0.244	0.429	0.240	0.427	0.248	0.432
Household factors						
Number of Children (X3)	0.342	0.681	0.326	0.659	0.356	0.701
Socio-economic factors						
Years of Schooling (X4)	11.754	2.193	11.340	2.043	12.123	2.257
Unemployment duration						
More than 1 year (D3)	0.411	0.492	0.356	0.479	0.460	0.499

Geographic factors						
Residual sector						
Non-Urban (D4)	0.854	0.353	0.853	0.355	0.855	0.352

Notes: All numbers are rounded to three decimals and (D) and (X) indicate the dummy and continuous variables respectively.
Source: Author's calculations using microdata, 2021

Expressing the Inferential statistics, semi-log regression models were used to analyze the determinants of reservation wage expectations among unemployed men and women, and the findings are shown in Table 2. The following results revealed that there are some notable differences between male and female unemployed individuals in the determinants of reservation wage expectations.

Demographic Factors on reservation wage expectations between unemployed men and women in Sri Lanka

The findings of this study revealed that gender has a significant impact on reservation wage expectations. Compared to unemployed women, unemployed men have a higher reservation wage expectation. As individuals' views on their roles and responsibilities are influenced by societal norms and expectations, as historically, men have often been associated with being the primary breadwinners of the family (Walker, 2003), which leads to higher wage expectations, and women have different preferences and opportunity cost of work than men. Indeed, there is considerable empirical evidence, such as Florez, Posada, Melo-Becerra, 2021; Istekli and Senturk, 2016; Prasad, 2000; Haurin and Sridhar, 2003; and Brown, Roberts and Taylor, 2011, supporting the findings of this study. When explaining the results that are obtained for age, age makes a significant impact on reservation wage expectation as, holding other variables constant, the age of unemployed persons increases by one year, and the reservation wage decreases by 2.27 per cent. By considering the existing literature, Florez, Posada & Melo-Becerra (2021), Malk (2014), Axelrad, Lusk and Malul, (2017) and Vasilescu and Begu (2018) also revealed the same results, which is the positive impact of age. If the age of an unemployed male increases by one year, then the reservation wage expectation is also increased, making a significant impact on men's reservation wages. This means that older unemployed men are more likely to expect a higher reservation wage, while older unemployed women are more likely to expect a lower reservation wage. As they get older, male individuals may have more financial responsibilities, such as supporting a family or saving for retirement, which leads to a higher reservation wage. Medium-aged workers who are more attached to the labour market will set higher reservation wages than younger groups that are weakly attached to the labour force and have not yet decided on their career path. On the other hand, with an increase in the age of an unemployed female by one year, the reservation wage decreases statistically insignificantly. Coefficients of age squared indicate that reservation wage expectations decrease with age, in line with the findings of Axelrad, Lusk and Malul (2017); and Malk (2014). Concerning the base categories, being a non-Sinhalese unemployed person has a negative and significant impact on reservation wage expectations. This finding is also confirmed by the findings of Walker (2003). Non-Sinhalese have a lower likelihood of expecting low reservation wages compared to Sinhalese, as the majority of them work in estates,

have limited access to influential networks, speak a fluent language that limits their access to certain job opportunities, and lack the financial, and human and social resources needed. If being a non-Sinhalese unemployed male and being a non-Sinhalese unemployed female increases by one person, the reservation wage expectations decrease. The negative effect of being a non-Sinhalese female is larger than that of being a non-Sinhalese male since non-Sinhalese females from marginalized communities have limited access to education and skills training, language barriers, societal norms and family prioritization compared to non-Sinhalese males.

Household factors on reservation wage expectations between unemployed men and women in Sri Lanka

An increase in the number of children of unemployed people tends to have a negative and significant impact on reservation wage expectations. In terms of unemployed men and women, if the number of children increases by one child, the reservation wage increases by 3.9 per cent. For men, this is not significant, while if the number of children increases by one child, it significantly decreases the reservation wage by 8.5 per cent for unemployed women. However, Florenz, Posada and Melo-Becerra (2021) revealed that in the presence of children, the reservation wage of both women and men declines, with the highest reduction in the women's reservation wage. The presence of children may increase the opportunity cost of accepting a job for women because women are more likely to be the ones taking care of the children. This implies that women with children might have more difficulty receiving job offers above their reservation wage and consequently be less likely to find employment. As women tend to have more children at home, the children narrow the reservation wage gap, which was also suggested by Brown, Robert and Taylor (2011).

Socio-economic factors on reservation wage expectations between unemployed men and women

Years of schooling have a highly positive and significant impact on reservation wage expectations for unemployed people, according to the findings of Axelrad, Lusk & Malul (2017); Istekli & Senturk (2016); Prasad (2003); Petreski & Oviedo (2019); Malk (2014); Brown, Roberts & Taylor (2011) and Vasilescu & Begu (2018). So, the increase in one year of education makes unemployed reservation wage expectations high, which implies that a person's reservation wage increases for each year of education completed (Walker, 2003). Education is often associated with the acquisition of knowledge, skills and abilities that are valuable in the labour market. As individuals gain more education, they develop specialized knowledge and skills that are in demand, which leads to higher reservation wage expectations as they have a higher market value due to their increased qualifications and expertise. If the years of schooling of both unemployed males and females increase by one year, then the reservation wage expectation is also increased, making a significant impact on the reservation wage. More educated, unemployed women's reservation wage expectations are higher than men's. According to our results, the reservation wage is positively correlated with years of schooling, confirming the predictions of the search theory. Another important factor that comes under the job search theory is

unemployment duration. Concerning the base category, if having an unemployment duration of more than one year increases by one year, it decreases the reservation wage for an unemployed person. This finding is aligned with the extensive empirical and theoretical literature that has found a negative relationship between reservation wage and unemployment duration (Axelrad, Lusk, & Malul, 2017; Malk, 2014; Petreski & Oviedo, 2019). If an unemployed male and female with more than one year's unemployment duration increases by one year, reservation wage expectations decrease. The negative effect is larger for men while insignificant for women as the downward adjustment of reservation wages in response to the duration of the unemployment spell is larger for men. However, this might also be because men tend to overestimate their chances of re-employment at the beginning of the unemployment spell and set their reservation too high, therefore, throughout unemployment, they need to lower it to a greater degree. As this study presents positive evidence of reservation wage according to the search theory, the results that are obtained for the unemployment duration are aligned with the theory. In line with the results, the empirical analysis carried out based on the theoretical model confirmed the hypothesis that extending the duration of unemployment lowers the reservation wage, according to previous research findings by Brown, Robert and Taylor (2011).

Geographical factors on reservation wage expectations between unemployed men and women

To explore the geographical differences across the country, being a non-urban unemployed person impacts negatively and significantly on the expectations of a reservation wage. The result is confirmed by the findings of Istekli & Senturk (2016); Petreski & Oviedo (2019); Haurin & Sridhar (2003). This is mainly because non-urban areas often have fewer job opportunities (Istekli & Senturk, 2016) compared to urban areas. The scarcity of jobs can result in increased competition among job seekers, leading to lower reservation wage expectations as individuals may be willing to accept lower-paying jobs for employment opportunities. Similarly, Malk (2014) revealed that the regional unemployment rate appears to have a significant negative association with the reservation wage, suggesting that unemployed people who are searching for jobs in more distressed areas in terms of unemployment take into account the local labour market conditions in setting their reservation wage, and the level of the regional average wage seems not to be taken into account in decisions about the reservation wage. Being an Unemployed person living in non-urban sectors has lower reservation wages than the urban sector. When an unemployed male and being an unemployed female living in the non-urban sector increase by one person, the reservation wage expectations decrease. The negative effect of being a non-urban male is greater than that of a female. As a result, conventional gender norms in rural areas often assign different responsibilities and expectations to men and women. In many rural communities, men are expected to be the primary breadwinners and engage in physically demanding work, whereas women may be more involved in household chores. These gender norms lead to greater pressure on rural males to find employment and support their families since males are more likely to migrate to urban

areas in search of better job opportunities, which causes lower wage expectations for non-urban males.

So, it can be concluded that all the variables are significant for unemployed men on reservation wage expectations, except the number of children, and other variables are significant for unemployed women except for unemployment duration and age. Finally, the findings demonstrate that the reservation wage expectations among unemployed men and women in Sri Lanka are significantly influenced by various demographic, household socioeconomic and regional geographical factors.

Table 2: Semi-regression models for reservation wage expectations of unemployed by gender

Model	Semi Log Model 1		Semi Log Model 2		Semi Log Model 3	
Name of the Model	**Total**		**Male**		**Female**	
Number of Observations	1567		739		828	
Variable	**Coeff:**	**P Value**	**Coeff:**	**P Value**	**Coeff:**	**P Value**
Dependent Variable Ln Reservation Wage						
Explanatory Variables						
Demographic Variables						
Gender Female(D1)	-0.287	0.000***	-	-	-	-
Age(X1)	0.012	0.088*	0.042	0.000***	-0.006	0.509
Age Square(X2)	-0.0002	0.073*	-0.0005	0.000***	-8.02e-06	0.953
Ethnicity Non-Sinhalese(D2)	-0.142	0.000***	-0.122	0.002**	-0.174	0.000***
Household Factors						
Number of Children(X3)	-0.0420	0.030**	0.039	0.139	-0.085	0.001***
Socio-economic Factors						
Years of Schooling(X4)	0.067	0.000***	0.059	0.000***	0.064	0.000***
Unemployment Duration More than 1 year(D3)	-0.063	0.002**	-0.063	0.045*	-0.040	0.136
Geographical Factors						
Residual Sector Non-Urban(D4)	-0.105	0.001***	-0.156	0.000***	-0.074	0.047*
F Value	52.88		18.14		37.36	
Probability>F	0.0000		0.0000		0.0000	

Notes:
- All numbers are rounded to three decimals.
- (D) and (X) indicates the dummy and continuous variables respectively.
- (Coeff:) and (P Value) indicate the coefficient and probability value respectively.
- Reference category for Total: Being an unemployed person who is a Sinhalese male with less than 1-year unemployment duration living in the urban sector.
- Reference category for Male: Being a male unemployed who is a Sinhalese continuing with less than 1-year unemployment duration living in the urban sector.
- Reference category for Female: Being a Female unemployed who is a Sinhalese continuing with less than 1-year unemployment duration living in the urban sector.
- ***, **, and * designate statistical significance at 1%, 5% and 10% levels respectively

Source: Author's calculations by using microdata, 2021

5. Conclusion

This study was able to pinpoint the demographic, household, socioeconomic and geographic characteristics that influence reservation wage expectations among unemployed men and women in Sri Lanka. The Sri Lanka Labor Force Survey was conducted by the Department of Census and Statistics in 2021 and served as the main source of data for this study, using a semi-log regression model for the analysis. The results revealed that gender significantly affects reservation wage expectations. Compared to unemployed men, unemployed women have lower reservation wage levels. Differing reservation wage expectations could arise due to gender differences in preferences, as one can speculate that a higher reservation wage for unemployed men could reflect their tendency to be more competitive. Older unemployed men are more likely to expect higher reservation wages, while older unemployed women are more likely to expect a lower reservation wage. Concerning the base categories, being a non-Sinhalese unemployed male has a significant positive influence, while being a female has a significant negative influence on reservation wage expectations. Increasing the years of schooling of both unemployed males and females has a positive impact on reservation wage expectations. More educated, unemployed women's reservation wage expectations are higher than men's. When being male or female unemployed for more than one year unemployment duration increases by one year, and the reservation wage expectations decrease. The negative effect is larger for men and insignificant for women. Being male or female, unemployed and living in a non-urban sector has a significant negative influence on reservation wage expectations. The findings of this study suggest that there are differences in the demographic, household, socio-economic and geographical factors that affect job expectancies between unemployed men and women in Sri Lanka. Overall, it concludes that gender differences exist in reservation wage expectations in Sri Lanka.

By identifying potential gender disparities in reservation wage expectations, policymakers can devise targeted interventions to promote equitable employment opportunities for both men and women. The researcher proposed several significant gender-specific policy recommendations. The Ministry of Skills Development and Vocational Training can implement skills development programmes to focus on enhancing employability by providing training in sectors with flexible work options or work-from-home opportunities for unemployed females with children leading to higher reservation wage expectations as they perceive greater value in their employment opportunities. The National Child Care Authority can suggest to the Government to allocate a considerable amount of funds from the annual national budget to build free childcare centres with reliable and high standards for the children of working mothers at the regional level, to help mothers with children who tend to be employed persons. By alleviating the burden of childcare responsibilities, women are more likely to seek employment and have higher wage expectations. To overcome language barriers and facilitate better wage negotiations, the Ministry of Labour in collaboration with Language and Skills Training Institutes can provide language and communication training for non-Sinhalese females to improve their fluency in the dominant language (Sinhalese or Tamil). The Ministry of Finance, in collaboration with the Ministry of Rural Development and relevant provincial and local authorities, can improve infrastructure such as roads, electricity, and internet connectivity to

attract businesses and create more job opportunities. By investing in rural development and infrastructure projects, they can stimulate economic growth in non-urban areas. The Ministry of Industry, Commerce and Entrepreneurship Development can provide financial and technical support for rural entrepreneurship to enable non-urban males to start their businesses and create employment opportunities.

In terms of the knowledge contribution that this research adds to the literature, this study is the first on this topic to be conducted in Sri Lanka. It is believed that this study will make contributions to the supply side of the workforce market, or mainly supply factors that shape reservation wages in the country. In addition, it is expected that this study will be of great use to policymakers during their efforts to develop policies for the workforce market. Even though most scholars have used semi-logistic regression analysis to identify the determinants of reservation wage expectations, hardly any studies have used separate models for unemployed by gender. Therefore, this study fulfils this methodological gap by revealing such a new methodological knowledge contribution. As this study is the first on this topic to be conducted in Sri Lanka, it uses a unique and comprehensive data set from the SLLFS 2021, which mainly focuses on the economic downturn period in Sri Lanka, and this further increases the importance of the study. It is believed that this study will make contributions to the supply side of the workforce market. It is also expected that this study will be of great use to policymakers during their efforts to develop policies for the workforce market and find solutions to the unemployment issue as one of the main macro issues in Sri Lanka with the higher gender gap.

The research was successfully and methodically carried out, utilizing secondary microdata from the 2021 Annual Labor Force Survey. Despite its success, the study has certain limitations that could be addressed in future research endeavours. By focusing on these areas in subsequent studies, scholars can enhance the depth and scope of their understanding of this field. Some critical factors influencing reservation wage expectations, such as individual preferences or negotiation skills, are not captured in the present study due to insufficient data requirements (unemployment and other social benefits, wealth, financial assets, household welfare) in the survey data set. Certain variables were not taken into account in this study. However, scholars could look into these aspects in the future using primary data and qualitative research approaches, such as a case study done by interviewing unemployed persons, to get more appropriate results.

Acknowledgement

References

Abbring, J.H., van den Berg, G.J., & van Ours, J.C. (2005). The effect of unemployment insurance sanctions on the transition rate from unemployment to employment. *Economic Journal*, 602–630.

Adamus, M., & Ballová Mikušková, E. (2021). *Appetites Grow with Age: Wage Expectations among Slovak Men and Women.* doi:https://doi.org/10.31577/ekoncas.2021.09.01

Addison, J.T., Machado, J.F., & Portugal, P. (2010). The Reservation Wage Unemployment Duration Nexus. *IZA Discussion Paper*.

Axelrad, H., Lusk, I., & Malul, M. (2017). *Reservation Wages and the Unemployment of Older Workers.* Springer Science+Business Media New York 2017.

Brown, S., & Taylor, K. (2013). *Reservation wages, expected wages and unemployment.* Department of Economics, University of Sheffield. Economics Letters.

Brown, S., Roberts, J., & Taylor, K. (2011). *The Gender Reservation Wage Gap: Evidence from British Panel Data.* Institute for the Study of Labor (IZA). IZA Discussion Papers. Retrieved from https://nbn-resolving.de/urn:nbn:de:101:1-201104113300

Cailendo, 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 and Organization.

Christensen, B. (2001). *The Determinants of Reservation Wages in Germany. Does a Motivation Gap Exist?* Kiel Institute of World Economics. Kiel Working Paper.

Department of Economics and Statistics. (2021). *Sri Lanka Labour Force Survey: Annual Report.* Colombo, Sri Lanka: DCS.

FISHE, R.H. (1982). Unemployment insurance and the reservation wage of the unemployed. *Review of Economics and Statistics*, 12-17.

Florez, A.L., Posada, E.C., & Melo-Becerra, A.L. (2021). *Estimating the reservation wage across city groups in Colombia: A stochastic frontier approach.*

Franz, W. (1980). *Federal Republic of Germany: Theory and Empirical TestsThe Reservation Wage of Unemployed Persons in the.* NBER Working Paper.

Hasan, A., & Gera, S. (1982). *Reservation Wages in Canadian Labour Markets.* Relations industrielles / Industrial Relations. doi: DOI: https://doi.org/10.7202/029233ar

Haurin, D.R., & Sridhar, K.S. (2003). *The impact of local unemployment rates on reservation wages and the duration of search for a job.* Applied Economics.

Heath, A., & Swann, T. (1999). Reservation Wages the Duration of Unemployment. *Research Discussion Paper,* 1-38.

Heltberg, R., & Vodopivec, M. (2004). *Sri Lanka: Unemployment, Job Security and Labor Market Reform.*

Hinnosaar, M. (2004). *UNEMPLOYMENT, RESERVATION WAGE, AND JOB SEARCH.* KROON & ECONOMY.

Hofler, R.A., & Murphy, K. J. (1994). Estimating Reservation Wages of Employed Workers Using a Stochastic Frontier. *Southern Economic Journal, 60(4)*, 961–976. doi:https://doi.org/10.2307/1060433

Istekli, M., & Senturk, I. (2016). Determinants of reservation wages in Turkey. *5*(2). doi:10.17261

Jones, S. (1989). Reservation Wages and the Cost of Unemployment. *56*, 225–246.

Kasper, H. (1967). *The asking price of labour and the duration of unemployment.* The Review of Economics and Statistics.

Kaufman, B. E. (1989). *The Economics of Labour Market* (3rd Edition ed.). USA: The Dryden Press.

Kiefer, N.M., & Neuman, G. (1979). An empirical job-search model, with a test of the constant reservation-wage hypothesis. *Journal of Political Economy*, 89-107.

Klasen, S., & Woolard, I. (2000). Surviving Unemployment without State Support: Unemployment and Household Formation in South Africa. *IZA Discussion Paper*.

Lancaster, T., & Chesher, A. (1983). An Econometric Analysis of Reservation Wages. *51*(6).

Malk, L. (2014). *Determinants of Reservation Wages: Empirical Evidence for Estonia.*

McCall, J.J. (1970). *Economics of information and job search.* The Quarterly Journal of Economics.

Morttesen, D.T. (1986). *Job Search and Labor Market Analysis* (Vol. 2). Handbook of Labor Economics. doi:10.1016/S1573-4463(86)02005-9

Petreski, M., & Oviedo, M.A. (2019). *Expectations Set High: Understanding Reservation Wages in North Macedonia.* doi:10.3935/rsp.v27i2.1670

Prasad. (2000). The Dynamics of Reservation Wages: Preliminary Evidence from the GSOEP. (D. &. Humblot, Ed.) *70*(1), 44-50.

Prasad (2003). *What determines the Reservation Wages of Unemployed Workers? New Evidence from German Micro Data.* Asia and Pacific Department. IMF Working Paper.

Samarakoon, S., & Mayadunne, G. (2018). An exploratory study on low labour force participation of women in Sri Lanka. *Sri Lanka Journals of Social Sciences, 41*, 137. doi:10.4038/class.v41i2.7701

Torzewska, E.C. (2023). *The gender gap in reservation wages and the choice of the education field.* Applied Economics Letters.

Vasilescua, D., & Begu, S. (2018). *Youth reservation wages in Romania: are wage expectations realistic?* National Scientific Research Institute for Labour and Social Protection, Bucharest, Romania; b.

Walker, R. (2003). "Reservation wages – measurement and determinants: Evidence from the Khayelitsha/Mitchell's Plain (KMP) Survey. *CSSR Working Paper*.