Gender Inequalities in Moldova’s Labor Market

This draft: December, 2018

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| Social Protection and Jobs Global Practice  Europe and Central Asia Region |

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Acknowledgements

This report has been prepared by Olga Kupets. It has greatly benefitted from the overall guidance and valuable suggestions from Victoria Levin and Yulia Smolyar (Task Team Leaders) and comments from external reviewers (Cem Mete, Ana Maria Munoz Boudet and Aline Coudouel).

The team is grateful to the National Bureau of Statistics of the Republic of Moldova for access to the Labor Force Survey data and helpful guidance, to Alex Svet and Stanislav Oaserele for scraping of resumes from the Moldovan job portal, and to Mykhailo Babii for assistance in preparing data with scraped resumes for the statistical analysis.

The team is also grateful to participants of the validation workshop on October 22, 2018, in Chisinau for useful comments and suggestions.

The findings, interpretations, conclusions, and recommendations expressed in this report are those of the author(s) and do not necessarily reflect the views of the World Bank Group.

List of acronyms and abbreviations

|  |  |
| --- | --- |
| EC | European Commission |
| ECA | Europe and Central Asia |
| EGGE | European Commission's Expert Group on Gender and Employment |
| EIGE | European Institute for Gender Equality |
| EU | European Union |
| ICT | Information and Communication Technology |
| ILO | International Labour Organization |
| ID | Index of Dissimilarity |
| IP | Karmel and MacLachlan Index |
| ISCO | International Standard Classification of Occupations |
| ISCED-F | International Standard Classification of Education: Fields of Education and Training |
| LFPR | Labor Force Participation Rate |
| LFS | Labor Force Survey |
| MDL | Moldovan Leu |
| NBS | National Bureau of Statistics |
| p.p. | percentage points |
| STEM | Science, Technology, Engineering, and Mathematics |
| UN | United Nations |

Executive summary

This report provides a detailed analysis of recent trends in occupational segregation and the impact of children on labor force participation, employment, and earnings of women and men in order to develop evidence-based policy solutions aimed at addressing observed gender inequalities in the Moldovan labor market. The nationally-representative individual-level Labor Force Survey (LFS) data in 2006-2016 are used to explore gender inequalities in the labor market. In addition, information reported in job seeker profiles, scraped from one of the largest online job portals in Moldova in June 2018, is used to shed more light on gender differences in labor market aspirations and expectations among those seeking jobs through online resources.

The key findings that emerge from the data analysis can be summarized as follows:

1. **The gender gap in labor force participation and employment rates in Moldova is the lowest in the ECA region but it is mainly achieved due to very low labor market engagement of both men and women**. To reverse a negative long-term trend of shrinking labor force in Moldova, which is caused by a population decline and low participation rates, it is necessary to increase labor force participation rates of Moldovan men and women in all age groups. Drawing on studies on the relationship between labor market status of women and fertility in European countries and Russia, encouraging labor force participation of women should be also seen as a complementary policy to tackle low fertility rates in Moldova, given a simultaneous progress in policies aimed at developing childcare facilities and at securing employment and decent income.
2. **Despite some signs of declining segregation during 2014-2016, the Moldovan occupational structure of employment remains quite segregated by gender**. As of 2016, about 40 percent of employed women (or men) would need to shift into a new occupation to eliminate occupational segregation by gender. And the necessary reshuffling of female and male employees across occupations for the occupational distribution of men and women to be equal is even higher (over 60 percent). Women disproportionately work in people-oriented occupations that emphasize interaction with clients, non-manual skills or low physical effort (teachers and health care workers, secretaries and other clerical workers, cleaners and food preparation assistants). Men disproportionately work in machine- or object-oriented occupations that emphasize either manual skills (craft occupations in manufacturing and construction, drivers, skilled forestry, fishery and hunting workers), high-level non-manual skills (e.g. STEM occupations including ICT, science and engineering professionals) or physical strength (protective services workers, commissioned armed forces officers).
3. **Individuals with tertiary education, workers in formal employment, and public sector employees are subject to substantially higher occupational segregation compared to their counterparts**. Occupational segregation of higher educated workers is closely linked with apparent gender segregation in fields of study, which is then supported by the occupational gender divide in the public and formal sectors.
4. **Occupational segregation among job seekers posting their profile on online job portal is less pronounced than among the employed population**. This is mainly because traditional sectors with a large share of female- or male-dominated occupations (e.g. industry and construction, public administration, education and health care) are underrepresented among job candidates who use online resources for their job search. Still, women strongly dominate among individuals seeking clerical and freelance jobs, and men prevail among candidates willing to work in managerial positions and in blue-collar occupations (especially drivers).
5. **Mothers of children under 5 years, especially of infants (0-2 years), have a significant labor force participation penalty as opposed to mothers of older children, nonmothers, and men**. If employed, mothers of infants are more likely to work informally, mainly as unpaid family workers in rural areas, and with shorter hours per week. Having two or more children of pre-school age (from 0 to 6 years) substantially decreases the probability of female labor force participation and employment.
6. **Mothers of school-age children tend to participate in the labor force and work almost on par with men**. However, female employees having 1 or 2 children aged below 15 years face a substantial motherhood wage penalty (up to 10 percent), probably because they prefer more family-friendly jobs which on average pay less per hour.
7. **One of the most disadvantaged groups in the Moldovan labor market is parents of three and more children under 15 years**. Women are much more likely to stay out of the labor force, but if they do decide to supply labor, they are very likely to work informally (as own-account or unpaid family workers, but also as informal employees) and work fewer hours than nonmothers and mothers of one-two children. Specific features of working parents of three and more children are that they predominantly live in rural areas and have a low level of education and skills.
8. **The gender pay gap analyzed among salaried and wage workers** who reported their wage and weekly working hours **decreased between 2010 and 2016**: from 13.8 to 12.6 percent in monthly net wage and from 6.6. to 3.8 percent in hourly net wage. The decomposition of the gender pay gap in hourly earnings into the explained and unexplained parts finds the negative explained part in 2010 and 2016 suggesting that characteristics of female employees are on average more remunerative than those of men. Education, age, economic sector, and part-time employment made a negative contribution to the gender pay gap in 2016, whereas the number of children did not have a significant effect.
9. **The explained part in the gender pay gap is positively driven only by the firm size, ownership (public or non-public) and type of employment (informal or formal)**. Surprisingly, occupation, defined at a 1-digit ISCO level, does not contribute to a gender pay gap in hourly earnings. Thus, the impact of segregation of female and male employees on the pay gap comes not through occupation per se but via the women’s preference towards public sector jobs. A higher proportion of men working in the private sector where earnings per hour are higher on average than in the public sector may explain the existing pay gap in Moldova. Yet, a large proportion of the gap remains unexplained, either due to important omitted variables or due to violation of the principle “equal pay for equal work”.
10. **Analysis of salary expectations reported by job seekers who post their resume on the online job portal shows that women expect on average over 17 percent lower wages than men**. Work experience and current employment status together with the desired type of job, availability of job candidates for business trips, and their readiness to relocate are the main factors which explain variation in salaries expected by male and female job seekers. Work experience, the desired type of job and potential mobility of job candidates are also the major contributors to the gender gap in expected salary. Hence, female job candidates who have on average shorter work experience, are more willing to get a flexible work arrangement, and are less ready to travel tend to understate their salary expectations compared to men in order to increase their chances of getting a job with desired characteristics.

Based on the key findings and international literature, the report suggests the following policy measures:

* **Improve access to and quality of childcare services and after-school** **activities.** The greater availability of affordable and high-quality childcare services for children of pre-school age (from 0 to 6 years) and extracurricular activities for school-age children can improve female participation in the labor force. It can also reduce the selection of working mothers into lower-paid jobs that allow time flexibility and shorter working hours. Therefore, it is an effective measure to reduce the motherhood penalty in labor force participation, quality of employment, and earnings.
* **Reduce duration of paid maternity and parental leave.** Although the availability of paid maternity and parental leave improves female attachment to the labor market, extended periods of leave may undermine female labor force participation and opportunities for women’s career advancement and earnings progression. They may also result in occupational segregation, as women tend to choose occupations with more generic and easily transferable skills that do not deteriorate during long periods of leave. Taking into account a non-linear relationship between the length of leave and female employment, a more detailed analysis, including the funding sources of the benefit and linking changes in the duration of leave with the availability of childcare services, is important to determine the optimal length of leave.
* **Introduce a father’s quota** **for parental leave and counteract traditional gender patterns and gender roles**. The initiative that a certain part of the parental leave period can only be taken by the father is likely to help foster a more equitable division of childrearing responsibilities in the family and therefore tackle gender inequalities in the labor market, which are particularly pronounced among parents of infants. Moldova has shown some progress towards eliminating inequalities between fathers and mothers of newborns by introducing paternity leave of up to 14 days (Law № 71) in April 2016. It should also consider introduction of a father’s quota for parental leave, which is the principle that a certain part of the parental leave period can only be taken by the father. However, this policy is not likely to be effective if social norms and stereotypes about gender roles are not reshaped.
* **Subsidize training of women after parental leave.** Long periods of parental leave might cause skills of women to deteriorate. To tackle discrimination of young women in hiring, promotion, and earnings related to the skills issue and smooth the transition of mothers from inactivity to employment, it is important to support employers in providing firm-specific training to women who return to their work after parental leave. Government-subsidized training (e.g. provision of training vouchers) is best targeted at mothers with multiple challenges such as outdated skills, previous experience of long-term unemployment, single-parent responsibilities, or low household income.
* **Revise the list of jobs prohibited for women**. Numerous restrictions on the type of jobs and working hours that can be performed by women limit the range of jobs that women can hold and lead to educational and occupational segregation, with confinement of women to lower-paid activities.
* **Provide timely and relevant gender‐specific information on career paths and average earnings in different occupations and sectors**. The provision of gender‐specific information at younger ages on returns to education and occupational wage differentials has the potential to change occupational aspirations of girls and reduce the gender labor market disparities in the future. Hence, the objective of the newly created Labor Market Observatory (LMO) is to not only to identify and analyze labor market trends and challenges overall, but also provide gender-disaggregated statistics and its analysis.
* **Facilitate part-time and flexible forms of employment and promote work-life balance policies and equality at the workplace**. Part-time jobs or flexible working arrangements that are very limited in the Moldovan labor market need to be promoted through the changes in the labor law in order to encourage more women to participate in the labor market despite their family obligations. Another important policy area is to regulate provision of sick leaves (and other fringe benefits) in the case of part-time employment that are especially important for women with small children. The government can also promote gender equality through effective public-private partnerships with leading companies that enforce gender neutrality in advertising of jobs and hiring and promote gender equality at work.

These measures are aimed at encouraging more women to participate in the labor force, improving employment opportunities for women with family obligations, and reducing occupational segregation and gender-based discrimination in the labor market. Encouraging more women to work in male-dominated occupations, which are concentrated in the non-public formal sector and larger firms, can also contribute to greater gender pay equality. However, in view of the aggregate employment decline and very limited availability of decent jobs in Moldova, the effectiveness of these supply-side measures in improving labor market outcomes is limited if they are not accompanied by policies to support creation of more and higher-productivity private sector jobs.

1. Introduction

**Moldova has the lowest gender gap in labor force participation (6.3 percentage points in 2017) compared to other ECA countries**, where the regional average is 20.7 percentage points (Figure 1). However, the labor force participation and employment rates in Moldova are also well below than in neighboring countries and the ECA regional average: only 42.4 percent of the total population over 15 years of age participated in the labor force in 2017, and only 40.6 percent were employed (Figure 1). If the age limits are reduced to the official working age in Moldova (15-56 years for women, and 15-61 years for men in 2016), the labor force participation and employment rates based on the LFS 2016 data increase from 42.6 and 40.9 percent to 49.6 and 46.9 percent, respectively. If international migrants are excluded from inactive and total population,[[1]](#footnote-1) the rates further increase to 57.2 and 54.6 percent, respectively. Despite these statistical adjustments, the labor force participation and employment rates in Moldova are still lower than in Central Asian transition countries and more developed European economies.

Figure 1: Labor force participation rate and gender gap in Moldova and ECA countries, 2017



Source: World Development Indicators, series: Labor force participation rate, total/male/female (% of total/male/female population ages 15+) (modeled ILO estimate).

Note: The gender gap in LFPR is the male LFPR minus the female LFPR. Countries are sorted by gender gap.

**A worrisome development is that female labor force participation and employment rates declined faster than those for males since 2000** (Figure 2, Panel A). This has brought about a substantial increase in the gender gap in key labor market indicators (Figure 2, Panel B).

Figure 2: Labor force participation and employment rates by gender, 2000-2017

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| --- | --- |
| A) Labor force participation and employment rates (% of population aged 15+) | B) Gender gap (percentage points) |
|  |  |

Source: World Development Indicators, series: Labor force participation rate, male/female (% of male/female population ages 15+) (modeled ILO estimate); Employment to population ratio, male/female (% of male/female population ages 15+) (modeled ILO estimate).

Note: The gender gap is the male rate minus the female rate.

**The unemployment rate is low in Moldova among both women and men** (3.3 and 4.8 percent in 2017, respectively). But the low unemployment rate masks a depressed labor market, with scarce job opportunities a growing share of jobs is in less-productive firms (World Bank, 2016b, c). As a consequence, many workers became discouraged and withdrew from the local labor market. Many men, especially from prime-age groups, work abroad but are classified by the NBS as inactive , or out of the Moldovan labor force. Family obligations including taking care of children and other family members are the main reasons for inactivity of women aged 25-44 years (Figure 3).

Figure 3: Inactive population by sex, age and main reason, 2017

Source: NBS, series: Inactive population aged 15 years and over by Main reason for not working, Years, Sex, Area, Age groups and Level of education.

**If labor force participation rates of men and women decrease further in all 5-year age groups, as projected by the ILO, the labor force in Moldova is expected to shrink by over 18 percent between 2016 and 2030** (Figure 4, Scenario 1).[[2]](#footnote-2) Convergence of age-specific participation rates of Moldovan women to those of men by 2030 is likely to have only a minor impact on the projected loss because Moldovan men have very low participation rates compared to developed countries, and because in five out of 11 age groups (35-39, 40-44, 45-49, 50-54, and 65+) males actually have lower participation rates than females (Figure 4, Scenario 2). If participation rates for all age-gender groups in Moldova converge by 2030 to the average projected participation rates of EU-28 countries (Scenario 3) or to projected participation rates in Sweden – one of the top performers in terms of female participation rates and gender equality among developed countries – there is a potential to reverse a long-term trend of shrinking labor force in Moldova (Figure 4, Scenarios 3 and 4). But this requires a huge increase in labor force participation rates of Moldovan men and women, by 0.6-2.8 percentage points annually from 2017 to 2030 for males and by 0.8-2.4 percentage points for females, depending on the age group (if convergence to the average EU-28 levels is assumed).

Figure 4: Labor force projections (thousand people aged 15 years and above), 2000-2030

Source: Author’s calculations based on population projections from UN (2017) – medium variant, including Transnistria – and labor force participation rates for males and females for ten five-year age groups and 65+ age groups from ILO (2017).

Note: The size of the labor force is estimated by interacting the age-gender specific labor force participation rates with the population data from the UN (by the same age groups and gender) and then summing up the data for all age and gender groups.

Scenario 1 uses the ILO labor force participation rates (estimates in 2000-2016 and projections in 2017-2030). Scenario 2 keeps the ILO labor force participation rates for males (in five out of 11 age groups participations rates among males are lower than among females in 2030) and assumes a linear convergence of participation rates for females to those of males between 2016 and 2030.

Scenario 3 assumes that participation rates for all age-gender groups in Moldova will converge by 2030 to the average projected participation rates of EU-28 countries (with a necessary annual increase in participation rates by 0.6-2.8 p.p. for males and 0.8-2.4 p.p. for females, depending on the age group).

Scenario 4 assumes that participation rates for all age-gender groups in Moldova will converge by 2030 to the projected participation rates in Sweden (with a necessary annual increase in participation rates by 1.2-3.5 p.p. for males and 1.9-3.7 p.p. for females, depending on the age group).

**There is a hot debate in Moldova and other countries facing low fertility rates and declining population whether public policies and programs should be directed on encouraging female labor force participation or on support of families in having more children**. Recent studies in developed countries find a positive link between fertility and female employment, suggesting that employment of women is likely to facilitate the decision to start or enlarge a family if parents do not face barriers in combining work and family life (Greulich et al., 2017). According to a cross-country study in EU countries (Greulich et al., 2017), employed women aged 17-45 years who already have one child are more likely to have a second childbirth than women not in employment, and this association is stronger for highly-educated women and for women with partners who are themselves in employment. An important finding is that the probability of having a second child is reinforced in countries with high childcare coverage, whereas other family policy instruments – such as length of parental leave schemes and total cash transfers to families – do not have a significant effect on fertility. According to a similar study in Russia by Elizarov and Levin (2015), stable employment of women is among the main determinants of the propensity to have a second child. Hence, encouraging labor force participation of women should be seen as a complementary policy to tackle low fertility rates in Moldova, given simultaneous progress in policies aimed at developing childcare facilities and at securing equality in employment and wage income.

**Moldova faces increasing level of gender inequality on many indicators due to a lack of effective implementation and enforcement of existing legislation and due to social norms, perpetuated through the education system, media, and labor markets** (World Bank, 2014a, 2017). The 2017 Moldova Country Gender Action Plan (World Bank, 2017) defines five priority gender challenges for Moldova: occupational segregation and earnings gap; discrepancies in labor force participation; entrepreneurship and livelihoods; voice, agency, and gender-based violence; healthy lifestyles and behaviors.

**The objective of this report is to address the knowledge gaps for the first and second priority challenges** **and thereby contribute to the evidence-based policymaking on the labor supply and gender equality agendas**. Specifically, the report explores the key labor market gender challenges such as occupational segregation (looking at segregation of current occupations and educational specializations) and the parenthood penalty (looking at differences in labor force participation, employment, and earnings for women and men with no children, 1 child, 2 or more children), using the nationally-representative individual-level Labor Force Survey (LFS) data in 2006-2016. The novelty of this study is that an LFS-based analysis that applies a conventional methodology of occupational segregation indicators and earnings regressions and decompositions in chapters 2 through 4 is complemented by an original analysis of job seeker profiles in chapter 5, scraped from the largest online job portal in Moldova in June 2018, to examine the role of gender in labor market aspirations and expectations of young job seekers.

Even though the third priority challenge (entrepreneurship) is also linked to the labor market and there are substantial disparities in the success rate of setting up a business as well as in the size and nature of businesses that Moldovan women and men lead (World Bank, 2014a), this report does not address the issue of entrepreneurship in detail due to LFS data containing only a very small sample of non-agricultural employers (either women or men) and very few relevant variables on this topic. Another limitation of this report is that it does not study the impact of international labor migration and remittances on labor market outcomes of remaining household members and other social and economic indicators in Moldova. Besedina and Levin (2016) and Stratan et al. (2013) find that migration and remittances are associated with lower labor force participation rates of remaining household members (who are more likely to be female, compared to households without migrants) and higher incidence of part-time employment as remittance recipients rationally reduce their labor effort. To answer the question whether migration and remittances contribute to gender inequalities in the Moldovan labor market, including gender gaps in labor force participation, employment and earnings, other data and further research are needed. Finally, the report contributes to the literature about the supply side of the Moldovan labor market whereas it draws on the findings of other studies on the labor demand developments. According to World Bank (2016b, c), rapid economic growth in recent years in Moldova was not accompanied by job creation, net job losses have taken place in most sectors and across regions, and only some categories of workers (predominantly skilled older male workers in urban areas) were able to benefit from access to higher-paying jobs in productivity-increasing firms.

The report is intended for technically-inclined readers from government agencies, think tanks and researchers active in gender and labor market domains. The Executive summary summarizes the findings of the analysis in non-technical language for the general public and policy makers. Annex I provides technical details on which methodology and data are used for the analysis.

2. Gender segregation of current occupations and educational specializations[[3]](#footnote-3)

## 2.1. Trends in the gender composition of occupations

**Comparison of female shares in 3-digit occupations suggests that there has been remarkably little change in the gender composition of the most common occupations for women and men during the last decade** (Table 1). Women traditionally prevail in childcare and primary education (Child care workers and teachers' aides, Primary school and early childhood teachers), Libraries, archives, museums and other cultural activities (Librarians, archivists and curators), mid-level health care and social work (Personal care workers in health services, Nursing and midwifery associate professionals), clerical work (Secretaries, Other clerical support workers), cleaning and food preparation (Domestic, hotel and office cleaners and helpers, Food preparation assistants). It is important to note that almost all pre-primary and primary school teachers in Moldova are women.[[4]](#footnote-4) The prevalence of female teachers at the early stages of education can reinforce gender stereotypes (Osaďan, 2012) and contribute to the choice of teaching profession only by girls. The female share among Legal, social and religious associate professionals has increased significantly between 2006 and 2016, but this can be attributed not only to an increase in the share of women with a college degree in social sciences and law but also due to reclassification error from ISCO-88 in 2013 to ISCO-08 in 2014.

**On the other hand, few women are employed in traditionally male occupations in manufacturing, construction, transport and protective services**, such as Metal, machinery and related trades workers, building frame and related trades workers, Wood treaters, cabinet-makers and related trades workers, Drivers and Mobile plant operators, Transport and storage laborers, Protective services workers and Armed forces occupations (Table 1). A very small share of women in these and many other occupations can be partly attributed to legal restrictions on women’s employment in a long list of jobs in mining, metal processing, electrotechnical, chemical and some other industries in manufacturing, construction, and transport as specified in the Moldova Government’s Decision No. 264 of 6 October 1993.[[5]](#footnote-5)

**Employment in Science, Technology, Engineering, and Mathematics (STEM) occupations is also male- dominated**, and no significant improvement has occurred since 2006 in any 2-digit STEM occupation except for the group 31 “Science and engineering associate professionals” (Figure 5). Women accounted for just 14.6 percent of Information and communications technology (ICT) professionals and for 35.6 percent of Science and engineering professionals in 2016. Comparison of available statistics in Moldova, Ukraine, and EU countries (Table A-1) shows that female shares in STEM occupations were quite similar in Moldova and Ukraine, and both were substantially higher than the average in EU-26 (excluding Malta and Croatia).

Table 1: Top ten 3-digit occupations with the highest and lowest female shares as of 2016 (%), 2006-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ISCO-08 code** | **Occupation** | **Female share (%)** | | | | | | | | | | | **Share of occupation in total employment in 2016 (%)** | |
| **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **Women** | **Men** |
| 531 | Child care workers and teachers' aides | 98.5 | 100.0 | 99.6 | 99.6 | 100.0 | 99.5 | 100.0 | 99.1 | 100.0 | 100.0 | 100.0 | 1.99 | 0 |
| 262 | Librarians, archivists and curators | 98.7 | 98.4 | 100.0 | 94.8 | 93.3 | 96.4 | 80.2 | 80.7 | 97.2 | 100.0 | 100.0 | 0.45 | 0 |
| 412 | Secretaries (general) | 92.7 | 93.1 | 96.8 | 98.0 | 99.4 | 97.0 | 98.6 | 100.0 | 97.8 | 98.2 | 100.0 | 0.44 | 0 |
| 234 | Primary school and early childhood teachers | 92.7 | 93.5 | 91.4 | 91.8 | 91.6 | 92.3 | 94.1 | 93.1 | 96.9 | 96.8 | 98.6 | 3.2 | 0.05 |
| 532 | Personal care workers in health services | 97.3 | 100.0 | 98.1 | 97.8 | 97.1 | 98.2 | 97.3 | 97.5 | 97.9 | 95.9 | 98.0 | 1.86 | 0.04 |
| 911 | Domestic, hotel and office cleaners and helpers | 97.8 | 95.7 | 94.3 | 95.8 | 96.1 | 97.5 | 97.6 | 96.6 | 97.4 | 98.9 | 97.6 | 4.23 | 0.1 |
| 322 | Nursing and midwifery associate professionals | 99.3 | 98.7 | 98.8 | 98.7 | 99.0 | 99.1 | 99.2 | 99.8 | 100.0 | 99.0 | 97.6 | 3.48 | 0.09 |
| 341 | Legal, social and religious associate professionals | 56.9 | 66.4 | 64.2 | 64.5 | 57.4 | 57.0 | 56.9 | 54.2 | 93.6 | 97.8 | 97.2 | 0.45 | 0.01 |
| 941 | Food preparation assistants | – | – | – | – | – | – | – | – | 98.3 | 95.5 | 96.9 | 0.42 | 0.01 |
| 441 | Other clerical support workers | 94.7 | 93.1 | 97.7 | 96.9 | 90.7 | 90.5 | 91.8 | 91.8 | 100.0 | 94.4 | 95.8 | 0.87 | 0.04 |
| 11 | Armed forces occupations | 1.3 | 1.6 | 7.3 | 2.6 | 0.0 | 2.7 | 5.5 | 5.2 | 6.7 | 2.2 | 4.5 | 0.04 | 0.89 |
| 752 | Wood treaters, cabinet-makers and related trades workers | 3.3 | 10.3 | 13.1 | 21.1 | 14.3 | 12.7 | 14.9 | 24.5 | 11.6 | 9.7 | 4.3 | 0.04 | 0.9 |
| 541 | Protective services workers | 5.5 | 2.8 | 3.7 | 7.3 | 9.9 | 5.3 | 7.1 | 6.9 | 7.2 | 5.1 | 3.1 | 0.06 | 1.85 |
| 933 | Transport and storage laborers | 2.5 | 3.1 | 2.4 | 4.4 | 3.6 | 5.0 | 3.4 | 1.3 | 3.8 | 3.5 | 2.4 | 0.04 | 1.8 |
| 721 | Sheet and structural metal workers, molders and welders, and related workers | 3.4 | 1.2 | 1.1 | 1.5 | 1.9 | 0.4 | 0.3 | 0.0 | 0.0 | 2.6 | 2.1 | 0.02 | 1.01 |
| 834 | Mobile plant operators | 0.3 | 0.9 | 0.6 | 0.0 | 0.4 | 0.6 | 0.3 | 0.4 | 1.2 | 3.2 | 1.4 | 0.04 | 2.61 |
| 833 | Heavy truck and bus drivers | 2.5 | 0.8 | 1.4 | 1.0 | 0.2 | 1.3 | 1.6 | 1.7 | 0.0 | 1.5 | 1.1 | 0.05 | 4.15 |
| 711 | Building frame and related trades workers | 2.5 | 1.7 | 1.4 | 1.0 | 0.3 | 1.8 | 1.6 | 1.1 | 0.3 | 3.5 | 0.4 | 0.01 | 2.23 |
| 832 | Car, van and motorcycle drivers | 0.7 | 0.3 | 0.1 | 0.0 | 0.2 | 0.4 | 0.0 | 0.0 | 0.6 | 0.8 | 0.0 | 0 | 3.83 |
| 723 | Machinery mechanics and repairers | 0.4 | 2.0 | 2.6 | 0.4 | 0.5 | 0.8 | 1.2 | 0.8 | 0.7 | 0.0 | 0.0 | 0 | 2.5 |

Source: LFS individual-level data.

Note: This analysis excludes occupations with less than 20 observations in 2016 to avoid small cell size problems.

**Gender segregation exists even within 2-digit STEM occupations**. For example, science and engineering female professionals are more concentrated in Cartographers and Surveyors (2165), Biologists, botanists, zoologists and related professionals (2131), Product and garment designers (2163), and Chemical engineers (2145). Their male colleagues more often work as Electrical engineers (2151), Farming, forestry and fisheries advisers (2132), Civil engineers (2142), and other science and engineering professionals. Similarly, ICT female professionals prevail in Database designers and administrators (2521) while male professionals dominate in the other ICT occupations.

Figure 5: Female share in STEM 2-digit occupations (%), 2006-2016



Yet, **there are many occupations that have seen considerable change in their gender composition during 2006-2016** (Figure 6). Due to an increase in female share, some occupations that were male-dominated in 2006 have become more integrated in 2016, e.g. Managing directors and chief executives (a change in female share from 14.1 percent in 2006 to 55.8 percent in 2016), Retail and wholesale trade managers (33.6 and 45.2 percent, respectively), or even female-dominated, e.g. Professional services managers (36 and 69 percent, respectively).

Figure 6: Occupations with the largest changes in female share from 2006 to 2016

A) Occupations with the largest growth in female share from 2006 to 2016

B) Occupations with the largest decline in female share from 2006 to 2016

Note: The figure shows all 3-digit occupations with the change in female share of over 10 percentage points in absolute value from 2006 to 2016. It excludes occupations with less than 20 observations in 2016.

**Some occupations that were relatively gender-balanced in 2006 have become more female-dominated in 2016**, e.g. Business services and administration managers (55.4 and 79.1 percent, respectively) and Administration professionals (55.9 and 75.6 percent, respectively). An increase in the female share in highly-skilled managerial positions signals the opening of previously male-dominated positions to women, probably due to a growing number of small businesses, and also serves as encouragement for other women to seek employment in the top occupational group. Many other occupations have remained male-dominated despite a considerable increase in female share since 2006 (Figure 6, panel A).

**Changes towards more gender-balanced composition of occupations are also observed in previously female-dominated occupations due to a decrease in female share over 2006-2016**, e.g. vocational education teachers, other teaching professionals, medical and pharmaceutical technicians, other health associate professionals, client information workers, and waiters and bartenders (Figure 6, panel B). Decreasing female share in vocational education might signal that women were crowded out of the sector of vocational education which experienced net job losses in recent years. Yet, a relative increase in the share of male teachers in vocational education might have an important long-term effect of breaking down gender stereotypes among students and decreasing occupational segregation in the future.

**Occupational segregation in Moldova is not directly linked with the differences in the level of skills between men and women**. When we split all 2-digit ISCO occupations into female-dominated, mixed, and male-dominated occupations using cut-offs of 40 and 60 percent of female share in employment and use the ILO four-point skill-level scale corresponding to ISCO-based 1-digit occupational groups (ILO, 2012),[[6]](#footnote-6) we can observe that female-dominated occupations, as well as male-dominated ones, belong to the different groups of occupations in terms of the skill level (Table A-2).

**The proportion of men working in female-dominated occupations is larger than the proportion of women working in male-dominated occupations** (Table 2). Besides, the share of men in female-dominated occupations increased whereas the share of women in male-dominated occupations, on the contrary, decreased during 2014-2016. One of the possible interpretations of this finding is that entry of female workers to male-dominated occupations has become more limited compared to men's entry to female-dominated occupations. At the same time, a decrease in the shares of men in male-dominated occupations and of women in female-dominated occupations can be interpreted as a positive development towards higher proportion of both men and women employed in mixed occupations, and therefore, a more gender-balanced composition of employment in Moldova. However, a closer look at mixed occupations in Table A-2 reveals that this gender-balanced composition is mainly due to a widespread employment of both women and men in occupations (Market-oriented skilled agricultural workers, Subsistence farmers, fishers, hunters and gatherers and Agricultural, forestry and fishery laborers).

Table 2: Employment in female/male-dominated and mixed occupations (% of total employment), 2014-2016

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Based on 2-digit ISCO | | | | Based on 3-digit ISCO | | | |
|  | Female-dominated | Mixed | Male-dominated | Total | Female-dominated | Mixed | Male-dominated | Total |
| 2014 |  |  |  |  |  |  |  |  |
| Men | 11.6 | 41.2 | 47.2 | 100 | 9.9 | 35.4 | 54.7 | 100 |
| Women | 54.9 | 37.1 | 8.0 | 100 | 58.1 | 32.1 | 9.8 | 100 |
| Total | 33.1 | 39.2 | 27.7 | 100 | 33.8 | 33.8 | 32.4 | 100 |
| 2015 |  |  |  |  |  |  |  |  |
| Men | 12.8 | 41.8 | 45.4 | 100 | 10.2 | 36.8 | 53.0 | 100 |
| Women | 54.2 | 37.8 | 8.0 | 100 | 57.2 | 33.6 | 9.3 | 100 |
| Total | 33.6 | 39.8 | 26.6 | 100 | 33.8 | 35.2 | 31.1 | 100 |
| 2016 |  |  |  |  |  |  |  |  |
| Men | 13.6 | 42.4 | 44.0 | 100 | 11.3 | 37.4 | 51.2 | 100 |
| Women | 52.0 | 40.7 | 7.3 | 100 | 55.5 | 35.3 | 9.2 | 100 |
| Total | 33.0 | 41.5 | 25.5 | 100 | 33.6 | 36.4 | 30.1 | 100 |

Note: An occupation is defined as female-dominated if the average share of women employed in this occupation in 2014-2016 was 60 percent or more; an occupation is defined as male-dominated if the average share of women employed in this occupation in 2014-2016 was 40 percent or less; an occupation with female share between 40 and 60 percent is classified as mixed. Classification of 2-digit ISCO occupations into female-/male-dominated and mixed occupations is provided in Table A-2. The analysis here is limited to 2014-2016 to avoid the possible reclassification error caused by a switch of NBS to ISCO-2008.

**Moldova compares favorably to many European countries in terms of the share of women working in female-dominated occupations and the share of men working in male-dominated occupations, mainly due to a high share of Moldovan women and men employed in mixed occupations** (Figure 7)**.** Although the proportion of Moldovan women working in male-dominated occupations is significantly smaller than in developed EU countries, it is at roughly similar level as in post-socialist countries including Lithuania, Estonia, Hungary, and the Slovak Republic (Figure 7, Panel A).

Figure 7: Employment in female/male-dominated and mixed occupations in Moldova (2016) and EU countries (2010)

|  |  |
| --- | --- |
| A) Women | B) Men |
|  |  |

*Sources: Moldova – author’s calculations based on the individual-level LFS-2016 data (Table 2), EU countries – Burchell et al. (2014), Figures 1 and 2.*

**The bias of female part-time wage and salaried workers towards female-dominated occupations in Moldova** is similar to that found in European countries (Burchell et al., 2014): women and men working-part-time are more likely to work in female-dominated occupations and less likely to work in male-dominated occupations compared to full-time employees (Figure 8). But it should be taken into account that Moldova lags behind European countries in the incidence of part-time employment: according to the LFS data, only 4.6 percent of female employees and 2.9 percent of male employees reported working part-time in 2016 in Moldova. For comparison, the share of part-time workers in EU countries is 31 percent for women and 8 percent for men (EC, 2018).

Figure 8: Employment of full-time and part-time employees by gender and type of occupation (%), 2016

Note: An occupation is defined as female-dominated if the average share of women employed in this occupation in 2014-2016 was 60 percent or more; an occupation is defined as male-dominated if the average share of women employed in this occupation in 2014-2016 was 40 percent or less; an occupation with female share between 40 and 60 percent is classified as mixed. Classification here is based on 2-digit occupations.

**Like in many other countries in Eastern European and Former Soviet Union,** **part-time employment opportunities were scarce in Moldova, and therefore many women chose to work in health, education, and retail trade where they could have shorter and more flexible working hours** (Brainerd, 2000). Analysis of 2-digit occupations held by Moldovan female employees working full- and part-time in 2016 reveals that professions in education and health are popular not only among full-time female employees who might seek flexible or shorter working hours[[7]](#footnote-7) but also among women who worked part-time. The most popular occupations employing together over 75 percent of all part-time female employees in 2016 are: Teaching professionals (21 percent), Cleaners and helpers (15.1 percent), Personal care workers (9.7 percent), Other clerical support workers (6.9 percent), Health associate professionals (5.3 percent), Legal, social and cultural professionals (5.1 percent), Business and administration professionals (4.9 percent), Personal service workers (4.4 percent), and Sales workers (3.7 percent). All of them can be classified as female-dominated with the female share of about 60 percent and over.

## 2.2. Trends in the index of occupational dissimilarity

According to the Duncan index of occupational dissimilarity, **about 40 percent of female (or male) workers would have to change occupations for the occupational distribution of men and women at 2-digit occupations** **to become the same** (Figure 9). As expected, the index increases with the detail of the classification of occupations adopted, i.e. when the average number of categories in 2006-2016 grows from about 35 2-digit occupations to 122 occupations at the 3-digit level. Between 2006 and 2016, the index based on 3-digit occupations increased from 0.42 to 0.46, and the index based on 2-digit occupations increased from 0.35 to 0.40. A positive trend though is a decrease in occupational segregation in recent years (2014-2016), which echoes our finding based on the analysis of men's and women's employment in female-/male-dominated and mixed occupations (Table 2).

Figure 9: Duncan index of occupational dissimilarity, 2006-2016



Note: ISCO-88 occupations are used in 2006-2013, and ISCO-08 occupations in 2014-2016 in order to minimize the effect of reclassification on the estimated index.

**Occupational segregation measured with the Duncan index is substantially lower in Moldova than in many developed and transition countries, including the average in 38 ECA countries** (Figure 10). The average ID index in EU-27 based on 3-digit ISCO occupations increased from roughly 50 in 2000 to 51 percent in 2007 (EGGE, 2009). The analysis of occupational segregation in the US using the data for 389 occupations and for workers aged 25-64 years finds that the ID fell from 0.68 in 1972 to 0.50 in 2011 (Hegewisch and Hartmann, 2014). According to the author’s calculations based on 3-digit ISCO occupations and the LFS data in Ukraine (Table A-3 and Figure 13), the index of dissimilarity increased from 0.58 in 2006 to 0.62 in 2013. Das et al. (2018) argue that relatively low occupational segregation in South Asia and Sub-Saharan Africa may be associated with the limited granularity of occupational codes within the agriculture sector. Taking into account that about 37 percent of Moldovan employed men and 28 percent of all employed women are engaged in agriculture (Table A-4), with many of them classified either as skilled agricultural and fishery workers or as labourers in agriculture (Table A-5), the same argument can be applied to explain a relatively low index of dissimilarity in Moldova.

Figure 10: Duncan index of occupational dissimilarity in Moldova and country groups



*Sources: Das et al. (2018) for country groups, author’s estimations for Moldova (based on 2-digit occupations).*

**The index of occupational dissimilarity index among employees (i.e. wage and salaried workers) is substantially larger than the similar index for the total sample of employed that includes self-employed and own-account workers** (Figure 9). According to it, 62 percent of wage and salaried female (or male) workers would have to be reallocated in 2016 in order to get identical distributions of occupations in wage employment. Roughly similar levels of occupational segregation among employees were found in Ukraine (Table A-3).

**Moldovan women and men with a college degree (post-secondary education) or university degree (tertiary education) are much more likely to work in segregated occupations than less-educated workers** (Figure 11, left panel). This finding is in sharp contrast with the finding of Hegewisch and Hartmann (2014) for the US, according to which more educated workers, with at least a four-year college degree, were more likely to work in more integrated occupations than their less educated counterparts. Taking into account that the US college degree is not the same as in Moldova, we combined college graduates with workers with secondary education and compared them to university graduates (bachelors, masters, and doctors) (Figure 11, right panel). The gap in the index of dissimilarity becomes considerably smaller but university-educated workers still experience higher occupational segregation compared to workers with a lower level of educational attainment.

Figure 11: Duncan index of occupational dissimilarity by education, 2006-2016

|  |  |
| --- | --- |
|  |  |

Note: ISCO-88 occupations are used in 2006-2013, and ISCO-08 occupations in 2014-2016.

**Moldova has a different pattern of occupational segregation between lower and higher educated workers not only compared to the US but also to its neighbor Ukraine** (Figure 12). This suggests that jobs for college and university graduates in top occupational groups, namely managers, professionals, and associate professionals, tend to be much more segregated by gender than jobs for clerks and service workers, blue-collar, and unskilled workers (assuming a match between available and required education) in Moldova. This argument is supported by a considerably larger and increasing index of dissimilarity for women and men working in the public sector and having formal employment (Figure 13).

Figure 12: Duncan index of occupational dissimilarity in Ukraine, 2006-2013



*Source: Author’s calculations based of the individual-level Ukraine LFS data.*

*Note: Based on ISCO-88 3-digit occupations. Population aged 15-70 years. 2008 is omitted because of unexplained fall in the estimated index.*

**The opposite pattern is also observed in terms of segregation in formal versus informal employment**[[8]](#footnote-8): in Ukraine, men and women working informally were much more likely to have different distributions of occupations than formally employed (Table A-3) while in Moldova informal employment seems to be associated with a lower level of occupational segregation (Figure 13, right panel).[[9]](#footnote-9) This discrepancy is probably driven by different occupational and sectoral composition of informal employment: more heterogeneous in Ukraine and less heterogeneous, predominantly concentrated in (subsistence) agriculture, in Moldova.

Figure 13: Duncan index of occupational dissimilarity by type of employment, 2006-2016

|  |  |
| --- | --- |
|  |  |

Note: ISCO-88 occupations are used in 2006-2013, and ISCO-08 occupations in 2014-2016. Information about public and non-public sector is based on the answers of employees about the ownership type of the establishment where they worked; jobs of self-employed and own account-workers are classified by us as non-public sector. Informal employment is defined by the NBS.

**New generation (born in 1980 and later) found the labor market in 2006 more segregated than the preceding generation born in the 1960-70s and even more segregated compared to matured men and women born in 1959 and before** (Figure 14). However, the gap between three generations almost disappeared by 2016 due to a slow decrease in occupational segregation among workers from new generation and an increase in segregation for preceding generations. A small decline in occupational segregation between 2006 and 2016 for younger women can be a sign of their moving out of female-dominated occupations and entering managerial positions or professional occupations that had been male-dominated in the past. But a fairly high value of the index of occupational dissimilarity in 2016 (49 percent) suggests that the Moldovan labor market remains fairly segregated for workers under 36 years. Given the observed trends in the index across education groups (Figure 11), a higher educational attainment of women compared to men in this cohort seems to contribute to higher rather lower occupational segregation.

Figure 14: Duncan index of occupational dissimilarity by cohorts, 2006-2016



Note: ISCO-88 occupations are used in 2006-2013, and ISCO-08 occupations in 2014-2016.

## 2.3. Comparison of occupational segregation in Moldova and EU countries

**The alternative measure of occupational segregation – the Karmel and MacLachlan index – is lower in Moldova (23.5 percent for aged 20-64 years) compared to the EU-28 average (24.1 percent)** and substantially lower than in high-segregation countries represented predominantly by new EU members from the post-socialist bloc (Figure 15). In all countries under study the index is far apart from its theoretical maximum of 50 percent.

Figure 15: Gender segregation in occupations in Moldova and EU countries: Karmel and MacLachlan index (%), 2016



*Sources: EU countries – EC (2018, p. 62); Moldova – author's calculations based on LFS-2016 (population aged 20-64 years), using Stata command "dicseg" for 3-digit ISCO-O8 occupations and sample weights.*

**Taking into account relatively low segregation index in Moldova along with low female employment rate, one might expect an increase in the segregation index if the measures to increase female employment are implemented without suitable policies promoting occupational desegregation**. EGGE (2009) finds a positive and significant cross-country correlation between female employment rate and the index of occupational segregation in the EU countries as well as between changes of these indicators during 1997-2007. The authors conclude that significant increases in female employment are likely to raise the level of segregation in the short and medium run, and therefore there is a trade-off in the medium term between objectives of increasing female employment and decreasing segregation.

## 2.4. Educational segregation

**Gender differences in aspirations of Moldovan youth expressed in the choice of studying in vocational schools, colleges, or universities and the preferred fields of study seem to perpetuate the existing occupational segregation in the labor market** (World Bank, 2016a). Analysis of answers about the preferred field of studies among male and female high school students has shown that young men were more interested in pursuing education in the STEM fields, services, and construction (after Social sciences, business and law), while female students were more interested in studying humanities and art, health, and education (after Social sciences, business and law).

**To shed light on the role of education in shaping occupational segregation among adult workers, we make use of information about the field of studies and its correspondence to the current job reported by employed persons in the LFS**.[[10]](#footnote-10) We limit the analysis to individuals aged 25 years and above in order to capture a sufficient number of university graduates after their entry to the labor market. The field of studies is coded in the Moldovan LFS according to the classification of occupations, so the analysis below is based on 2-digit ISCO-08 groups in 2016.

**Female workers of all ages, especially the youngest ones, outperform men in educational attainment**: employed women are more likely to have post-secondary non-tertiary (college) or tertiary (university) education, while more men have stopped at secondary vocational education (Figure 16, Panel A). As relatively more educated cohorts of women replace the earlier ones, women become more highly educated than men. And this is observed not only in employment, which is more highly selected on education for women than for men, but also in non-employed population that includes the unemployed and those outside the labor force (Figure 16, Panel B). Blau and Kahn (2017) offer several explanations for why women surpass men in education in the US, including lower non-pecuniary costs of investing in tertiary education for women and their larger response to rising returns to investment in education, a delay in marriage and childbearing triggered by the development of birth control measures, family-related income gains due to assortative mating, and changing social norms on gender-appropriate education investments.

Figure 16: Women and men by education and age (%), 2016

A) Employed individuals (25+ years)



B) Non-employed individuals (25+ years)\*



*Note: \*Non-employed individuals are either unemployed or inactive (outside the labor force), excluding international migrants.*

**The intersection of gender and age uncovers generational differences in the attitude towards the vocational education track**: the share of both men and women with secondary vocational education or post-secondary non-tertiary education decreases substantially from the cohort of 45-54 year old workers to the 25-34 year-olds (Figure 16, Panel A). These findings support conclusions from the analysis of aspirations of young people (World Bank, 2016a).

**Female adult workers differ from their male counterparts not only in terms of the level of education but also in terms of the field of studies**. According to the analysis of LFS data in 2016, women represented over two thirds of workers with a university degree in the fields related to jobs of business and administration professionals (81 percent), teaching professionals (76.3 percent), and administrative and commercial managers (66.7 percent). At the same time, they constituted less than 32 percent of workers with a STEM tertiary education level, namely 31.6 percent of Science and engineering professionals and 27.3 percent of ICT professionals (Table A-6). Over half of all employed women with tertiary education studied either education (Teaching professionals), accounting or policy administration (Business and administration professionals). In contrast, the most popular fields of studies reported by employed males with a university degree are Science and engineering professionals (predominantly Farming, forestry and fisheries advisers; Mechanical engineers; Electrical engineers) and Legal, social and cultural professionals (mainly Lawyers and Economists) (Table A-6).

**Gender segregation in education among employed women and men aged 25 years and more is pronounced**: the Duncan index of dissimilarity at 3-digit educational groups among workers with tertiary education was 42.3 percent in 2016. The similar index among workers with secondary vocational education was almost twice larger (83.1 percent in 2016). Educational segregation further leads to gender divisions in the labor market.

**Like in the EU, Moldovan women with education in female-dominated fields are more likely to be well-matched to their jobs compared to men while the opposite holds true among women having a certificate or degree in male-dominated fields**. Studies of gender inequality in the EU (EIGE, 2017; EC, 2018) report that the chances of finding a job that would match their educational profile are higher for female graduates in female-dominated fields of studies (e.g. education, health and welfare) and much lower in male-dominated fields (e.g. STEM) than those of men. To test whether the same trend is observed in Moldova, we split up all 2-digit ISCO-based fields of studies into female/male-dominated and mixed specializations using cut-offs of 40 and 60 percent as we did for occupations in Section 2.1. Then we looked at the answers of employed women and men aged 25+ years to the question about correspondence between their education and current job (Table 3).[[11]](#footnote-11)

Table 3: Correspondence of education to job reported by employed women and men by female-dominated, mixed or male-dominated field of studies (%), 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Well-matched** | **Overqualified** | **Underqualified** | **Horizontal mismatch** |
| **Women** |  |  |  |  |
| Female-dominated specialization | 65.3 | 22.3 | 4.6 | 7.8 |
| Mixed specialization | 57.6 | 25.9 | 6.9 | 9.6 |
| Male-dominated specialization | 31.3 | 48.1 | 8.5 | 12.2 |
| Elementary occupations and/or unspecified specialization | 56.7 | 0.0 | 43.3 | 0.0 |
| Total | 58.3 | 18.3 | 17.5 | 5.9 |
| **Men** |  |  |  |  |
| Female-dominated specialization | 47.8 | 34.1 | 9.0 | 9.1 |
| Mixed specialization | 63.9 | 24.7 | 6.7 | 4.7 |
| Male-dominated specialization | 42.5 | 36.9 | 7.4 | 13.2 |
| Elementary occupations and/or | 46.2 | 0.0 | 53.8 | 0.0 |
| unspecified specialization |  |  |  |  |
| Total | 45.9 | 24.3 | 21.8 | 8.0 |

Note: The answers to the question about correspondence in the LFS questionnaire are "Yes, corresponds", "No, it's lower", "No, it's higher" and "Equivalent, but unrelated". Specialization is defined as female-dominated if the average share of employed women reporting about this field of studies in 2014-2016 was 60 percent or more; specialization is defined as male-dominated if the average share of employed women reporting about this field of studies in 2014-2016 was 40 percent or less; specialization with female share between 40 and 60 percent is classified as mixed. Classification is based on 2-digit ISCO-based fields of studies. Observations with missing information about the field of studies are grouped into "Elementary occupations and/or unspecified specialization".

**Both men and women with education in male-dominated specializations often suffer from a high degree of horizontal mismatch, i.e. a situation when the field of studies is not related to the performed job** (Table 3). This implies that the education and training system does not respond adequately to declining labor demand in male-dominated occupations. Alternatively, it may be an indicator of mismatch for older workers who acquired their professions many years ago and then their diplomas have become obsolete due to the restructuring of the Moldovan economy and employment in the 1990-2000s.

**Overall, employed men are more likely to be mismatched than women, both vertically and horizontally** (Table 3; NBS, 2017). This suggests that if educated women do find employment in Moldova, their opportunities to exercise knowledge and skills in the local labor market are not more limited than for men. The next chapters shed more light on the impact of children on labor market decisions of Moldovan women and the drivers of persistent gender wage gaps despite higher educational attainment of women and their relatively better match to jobs.

3. The impact of children on labor force participation and employment of women and men

## 3.1. Gender inequalities in the amount of time spent on unpaid care activities

**The persistent gender gaps in labor force participation and other labor market outcomes, despite the reduction in gender differences in education and the implementation of anti-discrimination policies across all regions of the world, are repeatedly explained by the unequal gender distribution of unpaid care work** (ILO, 2018).[[12]](#footnote-12) Time Use Survey data show that women around the world spend on average two to ten times more time on unpaid care work than men (Ferrant et al., 2014). Analysis of the Time Use Survey data in Moldova in 2012 supports these findings: Moldovan women spent almost double the amount of time on unpaid care work compared to men, with particularly pronounced differences in time devoted to cooking, washing dishes, cleaning the house, and caring for children (Table A-7 ). And they are likely to allocate more time to care-related and home production tasks throughout the day, regardless of whether they work for pay or not (World Bank, 2015a).

**Moldovan women tend to be much more involved in terms of both participation and time devoted to childcare**: according to the Time Use Survey in 2012, the proportion of women caring for children is over 3.5 times that of men in the youngest age group (18.9 and 5.2 percent, respectively) and almost twice that of men among population aged 25-64 years (27.2 and 14.6 percent, respectively) (Table A-7). Young women spend on average three times more time than young men on childcare (3.6 and 1.2 hours per day, respectively). Although the gender difference in the 25-64 age group is less pronounced (2.3 and 1.3 hours per day, respectively), we expect a larger difference among the 50-64 year-olds as grandmothers can be frequently involved in childcare for their grandchildren (World Bank, 2015a).

**Taking into account the aging of population and the incipient state of formal eldercare in Moldova, we can also expect that women’s care provider role extends beyond caring for children to care for elderly family members**. There is no relevant data and empirical evidence in Moldova. The analysis of the *ad hoc* household surveys in other countries reveals that respondents who provide informal eldercare are more likely to be female, single, older (40-49 years), out of the labor force but not providing childcare compared to non-elder caregivers (World Bank, 2015a).

## 3.2. Labor force and employment rates of mothers and fathers[[13]](#footnote-13)

**Women with 3 and more children tend to be significantly less educated than mothers of 1 or 2 children under 15 years** **and other women** (Table A-8). They also stand out in terms of the larger shares of married or cohabiting, those living in rural areas and in agrarian South. The overwhelming majority of working-age women in the LFS-2016 data do not have children, their children older than 15 years and/or or they do not live in the same household (hereafter referred to as nonmothers). About 20 percent of women have 1 child under 15 years, followed by mothers of 2 children (12.4 percent) and mothers of 3 and more children (2.7 percent) (Table A-8).

**Women with 1 child are significantly less likely to supply labor than women not having children of pre-school age (from 0 to 6 years), and mothers of 2 and more small children are even less likely to participate in the labor force** (Table A-9). At the same time, presence of at least one child under 7 years encourages more men to participate in the labor force in order to sustain the livelihood of their families.[[14]](#footnote-14) Consequently, the gender gap in labor force participation and employment rates increases with the number of children under 7 years, reaching 53.5 and 49.9 percentage points, respectively, for mothers and fathers of 2 and more children of pre-school age (Table A-9).

**The relationship between the number of children under 15 years and labor force participation rates of women and men is non-monotonic**: both mothers and fathers of one child have significantly higher participation and employment rates compared to their counterparts without children under 15 years. Mothers of 2 children under 15 years are almost as active in the labor force as women without children, whereas mothers of 3 and more children have significantly lower participation and employment rates compared to both nonmothers (or mothers of older children) and mothers of 1 or 2 children under 15 years (Table A-9).

**Not only has the *number* of children but also *age* of the youngest child contributed to gender differences in labor force participation**.[[15]](#footnote-15) As Figure 17 shows, the motherhood participation penalty is greatest for women having children aged 0-5 years. Only 10 percent of mothers of newborns supplied their labor in 2016, compared to 80 percent of fathers of newborns and 50 percent of women not having children under 18 years. A spike in the labor force participation rate of mothers when the youngest child reaches 3 years can be explained by the expiration of parental leave in accordance with the Labor Code (if there are no valid grounds to extend it until 6 years) and by availability of significantly more childcare options. When the youngest child reaches 5 years, the difference in labor force participation rate between mothers and fathers almost disappears and often turns in favor of women.

Figure 17: Labor force participation rate of women and men (15-64 years) by age of the youngest child (%), 2016



*Note: International migrants are excluded.*

**Maternal care and the cost-of-care hypotheses can explain** **why having small children represents a significant participation penalty for women as opposed to nonmothers, mothers of older children, and men (fathers and nonfathers)**. The “maternal care” hypothesis assumes that women may feel a personal responsibility and/or derive pleasure from providing care for their children until they reach school age; according to the “cost-of-care” hypothesis, women may prefer to look after their small children because they perceive the benefits from paid work to be lower than the costs of child care (Bruce, 1978). Both hypotheses hold true in Moldova. In accordance with the “maternal care” hypothesis, Moldovan women choose to provide personal care to their children, at least until they reach 5 years, as during the child age from 0 to 5 years care needs are the most demanding. Then children become less dependent of caregivers and less vulnerable to diseases, so they can attend kindergartens. This choice is often dictated by conservative social norms related to women’s involvement in childcare duties prevailing in post-Soviet countries (World Bank, 2015a). Despite significantly lower costs of childcare in Moldova than in the US or Canada, the “cost-of-care” hypothesis is also meaningful because childcare options for children under 3 years in public kindergartens are scarce in Moldova,[[16]](#footnote-16) while private childcare is affordable mainly to higher-income households. ILO (2018) argues that if the only available and affordable childcare services are of poor quality, women may choose to drop out of the labor force or reduce their working hours once their families can earn enough so that women do not need to work. Due to lack of “child-friendly” part-time jobs, many Moldovan women just delay their (re)-entry into the labor force until their children reach late pre-school (5-6 years) or even school age (7-14 years).

**After controlling for individual characteristics and place of residence, the probability of women’s labor force participation tends to decrease with the number of children under 7 years** (Table 4).[[17]](#footnote-17) Women with the youngest child under 3 years are significantly less likely to supply labor than women without children under 18 years in both samples (with and without international migrants), and women having children from 3 to 6 years are also less likely to participate in the labor force in a smaller sample that excludes international migrants (Table 4, specification 2b for women).

**Neither number nor age of the youngest child has a significant impact on the probability of labor force participation and employment of men in 2016 in a larger sample that includes international migrants among inactive individuals in line with the NBS approach** (Table 4, specifications 1a and 2a for men). But when international migrants are excluded from the sample, the presence of small children is associated with a larger likelihood of labor force participation and employment of men (Table 4, specifications 1b and 2b for men). In line with expectations, fathers of two or more children under 7 years and fathers of infants are significantly more likely to supply their labor in Moldova than working-age men not having children under 7 or 18 years.

Table 4: Determinants of labor force participation of women and men (15-64 years): probit model, 2016

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Women** | | | | **Men** | | | |
|  | **(1a)** | **(1b)** | **(2a)** | **(2b)** | **(1a)** | **(1b)** | **(2a)** | **(2b)** |
| *Number of children under 7 years* |  |  |  |  |  |  |  |  |
| 1 child under 7 years | -0.506\*\*\* | -0.694\*\*\* |  |  | 0.027 | 0.102\* |  |  |
|  | (0.054) | (0.053) |  |  | (0.045) | (0.052) |  |  |
| 2 and more children under 7 years | -0.971\*\*\* | -1.197\*\*\* |  |  | 0.064 | 0.160\*\* |  |  |
| (0.088) | (0.089) |  |  | (0.082) | (0.080) |  |  |
| 0-2 years |  |  | -1.228\*\*\* | -1.481\*\*\* |  |  | 0.102 | 0.196\*\*\* |
|  |  |  | (0.089) | (0.086) |  |  | (0.068) | (0.074) |
| 3-6 years |  |  | -0.061 | -0.248\*\*\* |  |  | -0.034 | 0.057 |
|  |  |  | (0.069) | (0.072) |  |  | (0.069) | (0.083) |
| 7-14 years |  |  | 0.113\* | 0.006 |  |  | 0.012 | 0.057 |
|  |  |  | (0.058) | (0.065) |  |  | (0.062) | (0.064) |
| 15-17 years |  |  | -0.017 | 0.095 |  |  | -0.066 | -0.104 |
|  |  |  | (0.075) | (0.075) |  |  | (0.072) | (0.080) |
| Respondent's age | 0.206\*\*\* | 0.244\*\*\* | 0.188\*\*\* | 0.226\*\*\* | 0.108\*\*\* | 0.147\*\*\* | 0.110\*\*\* | 0.148\*\*\* |
|  | (0.009) | (0.010) | (0.010) | (0.011) | (0.007) | (0.008) | (0.008) | (0.009) |
| Age squared (divided by 100) | -0.254\*\*\* | -0.304\*\*\* | -0.233\*\*\* | -0.284\*\*\* | -0.123\*\*\* | -0.180\*\*\* | -0.125\*\*\* | -0.181\*\*\* |
|  | (0.011) | (0.011) | (0.013) | (0.013) | (0.009) | (0.010) | (0.010) | (0.011) |
| Married | 0.333\*\*\* | 0.262\*\*\* | 0.361\*\*\* | 0.326\*\*\* | 0.422\*\*\* | 0.483\*\*\* | 0.413\*\*\* | 0.461\*\*\* |
|  | (0.072) | (0.072) | (0.070) | (0.070) | (0.055) | (0.060) | (0.065) | (0.072) |
| Widowed | 0.282\*\*\* | 0.204\*\* | 0.302\*\*\* | 0.258\*\*\* | 0.139 | 0.156 | 0.127 | 0.133 |
|  | (0.081) | (0.081) | (0.079) | (0.079) | (0.105) | (0.111) | (0.110) | (0.117) |
| Divorced | 0.168\*\* | 0.182\*\* | 0.162\* | 0.213\*\* | 0.192\*\*\* | 0.084 | 0.183\*\* | 0.071 |
|  | (0.085) | (0.087) | (0.085) | (0.087) | (0.072) | (0.078) | (0.075) | (0.080) |
| Cohabitating | 0.445\*\*\* | 0.328\*\*\* | 0.479\*\*\* | 0.399\*\*\* | 0.513\*\*\* | 0.473\*\*\* | 0.503\*\*\* | 0.454\*\*\* |
|  | (0.096) | (0.099) | (0.099) | (0.102) | (0.089) | (0.102) | (0.094) | (0.107) |
| Lower secondary | 0.662\*\*\* | 0.800\*\*\* | 0.668\*\*\* | 0.802\*\*\* | 0.455\*\*\* | 0.672\*\*\* | 0.450\*\*\* | 0.670\*\*\* |
|  | (0.152) | (0.159) | (0.156) | (0.162) | (0.122) | (0.117) | (0.122) | (0.118) |
| Upper secondary general | 0.603\*\*\* | 0.778\*\*\* | 0.631\*\*\* | 0.802\*\*\* | 0.500\*\*\* | 0.803\*\*\* | 0.495\*\*\* | 0.802\*\*\* |
|  | (0.151) | (0.159) | (0.156) | (0.163) | (0.130) | (0.128) | (0.130) | (0.128) |
| Upper secondary vocational | 0.756\*\*\* | 0.959\*\*\* | 0.780\*\*\* | 0.973\*\*\* | 0.656\*\*\* | 0.962\*\*\* | 0.651\*\*\* | 0.961\*\*\* |
|  | (0.153) | (0.162) | (0.157) | (0.165) | (0.130) | (0.126) | (0.130) | (0.126) |
| Post-secondary | 0.834\*\*\* | 1.060\*\*\* | 0.873\*\*\* | 1.095\*\*\* | 0.698\*\*\* | 0.991\*\*\* | 0.694\*\*\* | 0.988\*\*\* |
|  | (0.153) | (0.160) | (0.159) | (0.165) | (0.129) | (0.128) | (0.130) | (0.128) |
| Tertiary | 1.182\*\*\* | 1.411\*\*\* | 1.219\*\*\* | 1.449\*\*\* | 1.018\*\*\* | 1.354\*\*\* | 1.013\*\*\* | 1.353\*\*\* |
|  | (0.155) | (0.161) | (0.159) | (0.165) | (0.133) | (0.132) | (0.133) | (0.132) |
| Urban | -0.093 | -0.202\*\*\* | -0.087 | -0.203\*\*\* | -0.065 | -0.154\*\* | -0.067 | -0.156\*\* |
|  | (0.063) | (0.073) | (0.064) | (0.075) | (0.059) | (0.075) | (0.059) | (0.075) |
| Center | -0.194\*\* | -0.165\* | -0.186\*\* | -0.153 | -0.087 | -0.109 | -0.089 | -0.111 |
|  | (0.084) | (0.092) | (0.085) | (0.093) | (0.074) | (0.081) | (0.074) | (0.081) |
| South | -0.335\*\*\* | -0.254\*\*\* | -0.321\*\*\* | -0.233\*\* | -0.311\*\*\* | -0.258\*\*\* | -0.314\*\*\* | -0.260\*\*\* |
|  | (0.085) | (0.092) | (0.086) | (0.092) | (0.087) | (0.090) | (0.086) | (0.091) |
| Chisinau | -0.058 | -0.097 | -0.043 | -0.083 | 0.367\*\*\* | 0.294\*\*\* | 0.365\*\*\* | 0.292\*\*\* |
|  | (0.077) | (0.086) | (0.081) | (0.090) | (0.079) | (0.106) | (0.079) | (0.106) |
| Constant | -4.557\*\*\* | -5.080\*\*\* | -4.283\*\*\* | -4.800\*\*\* | -2.996\*\*\* | -3.505\*\*\* | -3.030\*\*\* | -3.524\*\*\* |
|  | (0.238) | (0.243) | (0.244) | (0.249) | (0.167) | (0.179) | (0.177) | (0.188) |
| N cases | 19,481 | 17,720 | 19,481 | 17,720 | 18,341 | 15,444 | 18,341 | 15,444 |

*Note: Dependent variable is a dummy variable for being in the labor force. Specifications a) use the sample of all surveyed individuals aged 15-64 years, whereas specifications b) exclude international migrants from the sample. Standard errors in parentheses, estimated with the svy command using clusters and sample weights. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Reference categories: No children under 7 years; No children under 18 years; Single; Primary education and less; Rural; North.*

**If the observed period is extended to 2009-2016 (Table A-10), the effect of children of school age becomes more significant for women in a larger sample that includes international migrants and it becomes significant for men in both samples**. A positive effect of the youngest child being between 7 and 14 years on the probability of mothers’ labor force participation along with its negative effect on the probability of fathers’ participation might be an indicator of the added worker effect and negative cross-elasticity of labor supply: once women enter paid work and augment household incomes, men tend to reduce their work efforts. When the youngest child reaches working age (15-17 years) and probably enters the labor market, at least as unpaid family helper, his/her father is even less likely to participate in the labor force than fathers of younger children and nonfathers, *ceteris paribus* (Table A-10).

## 3.3. Employment characteristics of mothers and fathers[[18]](#footnote-18)

**Childcare responsibilities are usually seen among the main barriers not only to women’s labor force participation (the extensive margin of labor supply) but also to better-quality employment, affecting the choice of occupation and the number of hours worked (i.e. the intensive margin of labor supply) (ILO, 2018).** Our analysis in Moldova shows that only mothers of 3 and more children under 15 years and mothers of infants (0-2 years) are more likely to take informal own-account or unpaid family work (Figure 18, Panel A) and to work shorter hours compared to other women (Figure 19, Panel A). But working mothers of 3 and more children under 15 years predominantly live in rural areas and they have no other choice but to work in (subsistence) agriculture in order to sustain their young children (Table A-8). About 13 percent of mothers of infants (0-2 years) reported zero hours worked during the reference week, predominantly because of being on maternity or parental leave.

Figure 18: Female and male workers (15-64 years) by employment type, number of children under 15 years and age of the youngest child (%), 2016

A) Women



B) Men



**Compared to women, men are less likely to work in formal wage employment and more likely to work informally as own-account workers, regardless of the presence of children and their age** (Figure 18, Panel B). Fathers of 3 and more children under 15 years differ significantly from other men in terms of the employment type, with a huge bias towards informal employment as own-account workers or employees. But this result should be interpreted with caution because of a small number of men with at least 3 children in the sample (48 observations in 2016).[[19]](#footnote-19) As one would expect, men on average work more than women, and the presence of children seems to exert a minor effect on the intensive margin of male labor supply (Figure 19, Panel B).

**Mothers of small children in Moldova do not tend to use self-employment more often than nonmothers in order to combine care provision and other family responsibilities with more flexible work**, as regression analysis of the determinants of the probability of self-employment and informal employment among female workers in 2016 suggests (Table A-11). If we exclude rural female workers with their widespread employment in subsistence agriculture regardless of the maternal status and age of children, the hypothesis that mothers are also more likely to work informally, either as employees or as own-account workers, is supported only for women with 3 and more children under 15 years (Table A-12).[[20]](#footnote-20) Thus, there are no marked differences in the employment type of mothers and nonmothers in Moldova.

Figure 19: Female and male workers (15-64 years) by hours of work for pay or profit in the reference week, number of children under 15 years and age of the youngest child (%), 2016

A) Women



B) Men



*Note: Grouping of working hours is done based on the answer about actual hours worked during the reference week in the main job.*

**When the youngest child reaches the age of 3 years – the age when public kindergartens become more available in Moldova, many mothers working part-time are ready but cannot work more due to a lack of full-time jobs or low demand for their services**.[[21]](#footnote-21) The overwhelming majority of mothers of infants (75.5 percent) reported family responsibilities being the main reasons for self-reported part-time employment. At the same time, mothers of older children (3 years and above) as well as nonmothers reported that they worked part-time predominantly because they were unable to find full-time employment, were transferred to part-time at the employer’s initiative or faced a lack of customers.

**There is no clear relationship between the incidence of public sector employment and number of children under 15 years** (Figure 20). However, there is a significant gender gap in all groups of employees categorized by the number of children under 15 years. Women often prefer public sector jobs that guarantee formality and stability that are not always provided in the private sector. Public sector jobs attract more women because of more flexible working hours, especially in education, health and social care, allowing women to combine paid work with family responsibilities (World Bank, 2014). Besides, provisions of the Labor Code about maternity leave and protection of women with children are more strictly followed in the public sector than in the private sector. At the same time, managers of public companies and organizations are less likely to discriminate in hiring and firing against women than employers in the private sector.

Figure 20: Incidence of public sector wage employment by gender and number of children under 15 years (%), 2016



*Note: Employees aged 15-64 years. Information about public sector is based on the answers of employees about the ownership type of the establishment where they worked.*

**The expectation of long working hours in some male-dominated jobs, on the one hand, and presence of valuable family amenities in female-dominated and mixed jobs, on the other hand, may contribute to occupational segregation, especially among women with children**. Figure 21 (Panel A) reveals that the difference between employed mothers of children of different age is not so much in the share of women working in male-dominated jobs as in the share of mixed jobs. The majority of women with 3 and more children under 15 years select into mixed occupations while women in the other categories predominantly work in female-dominated occupations. A closer look at mixed occupations that employed nearly 90 percent of mothers of 3 and more children in 2016 – Subsistence mixed crop and livestock farmers, Mixed crop and animal producers, Agricultural, forestry and fishery laborers, and Market gardeners and crop growers – supports our previous findings that working mothers of 3 and more children under 15 years predominantly live in rural areas and they have no other choice but to work in agriculture to sustain their young children. The same argument can be used to explain why employment of fathers of 3 and more children under 15 years is so biased towards mixed occupations (Figure 21, Panel B).

Figure 21: Female and male workers (15-64 years) by type of occupation, number of children under 15 years and age of the youngest child (%), 2016

A) Women



B) Men



*Note: An occupation is defined as female-dominated if the average share of women employed in this occupation in 2014-2016 was 60 percent or more; an occupation is defined as male-dominated if the average share of women employed in this occupation in 2014-2016 was 40 percent or less; an occupation with female share between 40 and 60 percent is classified as mixed. Classification here is based on 2-digit ISCO occupations.*

4. Gender pay gap and parenthood wage penalty[[22]](#footnote-22)

## 4.1. Levels and trends in the unadjusted gender pay gap

**According to the LFS-based measure of gender pay gap in employees’ hourly net wages, Moldovan women earned on average only 4 percent less than men in 2016, and this gap has slightly narrowed since 2010** (Figure 22). As expected, the gender pay gap based on hourly earnings for all employees is significantly lower than the one based on monthly earnings for full-time employees due to the higher proportion of part-time employees among women and shorter regular hours of work in female-dominated sectors such as education, health and social care. The time patterns of LFS-and NBS-based measures of gender pay gap between 2010 and 2016 are very different: a small decrease of the LFS-based measures as opposed to a slight increase in the NBS-based measure of gender pay gap. Nevertheless, the gender pay gap for monthly wages in 2016 appears to be very close: 14.5 percent based on the firm-level data and 12.6 percent based on the LFS data (Figure 22).

Figure 22: Gender pay gap: alternative measures (%), 2010-2016



*Sources: NBS databank, series: “Monthly gross average earning by Districts/Regions, Years and Sexes” based on Statistical survey M3-Annualy 'Salary earnings and labor force cost' which covers real sector economic units with 1 and more employees and all institutions in the budgetary sector; author’s calculations based on the individual-level LFS data.*

**The gender pay gap in hourly earnings in Moldova seems to be substantially lower than in all European countries**. Women in the EU-28 earned on average over 16.2 percent less per hour than men in 2016, with the gender pay gap varying within the Member states from 5.2 percent in Romania to 25.3 percent in Estonia (EC, 2018).[[23]](#footnote-23)

**Not only has the difference between the average hourly wages of men and women – the unadjusted gender wage gap – shrunk in 2016 compared to 2010, but there is also convergence between the male and female distribution of wages over the same period** (Figure 23). The distribution of women’s wages was more skewed to the left in 2010 than in 2016 whereas the men's wage distribution is skewed to the right in both years. The distributions of women’s and men’s wage have more similar shapes in 2016, even though the Kolmogorov-Smirnov test rejects the hypothesis for equality of distribution functions for men and women.

Figure 23: Kernel density estimates for real log wages by gender, 2010 and 2016

|  |  |
| --- | --- |
| A) Log hourly net wage, all employees, 2010 | B) Log hourly net wage, all employees, 2016 |
|  |  |

*Note: An* ***Epanechnikov kernel*** *function with a bandwidth of 0.1 is used; sample weights are applied. According to the Kolmogorov-Smirnov test for equality of distribution functions, the gender difference in the wage distributions is statistically different at a 1% level.*

**The hypothesis that Moldovan women are significantly underrepresented in higher-level jobs (managers and professionals) either due to discrimination or due to lower interest of women in high-level jobs is not supported with the LFS data** (Table 5).[[24]](#footnote-24) The gender pay gap among managers and professionals is smaller than in medium-level occupations. A substantially smaller gender pay gap in hourly earnings of all professionals compared to the gap measured in terms of monthly wages for professionals working full-time indicates that the gender pay gap almost disappears when the important difference in hours of work of female and male professionals is taken into account.

Table 5: Gender pay gap by ISCO 1-digit occupation (%), 2016

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ISCO 1-digit** | **Gender pay gap** | | **Share of occupation in employment** | | **Female share in occupational group** |
| Monthly, full-time | Hourly, all | Men | Women |
| Managers | 12.8 | 7.1 | 11.9 | 9.1 | 47.3 |
| Professionals | 14.3 | 2.3 | 14.8 | 26.5 | 67.7 |
| Technicians and associate professionals | 26.3 | 24.2 | 7.5 | 11.6 | 64.6 |
| Clerical support workers | 17.5 | 13.8 | 2.3 | 5.4 | 73.0 |
| Service and sales workers | 28.0 | 26.4 | 9.7 | 23.6 | 74.0 |
| Skilled agricultural, forestry and fishery workers | -11.7 | -13.5 | 1.5 | 1.4 | 52.2 |
| Craft and related trades workers | 9.3 | 8.9 | 17.3 | 9.2 | 38.5 |
| Plant and machine operators, and assemblers | 12.1 | 6.3 | 17.8 | 1.4 | 8.6 |
| Elementary occupations | 8.3 | -1.4 | 17.3 | 12.0 | 45.0 |
| Total | 12.6 | 3.8 | 100 | 100 | 53.7 |

**There is evidence of substantial overrepresentation of women in relatively lower-paying clerical, service and sales occupations and their underrepresentation in blue-collar jobs, including relatively high-paying craft and related trades occupations**. The occupational group that has the largest female share (service and sales workers) and that employs almost 24 percent of all female employees also stands out in terms of the largest gender pay gap of over 25 percent. On the other hand, the unadjusted gender pay gap is negative among female and male employees working as skilled agricultural workers or in elementary occupations, implying that women may get on average more per month and/or hour of work than men (Table 5).

## 4.2. Adjusted gender pay gap and its decomposition[[25]](#footnote-25)

**Yet, if many other factors of wage variation are held constant, occupation and sector**, which are usually considered the main contributors to the existing pay gap in developed countries (e.g. Blau and Kahn, 2017), **appear to be an insignificant or negative contributor to the gender pay gap in Moldova** (Table 6). In both specifications the gender gap narrowed between 2010 and 2016, which mirrors our findings based on the analysis of unadjusted pay gap (Figure 22). In line with expectations, the gender pay gap narrows when we control for important job characteristics in the full specification. According to the Oaxaca-Blinder decomposition of gender pay gap in hourly wages in 2016, place of residence, marital status and number of children under 15 years are also insignificant contributors to the existing pay gap.

**Education makes a negative contribution to the gender wage difference** **reflecting increasing educational attainment of women compared to men and subsequent increase in their relative wages** (Table 6, Panel A). A notable change is that this effect of education increased in magnitude between 2010 and 2016. When job characteristics are controlled for in the full specification (Table 6, Panel B), the effect of education remains significant and negative but its contribution to the explanation of the total pay gap decreases in magnitude compared to the reduced human capital specification.

**Age variables (age and age squared) that are used as a proxy for labor market experience also contribute to a decrease in the gender pay gap**, even though the effect was significant only in 2010. In the post-Soviet context, age proxies more for the “vintage” of individual, with older workers being less valuable because of depreciation of many technical skills and poor socio-emotional skills.

**The positive contribution to the gender wage gap comes from the differences in the firm size and an integrated variable of ownership and informal employment** (with 3 categories – public sector, non-public formal employment, and non-public informal employment). [[26]](#footnote-26) Gender differences in the type of employment and firm size accounted for over 65 percent of total pay gap in 2016. Thus, the impact of segregation of female and male employees on the pay gap comes not through occupation per se but via the women’s preference towards public sector jobs.

**Total explained gender pay gap is negative in 2010 and 2016** (Table 6) **that can be interpreted as a sign of the self-selection effect**: women with higher education and better employability join wage employment, and therefore female employees have average characteristics that are more favorable than those of men (Leythienne and Ronkowski, 2018). Decomposition of the difference between log hourly earnings of men and women based on the 2014 Structure of Earnings Survey in EU countries revealed the negative explained gap and the negative contribution of education and occupation in many transition countries, including Bulgaria, Croatia, Lithuania, Poland, Romania, and Slovenia (Leythienne and Ronkowski, 2018). Thus, Moldova is similar to other transition countries where female employees have a higher level of education and often take better-paid occupations than men while lower-educated women do not participate in the labor force or are predominantly working as self-employed or unpaid family workers.

Table 6: Oaxaca-Blinder decomposition of gender pay gap in log hourly wage, 2010 and 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2010** | | **2016** | |
|  | log points | percent of gender gap | log points | percent of gender gap |
| *A. Human capital specification* |  |  |  |  |
| Total pay gap | 0.085\*\*\* | 100 | 0.061\*\*\* | 100 |
| Total explained gap | -0.060\*\*\* | -70.2 | -0.049\*\*\* | -80.0 |
| Age | -0.005\*\*\* | -5.4 | -0.003 | -5.4 |
| Education | -0.056\*\*\* | -65.7 | -0.052\*\*\* | -85.0 |
| Married | 0.000 | -0.2 | 0.001 | 1.6 |
| Children under 15 years | 0.001 | 1.0 | 0.000 | -0.2 |
| Urban | -0.001 | -1.4 | 0.003 | 5.4 |
| Region | 0.001 | 1.5 | 0.002\* | 3.5 |
| Total unexplained gap | 0.145\*\*\* | 170.2 | 0.110\*\*\* | 180.0 |
| *B. Full specification* |  |  |  |  |
| Total pay gap | 0.064\*\*\* | 100 | 0.056\*\*\* | 100 |
| Total explained gap | -0.054\*\*\* | -84.4 | -0.043\*\*\* | -76.8 |
| Age | -0.005\*\*\* | -7.1 | -0.004\*\*\* | -7.7 |
| Education | -0.025\*\*\* | -39.3 | -0.035\*\* | -62.3 |
| Married | -0.001 | -1.1 | 0.002\* | 2.9 |
| Children under 15 years | 0.001 | 1.4 | 0.000 | -0.2 |
| Urban | 0.000 | 0.1 | 0.001 | 0.9 |
| Region | -0.001 | -1.5 | 0.003 | 5.2 |
| Occupation | -0.033\*\*\* | -52.3 | -0.017 | -29.7 |
| Sector | -0.011 | -16.9 | -0.024\*\* | -43.3 |
| Part-time | 0.000 | -0.7 | -0.005\*\*\* | -8.1 |
| Firm size | 0.005 | 7.9 | 0.008\*\* | 14.2 |
| Ownership\*Formal employment | 0.016\*\*\* | 25.1 | 0.029\*\*\* | 51.4 |
| Total unexplained gap | 0.117\*\*\* | 184.4 | 0.098\*\*\* | 176.8 |

*Note: \*\*\* significant at 1%, \*\* significant at 5%, \* significant at 10%. Estimated using Oaxaca command with an svy option. Age includes age and age squared. Education includes 5 levels of education. Children includes 4 variables for the number of children under 15 years (as in* Table *7). Region includes 4 zones (North, Center, South and Chisinau municipality). Occupation includes 9 variables for 1-digit occupational groups. Sector includes 11 variables for sectors based on NACE Rev.2. Firm size includes 3 variables for the firm size defined by employees. Ownership\*Formal employment includes 3 variables: public (a reference category in the regression), formal employment in the non-public firm and informal employment in the non-public firm.*

**The large and positive unexplained gap may signal important omitted variables, for example, actual work experience,** the same result asin the previous decomposition exercise based on the HBS-2011 data (World Bank, 2014)**.** Interpretation of the whole unexplained gap as discrimination through ‘unequal pay for equal work’ is not recommended (Leythienne and Ronkowski, 2018).

## 4.3. Parenthood wage penalty

**The motherhood wage penalty estimated with the OLS regression is about 6.7 percent for women having one child and about 10 percent for women with two children under 15 years** (Table 7).[[27]](#footnote-27) At the moment, we do not interpret the observed empirical association as causal, because it could be due to selection of women with higher wage offers and higher costs of children into employment and also selection of women with children into positions that have valuable family amenities but lower wages.

Table 7: Wage regression for female and male employees (OLS), 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Women** | | **Men** | |
|  | Human capital specification | Full specification | Human capital specification | Full specification |
| 1 child under 15 years | -0.078\*\*\* | -0.057\*\* | 0.075\*\* | 0.032 |
|  | (0.028) | (0.025) | (0.030) | (0.028) |
| 2 children | -0.092\*\*\* | -0.099\*\*\* | 0.077\*\* | 0.011 |
|  | (0.035) | (0.034) | (0.038) | (0.034) |
| 3 and more children | -0.003 | -0.040 | -0.197 | -0.244\* |
|  | (0.069) | (0.063) | (0.128) | (0.137) |
| Married or cohabiting | 0.033 | 0.020 | 0.041 | 0.050\* |
|  | (0.024) | (0.019) | (0.032) | (0.027) |
| Age | 0.015\* | 0.021\*\*\* | -0.004 | -0.003 |
|  | (0.008) | (0.007) | (0.007) | (-0.003) |
| Age squared (divided by 100) | -0.020\*\* | -0.025\*\*\* | -0.001 | 0.000 |
| (0.009) | (0.009) | (0.008) | (0.000) |
| Upper secondary general | 0.018 | 0.005 | 0.158\*\*\* | 0.034 |
|  | (0.031) | (0.030) | (0.043) | (0.036) |
| Upper secondary vocational | 0.080\*\* | 0.017 | 0.187\*\*\* | -0.031 |
| (0.034) | (0.030) | (0.050) | (0.035) |
| Post-secondary (college) | 0.325\*\*\* | 0.189\*\*\* | 0.401\*\*\* | 0.096\*\* |
|  | (0.033) | (0.040) | (0.061) | (0.048) |
| Tertiary | 0.728\*\*\* | 0.400\*\*\* | 0.602\*\*\* | 0.188\*\*\* |
|  | (0.036) | (0.044) | (0.048) | (0.044) |
| Urban | 0.026 | 0.019 | 0.132\*\*\* | 0.064\*\* |
|  | (0.039) | (0.033) | (0.035) | (0.031) |
| North | -0.163\*\*\* | -0.126\*\*\* | -0.295\*\*\* | -0.208\*\*\* |
|  | (0.042) | (0.038) | (0.043) | (0.040) |
| Center | -0.102 | -0.065 | -0.157\*\*\* | -0.115\*\*\* |
|  | (0.052) | (0.044) | (0.049) | (0.041) |
| South | -0.188\*\*\* | -0.160\*\*\* | -0.343\*\*\* | -0.266\*\*\* |
|  | (0.039) | (0.038) | (0.048) | (0.048) |
| Job characteristics | No | Yes | No | Yes |
| N | 4258 | 4224 | 3361 | 3286 |
| R2 | 0.3439 | 0.4936 | 0.3071 | 0.4746 |

*Note: Dependent variable is the logarithm of hourly net wage. \*\*\* significant at 1%, \*\* significant at 5%, \* significant at 10%. Standard errors in parentheses. Estimated using Oaxaca command with an svy option (the same as for Table 6). Reference categories: No children under 15 years; Single; Lower secondary education and less; Rural; Chisinau municipality. Job characteristics include dummy variables for sector, occupation, part-time employment, firm size and public-private sector interacted with informal employment.*

**Men, on the contrary, are likely to get the so-called fatherhood bonus if they have 1 or 2 children under 15 years but this effect becomes insignificant when job characteristics are included** (full specification). At the same time, men with 3 and more children under 15 years are likely to face a wage penalty of over 20 percent, after controlling for job characteristics in the extended model. However, the latter effect is only marginally significant, and the number of such men is too small among employees[[28]](#footnote-28) to draw strong conclusions about the negative impact of 3 and more children per se on fathers’ wages.

5. Gender differences in desired job characteristics and salary expectations: Analysis of scraped job seeker profiles[[29]](#footnote-29)

## 5.1. Socio-demographic characteristics of online job seekers

**To explore whether observed gender differences are shaped by different labor market aspirations and expectations, additional analysis was carried out based on information from resumes posted during January-June 2018 at one of the largest online job search portals in Moldova**. Resumes from female job candidates account for 40 percent of all resumes in the dataset. Roughly four in five resumes come from the residents of two largest cities of Moldova (Chisinau and Balti), while 40 other cities and towns represented in our sample comprise less than 20 percent of resumes. This suggests that the Internet is substantially more actively used for job search by residents of large cities. The use of online employment resources allows to reduce job search costs (in terms of both money and time) and improve efficacy of job match in dynamic and competitive urban labor markets. Residents of rural areas and small towns seem to prefer traditional methods of job search and rarely post their resumes online.

**As one would expect, young people prevail among job seekers using the Internet**, and women appear to be on average younger than men (Table 8). Although there are job seekers aged from 14 to 72 years in the sample, 74 percent of female job seekers and 68 percent of male job seekers are under 30 years. The median age of female and male jobseekers is 23 and 25 years, respectively.

Table 8: Socio-demographic characteristics of job seekers by gender, 2018

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristic** | **Statistics** | **Female** | **Male** | **Total** |
| Age | Mean (years) | 26.1\*\*\* | 27.8 | 27.1 |
| SD (years) | 8.9 | 9.8 | 9.5 |
| Median (years) | 23 | 25 | 24 |
| Min (years) | 14 | 14 | 14 |
| Max (years) | 67 | 72 | 72 |
| Marital status | Share married (%) | 29.8 | 31.3 | 30.7 |
| Share unmarried (%) | 68.9 | 67.0 | 67.8 |
| Share with unspecified marital status (%) | 1.3 | 1.7 | 1.6 |
| Presence of children | Share of all reporting as having children (%) | 31.6\*\*\* | 28 | 29.5 |
| Share of married reporting as having children (%) | 79.5 | 80.7 | 80.2 |
| Share of unmarried reporting as having children (%) | 10.8\*\*\* | 3.7 | 6.6 |
| Photo attached to CV | Share of resumes with photo (%) | 72.9\*\*\* | 60.7 | 65.6 |
| N of profiles of job seekers in January-June 2018 | | 1,949 | 2,875 | 4,824 |

*Note:* *\*\*\* denotes statistically significant difference between women and men at 1%.*

**Given the age composition, it is not surprising that the overwhelming majority of job seekers are not married (even though they can be cohabiting) and do not have children, and that there is no significant difference by gender**. One of the most striking differences between women and men is in the share of unmarried individuals having children: it is almost three times higher among female job seekers compared to that of men (Table 8). This suggests that unmarried mothers with many responsibilities including financial provision, parenting, and housekeeping might actively use the Internet to find a suitable “child-friendly” job.[[30]](#footnote-30) On the other hand, single or cohabiting men are more likely to hide information about having children.

**Another important difference is in the share of resumes with attached photos: women are much more likely to add their photo to online resumes than men**. Perhaps women believe that adding a photo to the resume will enhance their chances of getting noticed by potential employers and being invited to the job interview.[[31]](#footnote-31) An alternative explanation is that if a job portal suggests adding a photo to their profile, more women do this than men because women tend to be more responsive to requests and rules.

**An important issue for discussion is whether a job portal is entitled to ask job applicants for their personal information such as age, marital status and having children and a photo**. Such information can substantially bias the recruitment process encouraging employers to discriminate based on age, gender, motherhood, attractiveness or personal style. Rinne (2014) argues that reducing hiring discrimination can have large benefits and using anonymous job applications is one practical method for achieving these benefits. However, anonymous job applications cannot prevent discrimination in later stages of the hiring process, while they can block affirmative action by employers in the initial stage of recruitment. The author concludes that anonymous job applications are not a panacea against employer discrimination. Proponents of adding personal photo and information to resumes, predominantly in the EU countries, argue that a resume with photo provides a more complete representation of the applicant and that anyway this personal information can be found in job seekers’ social media profiles.

## 5.2. Human capital characteristics of online job seekers

**The vast majority of job seekers posting their resumes on the local job portal have either incomplete or complete tertiary education** (Table 9). Their share is considerably larger than the proportion of higher-educated individuals among unemployed men and women according to the LFS.[[32]](#footnote-32) This is in line with our expectation of higher levels of educational attainment among the users of online employment resources.

**Female job seekers tend to be more educated than their male counterparts not only in terms of the highest level of education but also with regard to the reported number of education episodes**. Studies of resumes in the US find that women present themselves very differently in resumes than men, citing more credentials and personal distinctions and using more words.[[33]](#footnote-33) If similar differences are observed in Moldova, women would be expected to report more education episodes than men but these additional episodes would not necessarily mean more degrees at higher levels of education. Our dataset of scraped resumes does not include the whole education history, and therefore we cannot test this hypothesis with quantitative information. A quick analysis of selected online profiles with 3 and more education episodes shows that individuals of both genders report several education episodes including those at lower levels, e.g. colleges, vocational schools, and short-term training courses.

Table 9: Educational attainment, language and driving skills of female and male job seekers, 2018

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristic** | **Statistics** | **Female** | **Male** | **Total** |
| Education (level) | Secondary general (%) | 16.6 | 17.0 | 16.8 |
| Secondary vocational/special (%) | 17.3\*\*\* | 25.4 | 22.1 |
| Incomplete tertiary (%) | 20.2\*\*\* | 17.1 | 18.4 |
| Tertiary (%) | 37.9\*\*\* | 34.0 | 35.6 |
| Student (%) | 6.6\*\*\* | 4.8 | 5.5 |
| Unspecified (%) | 1.3 | 1.7 | 1.6 |
| Number of education episodes reported in CV | 0 (%) | 8.0 | 6.5 | 7.1 |
| 1 (%) | 77.7\*\* | 80.7 | 79.5 |
| 2 and more (%) | 14.3 | 12.8 | 13.4 |
| Time since the last education episode | Mean (years) | 7.9\*\*\* | 9.1 | 8.7 |
| SD (years) | 8.3 | 9.1 | 8.8 |
| Median (years) | 5 | 6 | 6 |
| Min (years) | 0 | 0 | 0 |
| Max (years) | 42 | 45 | 45 |
| Job seekers continuing education | N | 568 | 596 | 1,164 |
| Share of all job seekers (%) | 29.1\*\*\* | 20.7 | 24.1 |
| Number of languages reported in CV | 1 (%) | 1.7 | 2.5 | 2.2 |
| 2 (%) | 31.8\*\*\* | 39.1 | 36.1 |
| 3 (%) | 45.4 | 46.0 | 45.8 |
|  | 4 (%) | 16.3\*\*\* | 10.1 | 12.6 |
|  | 5 and more (%) | 4.8\*\*\* | 2.4 | 3.3 |
| Job seekers having driving license (% of all job seekers) | | 24.2\*\*\* | 56.6 | 43.5 |

*Note:* *\*\*\*/\*\* denotes statistically significant difference between women and men at 1%/5%.*

**There are also relatively more students among women posting their resumes online**. Based on information about the level of education, 6.6 percent of female job seekers and 4.8 percent of male job seekers reported themselves as students at the time of creating their profiles. If information about the end year of the last education episode is used instead, the share of job seekers who reported continuing studies at the time of posting resume increases to 29.1 percent among women and to 20.7 percent among men (Table 9).[[34]](#footnote-34) Besides, 6.7 and 5.9 percent of female and male job seekers, respectively, reported that their education finished in 2018. Thus, roughly one in three job seekers posting their resumes on the online job portal in 2018 is either a current student or a recent graduate. However, there are also individuals who acquired their education before the collapse of the USSR (4.6 percent of all job seekers finished education in 1991 and earlier) or during the early years of Moldova’s independence (4.7 percent of job seekers finished education in 1992-1999).

**Young Moldovans show a remarkable preference towards degrees in social sciences, business, and law (both for women and men), and a large gender bias in the most popular STEM fields such as engineering and ICT** (Figure 24). The most popular fields among job seekers with incomplete or complete tertiary education are: (i) Engineering and engineering trades including technologists, (ii) Management and administration, (iii) Law, and (iv) ICT. But the share of job seekers in Accounting and taxation, Finance, banking and insurance, and Economics is higher than in Engineering.

Figure 24: Recent field of studies among job seekers with incomplete or complete tertiary education by gender (number of job seekers), 2018



*Note: Fields are coded in accordance with ISCED-F 2013. They are ordered by the female share in the field. Fields of studies with less than 10 observations are not shown.*

**There is a distinct gender segregation in education among online job seekers, with a high proportion of men having degrees in engineering and ICT, architecture and construction, law and its enforcement (protection of persons and property), and relatively many more women majoring in accounting and marketing, health and welfare, arts and languages, education and psychology, journalism and tourism**. Female share increases from zero percent in Protection of persons and property and 14 percent in Engineering to 51.2 percent in Management and administration and then to 84.6 percent in Languages (Figure 24).

**It is not surprising that women who are on average better educated than men report superior linguistic abilities**: the proportion of women with some fluency in four and more languages is substantially larger compared to men (Table 9), and the share of women reporting some level of competence in European languages (French, German, Italian, and Spanish) is almost twice higher compared to men (Figure 25). On the other hand, 2.5 percent of men versus 1.7 percent of women do not speak any other language than their mother tongue, predominantly Russian.

Figure 25: Proportion of job seekers reporting some level of competence in languages by gender (%), 2018



**Female job seekers reported on average shorter work experience than men– 4.9 versus 5.9 years** (Table 10). The gender difference in terms of the other characteristics of employment history, including reported number of employment episodes, time since the last employment episode, and the share of job seekers that can be classified either as currently employed or unemployed, is not statistically significant (Table 10).

Table 10: Work experience of female and male job seekers, 2018

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristic** | **Statistics** | **Female** | **Male** | **Total** |
| Work experience | Mean (years) | 4.9\*\*\* | 5.9 | 5.5 |
| SD (years) | 6.1 | 6.8 | 6.5 |
| Median (years) | 2.6 | 3.3 | 3.0 |
| Min (years) | 0.1 | 0.1 | 0.1 |
| Max (years) | 42.2 | 46.8 | 46.8 |
| Share of job seekers reporting some experience (%) | 67.9 | 70.4 | 69.4 |
| Number of employment episodes reported in CV | 0 (%) | 26.9 | 25.3 | 26.0 |
| 1 (%) | 43.6 | 44.1 | 43.9 |
| 2 and more (%) | 29.5 | 30.6 | 30.1 |
| Time since the last employment episode (zeros are excluded) | Mean (months) | 1.3 | 1.5 | 1.4 |
| SD (months) | 2.1 | 2.5 | 2.4 |
| Median (months) | 0.7 | 0.6 | 0.6 |
| Min (months) | 0.1 | 0.1 | 0.1 |
| Max (months) | 23.0 | 22.4 | 23.0 |
| Job seekers continuing employment, i.e. reporting “present” as the end of the last employment episode (% of all job seekers) | | 28.2 | 29.4 | 28.9 |
| Job seekers with missing info about the end of the last employment episode (% of all job seekers) | | 30.1 | 27.8 | 28.7 |
| Job seekers that can be defined as unemployed based on information about the end of the last employment episode (% of all job seekers) | | 41.8 | 42.9 | 42.4 |

*Note:* *\*\*\* denotes statistically significant difference between women and men at 1%.*

**The most likely explanation of unspecified experience among a large share of job seekers (32.1 percent for women and 29.6 percent for men) is lack of prior work experience because of young age (over 80 percent of job seekers are under 25 years) and either continuing education or recent graduation**. A closer look at socio-demographic characteristics of women and men with unspecified experience shows that the share of married individuals (16.3 percent of women and 10.8 percent of men) and those having children (13.9 percent of women vs. 8.7 percent of men) is relatively small to explain why nearly one in three job jobseekers did not specify work experience in their profiles. Whether posting resume online is an effective method of job search for young people with no prior formal work experience remains an open question for future research.

## 5.3. Desired sector, occupation, and job characteristics of female and male job seekers

**Women clearly dominate in education, arts and entertainment, health care, financial and insurance activities, work from home and in private households**(Figure 26). Men prevail in transport, construction, ICT, industry, top management (general category without a definite sector) and real estate activities. Professional, administrative and support service activities, Trade, and Financial and insurance activities are the three most popular sectors in which over 45 percent of women searched for a job. The top sectors among male job seekers are Professional, administrative and support service activities, Transportation and storage, and ICT.

Figure 26: Job seekers by desired sector and gender (%), 2018



*Note: Original categories offered by* [*https://www.rabota.md*](https://www.rabota.md/) *to the choice of individuals posting their resumes have been grouped and coded by the author in accordance with NACE Rev.2. General categories such as Top management, Work for students, Work abroad and Work from home are left without changes. Sectors are ordered by the share of resumes from women.*

**Online job seekers are underrepresented in traditional sectors such as agriculture, industry, construction and public services but overrepresented in modern sectors including information and communication and various service activities for businesses and individuals**, as follows from comparison of sectoral composition of female and male job seekers in our sample of scraped resumes with the one for employed urban residents according to the LFS-2017 (Table A-4). This important difference can be driven by the differences in the composition by age, education, and place of residence between online job seekers and total employed population discussed above. Besides, employers can prefer different channels for filling their vacancies, and job candidates are likely to adjust to employers’ preferences. For example, agricultural firms rarely use online job search portals, and therefore job seekers willing to work in agriculture are less likely to use online portals for their job search.

**Over 60 percent of female job seekers and about 55 percent of male job seekers are looking for a job in top three occupational groups (managers, professionals, and associate professionals)** (Figure 27). The bias of online job seekers to highly skilled jobs compared to the urban employed population in Moldova (Table A-5 ) is predictable in view of higher educational attainment of online job seekers, their concentration in two largest cities, and specific sectoral composition. It is noteworthy that roughly one in ten job seekers in our dataset of scraped resumes did not specify occupation writing instead “I’m seeking a job”, “Any job”, “Part-time job for a student”, “Depends on the offer from employer”, etc. (we grouped them into “Any”). This implies that many individuals, predominantly young people without work experience, are ready to consider any job.

The most popular 3-digit ISCO occupations among female job seekers belong to Sales, marketing and public relations professionals (9.9 percent), Finance professionals (9.7 percent), Client information workers (6.9 percent), Waiters and bartenders (6.6 percent), and Administration professionals (5.3 percent). Applications from male job seekers most often categorize into Car, van and motorcycle drivers (11.9 percent), Software and applications developers and analysts (10.3 percent), Sales, marketing and public relations professionals (6.4 percent), Engineering professionals (4.8 percent) and Waiters and bartenders (4.3 percent).

Figure 27: Job seekers by desired occupation and gender (%), 2018



*Note: Original occupations reported by job seekers in their resumes have been translated and coded by the author in accordance with ISCO-2008, first at 4 or 3-digit level depending on the occupation, and then grouped into 2- and 1-digit occupational groups. General categories such as Any (including any distance or part-time job) and Freelancers are left without changes. 54 out of 4824 resumes have missing info about desired occupation or this occupation is difficult to code. Occupations are ordered by the share of resumes from women.*

**Women strongly dominate only among individuals seeking clerical and freelance jobs while men prevail among the applicants to blue-collar jobs (operators, craftsmen and elementary occupations) and to managerial jobs** (Figure 27). The group of professionals is more gender-balanced among online job seekers than among the employed urban residents (Table A-5 ). This is most likely because traditional female-dominated sectors such as public administration, education, and health care are underrepresented in our sample of scraped resumes while male-dominated ICT sector is, on the contrary, overrepresented.

**Substantially higher proportion of job seekers, especially males, were looking for a job in female-dominated occupations compared to the respective share of employed population in 2016** (Figure 28).[[35]](#footnote-35) On the other hand, the share of women applying to male-dominated occupations is slightly larger than the share of women employed in these occupations in 2016. A significantly smaller proportion of both male and female jobseekers in mixed occupations (compared to employed workers) is attributed to the absence of skilled and unskilled agricultural workers and a very small number of craftsmen and assemblers in the sample of job seekers using online job portal.

Figure 28: Job seekers vs. employed by the type of occupation



Note: A 2-digit ISCO occupation is defined as female-dominated if the average share of women employed in this occupation in 2014-2016 was 60 percent or more; an occupation is defined as male-dominated if the average share of women employed in this occupation in 2014-2016 was 40 percent or less; an occupation with female share between 40 and 60 percent is classified as mixed (see the mapping in Annex 2). Composition of employed by the type of occupation is taken from Table 2.

**Analysis of the two main indices of occupational gender segregation for the sample of job seekers in 2018 also points to a slightly smaller extent of occupational segregation compared to the total employed population in 2016** (see Figure 9 and Figure 15 above): the Duncan index of dissimilarity for 3-digit ISCO occupations is 43.6 percent vs. 45.8 percent, and Karmel and MacLachlan index is 21 percent vs. 22.9 percent.

**Women using the online job portal for posting their resumes and seeking jobs differ from men not only in the desired sector and occupation, but also in the type of job they would like to have**. Although the majority of both female and male job seekers are looking for full-time jobs, the share of women looking for a part-time, shift or distance work is considerably larger than the share of men, overall and in all sectors except for Education (Figure 29). And this is not so much due to being married or having children (married women and women with children are even more inclined to full-time jobs than single women) as due to the need to combine work and studies,[[36]](#footnote-36) to have a secondary job or for some other reasons. This unexpected result is attributed to a very particular segment of the population who post their resumes in the online job portal – young urban residents many of whom continue their studies. As one could expect, the categories in which the majority of female and male job seekers looking for a flexible working arrangement are Work from home and Work for students. A high proportion of female job seekers who would like to work part-time or in shifts is also in Arts, entertainment and recreation and Accommodation and food service activities.

Figure 29: Female and male job seekers by desired sector and flexible working arrangement (%), 2018



*Note: The height of each bar corresponds to the share of female/male job seekers within a desired sector looking for a part-time, shift or distance work (as opposed to full-time work). Green dots show the sector-specific gender gap on flexible working arrangement preferences (in percentage points). Sectors are sorted by this gender gap.*

*Key for sectors: 1 = Education, 2 = Professional, administrative and support service activities, 3 = Industry,   
4 = Construction, 5 = Transportation and storage, 6 = Other service activities, 7 = Private households with employed persons, 8 = Financial and insurance activities, 9 = Accommodation and food service activities, 10 = Work from home, 11 = Information and communication, 12 = Arts, entertainment and recreation, 13 = Work for students, 14 = Health care, 15 = Trade. Agriculture, Real estate Activities, Public Administration, Work abroad, and Top management are not shown because of the small number of job seekers looking for other than full-time employment.*

**Analysis of resumes posted by female and male job seekers reveals that women are less mobile in the labor market compared to men** – they are significantly less likely to report willingness to move to another city if needed for a job (Figure 30) and they report lower availability for business trips (Figure 31). Overall, the proportion of job seekers ready to move to another city is quite low (10.9 percent among women and 19.6 percent among men). This is not surprising as the vast majority of job seekers in our sample live in the most economically developed cities (Chisinau and Balti). The cities with the highest mobility potential (over 50 percent of job seekers are ready to relocate of necessary) are Criuleni, Leova, Hincesti, Singerei, Cantemir, Vulcanesti, and Tiraspol but they together account for less than 2 percent of all job seekers in our sample. Das et al. (2018) argue that mobility restrictions existing due to social norms, gender-based violence, and perceptions of safety can affect women’s choice of jobs and, therefore, they can contribute to gender inequality and occupational segregation.

Figure 30: Proportion of job seekers ready to move to another city by gender and socio-demographic characteristics (%), 2018



**The gender gap in the readiness to move to another city and in the availability for business trips increases for married individuals and for jobseekers with children** because family men appear to be more mobile than their single counterparts while women with family obligations are, on the contrary, less mobile (Figure 30 and Figure 31). Although young job seekers studying at the moment of posting resumes (students) are expectedly less mobile than individuals not bonded to educational institutions (non-students), the majority of students – 54.2 percent of female and 72 percent of male job seekers – report availability for business trips.

Figure 31: Proportion of job seekers available for business trips by gender and socio-demographic characteristics (%), 2018



## 5.3. Salary expectations of job seekers[[37]](#footnote-37)

**Women tend to report a numerical value for expected salary more often than men but overall one in three job seekers prefer to write “negotiable” instead of a specific amount in local currency** (Table 11).[[38]](#footnote-38) The average expected salary is 6,166 MDL, which is slightly above the average wage in the Moldovan economy in the first quarter of 2018 (5906.5 MDL).[[39]](#footnote-39) If we exclude presumably small values for a monthly wage (below 2,000 MDL), the average salary increases to 6,373 MDL.

Table 11: Salary expectations of female and male job seekers, 2018

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristic** | **Statistics** | **Female** | **Male** | **Total** |
| Job seekers reporting “Negotiable” for salary (% of all job seekers) | | 27.7 | 35.7 | 32.5 |
| Job seekers reporting salary under 2,000 MDL (% of all job seekers) | | 2.6 | 2.2 | 2.4 |
| Salary expectation (only jobseekers reporting salary of at least 2,000 MDL) | Mean (MDL) | 5,684 | 6,898 | 6,373 |
| SD (MDL) | 5,729 | 5,238 | 5,488 |
| Median (MDL) | 5,000 | 6,000 | 5,000 |
| Min (MDL) | 2,000 | 2,000 | 2,000 |
| Max (MDL) | 100,000 | 100,000 | 100,000 |

**Job seekers looking for a job in Top management and Work abroad expect much higher salary than in the other sectors** (Figure 32), but variation in salary expectations is also very large (Figure 33). Young individuals looking for Work for students are the least demanding in terms of wages.

Figure 32: Average salary expectations and gender gap among job seekers by sector (MDL), 2018\*

*Note: Job seekers with reservation wage of at least 2000 MDL. Sectors are ordered by the gender gap in the average reservation wage.*

**Female jobseekers expect, on average, 17.6 percent lower wages compared to males** (Table 11). The unadjusted gender gap in the mean expected salary appears to be higher than the actual pay gap in monthly net wage among employees in 2016 (12.6 percent). Thus, female job seekers expect on average much lower wages than men, probably because of imperfect information about wage offer and lower reservation wages. But differences in the sectoral and occupational composition of employed population in 2016 and the sample of job seekers in 2018 might also contribute to the observed difference in the pay gap.

**But the unadjusted gender gap in the mean expected salary varies greatly by sector – from negative 41.3 percent in private households with employed persons to positive 33.5 percent in Financial and insurance activities and 36.4 percent reported by individuals willing to work abroad** (Figure 32). The negative gap in four sectors suggests that women expect on average higher salaries than men. All these sectors are female-dominated (see Figure 26), so female job seekers may feel their comparative advantage and expect higher salaries than men. Wider confidence intervals along with lower expected salary reported by women in many sectors (Figure 33) provide additional evidence of imperfect information for women compared to men.

Figure 33: Average salary expected by female and male job seekers by sector (MDL), 2018



*Note: Job seekers with expected salary of at least 2000 MDL. The figures show mean wages with 95% confidence intervals.*

*Key for sectors: 1 = Industry, 2 = Construction, 3 = Trade, 4 = Transportation and storage, 5 = Accommodation and food service activities, 6 = Information and communication, 7 = Financial and insurance activities,   
8 = Real estate activities, 9 = Professional, administrative and support service activities, 10 = Public administration, 11 = Education, 12 = Health care, 13 = Arts, entertainment and recreation, 14 = Other service activities, 15 = Private households with employed persons, 16 = Work for students, 17 = Work from home,   
18 = Work abroad, 19 = Top management*.

**After controlling for family status, human capital, and job characteristics, women’s expected salary is on average 13.5 percent lower than that of men** (Table A-13, model 1). Most explanatory variables have a similar effect on the expected salaries of women and men, except for the marital status: married women are likely to expect on average lower wages than unmarried women, whereas married men, on the contrary, would like to get higher salary compared to their single counterparts. This finding supports a traditional paradigm of the family with a breadwinner role fulfilled by a man and an adder worker role played by a woman. Currently employed job seekers tend to expect higher salary than non-employed individuals overall, but the presence of children somewhat decreases salary expectations among male job seekers looking for a better or secondary job (an interaction between the current employment status and a dummy variable for children has a negative sign but it is insignificant in the model for women). Both men and women looking for full-time work, ready to relocate or available for business trips expect to get on average higher salary than job candidates seeking for more flexible arrangements and who are less mobile. These salary expectations are in line with the theories of compensating wage differentials and hedonic wage theory according to which workers can command higher wages to accept jobs with less attractive characteristics.

**A Field-type decomposition of the contribution of different factors to the inequality in salary expectations reveals that work experience is the most important factor accounting for over 10 percent of wage variation** (Figure 33). Desired type of job, availability of job candidates for business trips and their readiness to relocate are factors which together account for 7 percent of variation in salaries expected by male and female job seekers. Education and languages, followed by sector and occupation, also play an important role in determining the level of wage that job seekers would like to get.

Figure 33: Percentage contribution of factors to the variance in expected salary (%), 2018



*Note: Results obtained using regression-based decomposition according to the Field’s approach (Fields, 2003) where the dependent variable is the log of reservation wages. Regression results are provided in Annex 14 (model 1 without interaction terms). The height of each bar represents the total variation in wages explained by the data used for that regression (coefficient of determination = R2). The subcomponents of each bar show the contribution of each factor (or set of factors) to total wage variation. Family status includes marital status and presence of children, Education and languages = dummy variables for the level of education, number of languages and Romanian as a native language, Work experience= Experience and experience squared, number of employment episodes, currently employed or long-term unemployed, Occupation includes occupation dummies , Sector includes sector dummies, Other characteristics=Type of job (full-time vs. other), availability for business trips and readiness to move to another city.*

**Female job candidates who have on average shorter work experience are more willing to get a flexible work arrangement and are less ready to travel expect to get a lower salary than men do**. This follows from the Oaxaca-Blinder decomposition of the gender gap in expected salary (Table A-14), according to which the desired type of job, availability of job candidates for business trips, and their readiness to relocate form together with work experience are the only factors that positively contribute to the gender gap in expected salary. Perhaps, women understand that there is a trade-off between the wage level and desired job characteristics and they make a rational choice in favour of desired characteristics. Alternatively, in anticipation of employers’ bias against women because of gender and shorter work experience they can intentionally understate salary expectations in order to increase the probability of a job offer.

6. Policy recommendations

The evidence presented in this note suggests that in order to tackle existing gender inequalities in the Moldovan labor market and utilize the available labor resources effectively the Moldovan government should focus on policy levers that:

1. encourage more men and women to participate in the labor force,
2. improve opportunities for women to combine work with family obligations through higher flexibility in work arrangements, provision of high-quality affordable childcare services, and greater equality in unpaid care work,
3. reduce gender pay gap which is partly attributed to segregation of men and women across occupations and types of firms in terms of the size, sector (public or private) and type of employment (formal or informal)...

An additional policy lever should be directed on addressing the multiple challenges faced by parents of three and more children aged below 15 years who predominantly live in rural areas and lack human capital.

Using indicators of gender differences in formal laws and institutions collected by the World Bank “Women, Business and Law” initiative for Moldova[[40]](#footnote-40) and building on the findings of gender reports (e.g. WEF, 2015; World Bank, 2013) and policy papers on female labor force participation, gender-based employment segregation, and fertility (Subramanian et al.; 2018; Das et al., 2018; Pignatti, 2016; Elizarov and Levin, 2015; World Bank, 2015b), we suggest the key areas for changes in Moldova:

* **Improve access to and quality of childcare services and after-school** **activities.** The greater availability of affordable and high-quality childcare services for children of pre-school age (from 0 to 6 years) and extracurricular activities for school-age children can improve female participation in the labor force. It can also reduce the selection of working mothers into lower-paid jobs that allow time flexibility and shorter working hours. Therefore, it is an effective measure to reduce the motherhood penalty in labor force participation, quality of employment, and earnings. Moreover, childcare coverage (the proportion of children under age 3 who are enrolled in formal care services) plays a crucial role for family enlargement (Greulich et al., 2017). If the government cannot provide the sufficient number of places in public kindergartens for all children, it should consider incentivizing the development of quality private childcare facilities and providing childcare subsidies to low-income families who need childcare due to work, work-related training or education. Inclusion of childcare expenses (including kindergartens or day-care centers, after-school centers, and child-minding arrangements) to the list of deductible items in the personal income tax is another policy option.
* **Reduce duration of paid maternity and parental leave.** Currently, the cumulative duration of paid maternity and parental leave available for mothers exceeds three years in Moldova. Extended periods of leave can undermine female labor force participation and opportunities for career advancement and earnings progression (World Bank, 2013, 2015b). They may also result in occupational segregation, as women tend to choose occupations with more generic and easily transferable skills that do not deteriorate during long periods of leave. Besides, women seem to face a motherhood wage penalty, which is directly related to a long career break, and they can be subject to discrimination in hiring and promotion.[[41]](#footnote-41) At the same time, the existing opportunity to stop working for a relatively long period does not seem to have a positive effect on having more children in Moldova (CPD, 2018). Taking into account a non-linear relationship between the length of leave and female employment, a more detailed analysis, including the funding sources of the benefit and linking changes in the duration of leave with the availability of childcare services, is important to determine the optimal length of leave (World Bank, 2015b).
* **Introduce a father’s quota** **for parental leave and counteract traditional gender patterns and gender roles**. Experience of Scandinavian countries shows that father’s quotas help foster a more equitable division of childrearing responsibilities in the family and therefore tackle the existing gender inequalities in employment. In April 2016, Moldova has shown some progress towards eliminating inequalities between fathers and mothers of newborns by introducing paternity leave of up to 14 days (Law № 71). It should also consider introduction of a father’s quota for parental leave, which is the principle that a certain part of the parental leave period can only be taken by the father. However, this policy would not be effective unless social norms and stereotypes about gender and domestic responsibilities are reshaped. CPD (2018) suggests a reform of the parental leave in Moldova with introduction of differentiated coefficients for benefit amounts to be paid to families depending on sector and the duration of leave taken by mother and farther (coefficients grow with an increase in the proportion of the leave taken by fathers).
* **Subsidize training of women after parental leave.** Long periods of parental leave might cause women’s skills to deteriorate. In order to tackle discrimination of young women in hiring, promotion, and earnings related to the skills issue and smooth the transition of mothers from inactivity to employment, it is important to support employers in providing firm-specific training to women who return to work after parental leave. For women with significant previous work experience and relevant skills, such training can take the form of a low-intensity refresher or retraining course, in which returning women get acquainted with the new skills, methods, and processes required to improve their performance on the jobs they did before the leave or on new jobs. Government-subsidized training (e.g. provision of training vouchers) is best targeted at mothers with multiple challenges such as outdated skills, previous experience of long-term unemployment, single-parent responsibilities, and/or low household income.
* **Revise the list of jobs prohibited for women and then disseminate information among employers, educational institutions and women**. Like many other post-Soviet countries, Moldova has a detailed and lengthy list of jobs prohibited for women (World Bank, 2013).[[42]](#footnote-42) For example, there are legal restrictions on women’s employment in transport (trucks, trains, buses, and water transport).[[43]](#footnote-43) There also restrictions on employment of women in mining, energy, construction, and many other sectors and occupations as specified in the Moldova Government’s Decision No. 264 of 6 October 1993. Moreover, additional restrictions on working hours and types of jobs for certain categories of women are specified in the Labor Code, Chapter X. These restrictions limit the range of jobs that women can hold in the formal sector and lead to educational and occupational segregation, with confinement of women to lower-paid activities.
* **Provide timely and relevant gender-specific information on career paths and average earnings in different occupations** **to reduce occupational segregation and information asymmetries in terms of the gender pay gap**. The provision of gender‐specific information on returns to education and occupational wage differentials has the potential to change occupational aspirations of girls and therefore reduce the gender labor market disparities in the future. Taking into account that important career decisions are made quite early in life, career orientation activities that provide useful education and labor market information and help students make good occupational choices are crucial at younger ages, starting in lower secondary school (World Bank, 2016a). Hence, the objective of the newly created Labor Market Observatory (LMO) is to not only to identify and analyze labor market trends and challenges overall, but also provide gender-disaggregated statistics and its analysis.
* **Facilitate part-time and flexible forms of employment and promote work-life balance policies and equality at the workplace**. Many women, especially those who have small children, have to combine work with ongoing care-related responsibilities. This increases female demand in part-time jobs or flexible work arrangements that are very limited in the Moldovan labor market and need to be promoted through changes in the labor law. Another important policy area is to regulate provision of sick leaves (and other fringe benefits) in the case of part-time employment that are especially important for women with small children. Companies can benefit from gender diversity and larger pool of job candidates by making flexible and part-time work opportunities and other work-life balance programmes more widely available. The government’s role is to develop effective partnerships with leading companies which enforce gender neutrality in advertising of jobs and hiring, promote gender equality at work, and address the existing obstacles to creation of more and better part-time jobs.

In view of the aggregate employment decline and very limited availability of decent jobs in Moldova (World Bank 2016b, c), the effectiveness of these supply-side measures in increasing labor force participation and improving labor outcomes of women is limited if they are not accompanied by policies to support creation of more and higher-productivity private sector jobs. World Bank (2016b) specifies three major gaps that the Moldovan government needs to address in order to boost job creation and productivity growth: the input gap (constraints in access to assets and services that limit the use of productive inputs); the regulation gap (additional constraints related to a suboptimal regulatory framework); and the implementation gap (consistent implementation of regulations is distorted by deficiencies in governance).



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Annex I. Methodological issues

## Measures of occupational segregation

There are many approaches to measure occupational segregation that have their advantages and disadvantages and that are appropriate for different purposes (Bridges, 2003). In Chapter 2 we follow the literature in developed countries making use of the three common approaches:

* examine **trends in the gender composition of occupations over time, overall and with a tripartite classification of female-dominated, mixed, and male-dominated occupations**. We follow Burchell et al. (2014) in using the cut-off points of 40 and 60 percent in order to compare Moldova to EU countries. An occupation is defined as female-dominated if the average share of women employed in this occupation in 2014-2016 was 60 percent or more;[[44]](#footnote-44) an occupation is defined as male-dominated if the average share of women employed in this occupation in 2014-2016 was 40 percent or less; and remaining occupations with the female share between 40 and 60 percent are classified as mixed;
* analyze trends in the most popular index of occupational segregation – **the Index of Dissimilarity (ID) based on the methodology developed by Duncan and Duncan** (1955):

, (1)

where *n* is the number of occupations, the subscript *i* denotes the *i*th occupation, *Fi*and *Mi* are the number of female and male workers in occupation *i*, respectively, and *F* and *M* are the total number of female and male workers. This index indicates the proportion of women (men) that would need to change occupations in order to eliminate the difference in occupational distributions. The index has the values from 0 meaning completely identical employment distributions across occupations to 1 (or 100 in percentage terms) corresponding to the extreme situation of complete segregation. Like many other measures, this index of dissimilarity is sensitive to the level of categorization of occupations, with larger values of segregation for the more detailed classification of occupations. For this reason, we present the estimates of the ID for 2- and 3-digit occupations. The index of dissimilarity is the most widely used measure of segregation, especially in the studies of segregation and gender inequality in the US;

* analyze recent trends in the **Karmel and MacLachlan (1988) index (IP)** which is the reference index used to monitor gender equality within the European Union (EGGE, 2009). It is defined as:

, (2)

where *T* is total employment (i.e. *T= F + M),* and the other variables are the same as defined above. The IP index ranges from 0 in the case of complete similarity to the absolute maximum of 50 percent when there are as many women as men in employment working in completely segregated occupations. The IP index can be interpreted as the share of the employed population that would have to relocate with replacement to achieve zero segregation by gender but maintaining the occupational structure and the overall gender shares of employment (EGGE, 2009).

The analysis of trends in gender occupational and educational segregation among all employed persons aged 15 years and older in Chapter 2 uses the LFS individual-level data in 2006-2016. To compare occupations over time we applied a crosswalk between ISCO-88 and ISCO-08 4-digit occupations developed by the NBS and adjusted by us to make one-to-one correspondence for the 2014 occupational reclassification. Hence, if not mentioned otherwise, the analysis is based on ISCO-08 occupations in 2006-2016: occupations transformed from ISCO-88 in 2006-2013, and original occupations reported by respondents in 2014-2016. To ensure data compatibility across years and to minimize reclassification error, the analysis is performed at 2-and 3-digit occupations. Individual sample weights provided in the LFS data are applied to get population-based estimates. Data refer to annual averages.

## Construction of children-related variables based on the LFS data

To examine the effects of children on labor force participation and employment characteristics of mothers and fathers in Moldova we use the individual-level LFS data, limiting the age of individuals to 15-64 years to cover working-age population according to the EU and OECD definitions.

We construct children-related variables – number of children and their age – from the household roster using mother’s and father’s codes attached to all household members. We use information about children under the official age of adulthood in Moldova (18 years). It should be noted that this exercise accounts only for the children living in the household. If, for example, a couple is divorced and a child lives with his/her mother, a farther living separately will be coded as nonfather (unless he has other children living in his current household).

Parents of older (18+) children living in the same household are classified as women or men not having children of the specified age. In addition to using age of the youngest child, we also compare women and men using the number of children of pre-school age (i.e. children in the age from 0 to 6 years) and of non-working age (i.e. children in the age from 0 to 14 years). Taking into account a small number of women with 3 and more children under 7 years in our sample, especially among the employed, we distinguish between women with no children under 7 years, 1 child, and 2 and more children under 7 years. As regards a larger sample of individuals with children under 15 years, we provide statistics for 4 categories: with no children under 15 years, with 1 child, with 2 children, and with 3 and more children under 15 years.

## Labor force participation and employment rates: with and without international migrants

We followed two approaches in the analysis of labor force participation and employment rates: (1) the NBS approach that includes international migrants, counting them as inactive and therefore reducing the labor force and employment rate; and (2) the alternative approach that excludes international migrants reported by household members from the Moldovan population.[[45]](#footnote-45)

An important question that can seriously bias the estimates for labor force participation and employment rates of women is how women on maternity and parental leave are classified – as inactive or as employed but temporarily not working (Mikucka and Valentova, 2013). Based on the analysis of the LFS-2016 sample of Moldovan women with children under 3 years we find that they are predominantly classified as inactive. Out of 1,178 women with small children, only 168 women reported that they had a job or business from which they were absent during the reference week, mainly because of maternity leave (13 cases) or parental leave until a child reaches the age of 3 or 6 years (148 cases). All 13 women on maternity leave were classified as employed by the NBS. On the contrary, the overwhelming majority of women on parental leave (142) were classified as inactive because they told that they would not return to a job within 3 months. Overall, 196 women with small children were classified as employed, but only 19 of them were temporarily not working because of maternity or parental leave.

## Analysis of gender pay gap: data and methodology

Following the conventional literature on gender pay gaps and using the individual-level LFS data, we focus on the analysis of net hourly earnings of employees (i.e. wage and salaried workers) computed by dividing monthly net wages by the number of hours worked during the reference week times 4.28, i.e. assuming that the reference week is a typical week in terms of hours worked.[[46]](#footnote-46) This is preferred to using monthly wages because the number of hours worked by women is often lower than that worked by men (Figure 19), and if this difference in working hours is not taken into account the gender pay gap tends to be larger. In addition, we analyze the differences in monthly wages using a subsample of employees who self-reported working full-time. Blau and Kahn (2017) argues that this sample restriction leads to a relatively homogeneous sample with respect to labor market commitment, allowing more accurate conclusions about the prices women and men face in the labor market. Hourly and monthly wages were then transformed into real wages by dividing them by monthly CPI with the base period in January 2006.

An important issue that should be noted when analyzing wages in post-Soviet countries based on the individual-level survey data is a large share of respondents who refuse to report their wages. The share of such observations with missing wages in the total sample of full-time employees in Moldova in 2010-2016 is 18.4 percent (increasing from 14.6 percent in 2010 to 23.6 percent in 2016). If the sample of employees who refused to report wages for some reason (non-respondents) is similar to the sample of employees reporting their monthly wages (respondents) among measured attributes, findings of the analysis based on the sample of reported wages can be extended to the whole population. Otherwise, the results might be biased and therefore not valid for inference to the whole population. Comparison of the means of key individual characteristics (age, gender, marital status, education, place and region of living) for two samples of full-time employees in Moldova in 2010-2016 reveals significant differences between the two samples: compared to respondents who did not report their wages, employees who reported wages are on average a little older and less educated, are more likely to be women, married, and rural workers and less likely to reside in the Chisinau municipality. The observed dissimilarity in measured characteristics among these two groups of employees can indicate a bias in earnings function parameters attaching to those attributes, and therefore the results presented below should be interpreted with caution.

Although we have the LFS data for 2006-2016, which we used in the previous sections, the analysis of wage gaps is performed for 2010-2016. This restriction is forced by missing variables on monthly wages in 2007 and 2008 and on hours worked during the reference week in 2009. We restrict the sample to working-age employees, i.e. those aged from 15 to 64 years, to exclude possible outliers among older workers and to allow comparison with European countries. As a result of data restrictions (employees, aged 15-64 years, reporting wages and working hours), the sample used for the analysis of gender pay gap and parenthood penalty covers less than half of the initial sample of all employed individuals.[[47]](#footnote-47)

Following the Eurostat definition of gender pay gap [[48]](#footnote-48) but adapting it to the Moldovan LFS data, we define the unadjusted gender wage gap as the difference between the average net hourly/monthly wages of men and women expressed as a percentage of average net hourly/monthly wages of men. It is called unadjusted because it does not take into account different factors that might influence the gender pay gap, including education, work experience, sector, occupation, and other job characteristics.

Similar to Blau and Kahn (2017), we also estimate the adjusted gap in mean hourly earnings between male and female workers in 2010 and 2016 and then apply the Binder-Oaxaca decomposition of the gap into explained and unexplained parts using two main specifications of the Mincerian wage regressions: (1) so-called human capital specification that controls for education, experience (proxied by age), region, and urban-rural area; and (2) full specification which, in addition to the above mentioned variables, includes dummies for 1-digit ISCO occupation, economic activity (11 sectors), part-time employment, firm size, public sector, and informal employment. Unlike Blau and Kahn (2017),[[49]](#footnote-49) we also add marital status and number of children to both specifications as we are interested in the contribution of children to the explained gender wage gap.

## Construction of the dataset for the analysis of job seeker profiles

To explore whether observed gender differences are shaped by different labor market aspirations and expectations, additional analysis was carried out based on information from job seeker profiles (resumes) posted at one of the largest online job search portals in Moldova. Each profile in the scraped dataset includes a number of elements, self-reported (unless specified otherwise):

* a photo and the date of profile registration (recorded by the portal);
* city, gender, age, the level of education, marital status (married/unmarried), presence of children (yes/no), and work experience in years and months;
* desired sector (based on the portal’s sector classification) and occupation (i.e. job title reported in a free manner), expected salary, the desired type of work (full-time, part-time, shift or distance work), availability for business trips, willingness to relocate to another city;
* education history including the number of education episodes, details about the last education episode (the name of educational institution, department and the field of studies, the year of graduation), and the end year of previous education episode;
* employment history including the number of employment episodes and some details about the last employment episode (years of its beginning and end, job title and company name);
* proficiency in languages, skills (reported in a free manner),
* driving license and availability of a private car.

The majority of important elements, including age, gender, marital status of jobseekers, presence of children, educational attainment, work experience, and expected salary (reported either as numerical values or as “negotiable”), are reported by almost all job candidates, making the dataset particularly suitable for the analysis of gender issues in the Moldovan labor market.

According to NBS statistics (2017) based on the LFS data, unemployed job seekers in Moldova rarely register with private employment agencies or place their “job wanted” ads (0 and 7,700 out of 50,200 unemployed, respectively, in 2016), preferring to use personal connections (relatives, friends or colleagues), to contact employers directly or to answer job ads. Hence, our analysis presented in Chapter 5 covers a very specific group of job seekers who have more developed digital job-seeking skills and who actively utilize online resources along with traditional personal networks and direct contacts with employers to look for and apply to jobs. A study of US job seekers can be informative as to which populations we can expect to be overrepresented in our sample of scraped CVs: youth, urban and suburban residents, and individuals with higher levels of income and educational attainment are more likely to engage in online job seeking behaviors than other job seekers (Smith, 2015).

The initial dataset included 34,155 resumes posted during December 2005 – July 2018. In order to avoid analysis of potentially inactive resumes, on the one hand, and to reduce time costs of translation and codification of occupations and fields of studies, on the other hand, we reduced the sample to recent resumes posted in January-June 2018 and excluded 30 profiles with unspecified gender.

Text information about occupation and education was provided by job seekers either in Romanian or in Russian, and rarely in English (for IT professions). All occupations have been translated into English and matched with 4- or 3-digit ISCO-08 code. Fields of studies for the last education episode have been matched with 2- or 3-digit ISCED-F 2013 code. As Stata does not recognize some letters in Cyrillic, translation and codification has been done manually in Excel.

The final sample used in our analysis contains 4,824 job seeker profiles, with 1,949 (or 40.4 percent) profiles from female applicants. Over 26 percent of resumes from female applicants and about 25 percent of resumes from male applicants are recent relative to the time of the scraping exercise (posted in June or early July). The remaining resumes have been posted in January-May without notable seasonal variations. Checking links to randomly selected resumes from our dataset shows that some links became unavailable a month later meaning that either job seekers or a job portal moderator removed these resumes from the job portal.[[50]](#footnote-50)

Annex II. Additional tables

Table A-1: Female share in STEM occupations in Moldova, Ukraine, and EU, 2010 and 2013

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2-digit occupation (ISCO-88)** | **Year** | **Moldova** | **Ukraine** | **EU-26** |
| 21. Engineering and computing professionals | 2010 | 27.9 | 28.3 | 18.3 |
| 2013 | 21.3 | 22.7 | n.a. |
| 31. Engineering and computing technicians | 2010 | 28.2 | 26.3 | 20.6 |
| 2013 | 24.8 | 27.3 | n.a. |

*Sources: Author’s calculations based of the individual-level LFS data for Moldova and Ukraine, Burchell et al. (2014, Figure 15) for EU-26 (excluding Malta and Croatia).*

Table A-2: Classification of 2-digit ISCO occupations into female-/male-dominated and mixed occupations based on the LFS data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occupation** | **ISCO-08 code** | **Female share, average in 2014-2016 (%)** | **Type of occupation\*** | **Share of occupation in total employment in 2016 (%)** | |
| **Women** | **Men** |
| Commissioned armed forces officers | 1 | 4.5 | MD | 0.04 | 0.89 |
| Chief executives, senior officials and legislators | 11 | 45.2 | M | 0.66 | 0.83 |
| Administrative and commercial managers | 12 | 65.4 | FD | 1.55 | 0.9 |
| Production and specialised services managers | 13 | 37.0 | MD | 1.79 | 2.9 |
| Hospitality, retail and other services managers | 14 | 43.8 | M | 2.49 | 2.84 |
| Science and engineering professionals | 21 | 34.7 | MD | 1.32 | 2.43 |
| Health professionals | 22 | 68.7 | FD | 1.62 | 1.18 |
| Teaching professionals | 23 | 82.9 | FD | 7.5 | 1.58 |
| Business and administration professionals | 24 | 80.7 | FD | 5.15 | 1.07 |
| Information and communications technology professionals | 25 | 16.3 | MD | 0.18 | 1.09 |
| Legal, social and cultural professionals | 26 | 59.9 | M | 2.47 | 1.87 |
| Science and engineering associate professionals | 31 | 28.1 | MD | 0.52 | 1.26 |
| Health associate professionals | 32 | 92.4 | FD | 3.92 | 0.4 |
| Business and administration associate professionals | 33 | 52.4 | M | 2.57 | 2.23 |
| Legal, social, cultural and related associate professionals | 34 | 62.3 | FD | 0.82 | 0.42 |
| Information and communications technicians | 35 | 23.1 | MD | 0.12 | 0.29 |
| General and keyboard clerks | 41 | 89.9 | FD | 0.76 | 0.14 |
| Customer services clerks | 42 | 73.7 | FD | 1.13 | 0.43 |
| Numerical and material recording clerks | 43 | 59.6 | M | 0.78 | 0.72 |
| Other clerical support workers | 44 | 96.7 | FD | 0.87 | 0.04 |
| Personal service workers | 51 | 73.7 | FD | 4.42 | 1.61 |
| Sales workers | 52 | 75.2 | FD | 11.37 | 4.28 |
| Personal care workers | 53 | 98.6 | FD | 3.85 | 0.04 |
| Protective services workers | 54 | 5.1 | MD | 0.06 | 1.85 |
| Market-oriented skilled agricultural workers | 61 | 46.0 | M | 11.90 | 12.72 |
| Market-oriented skilled forestry, fishery and hunting workers | 62 | 7.9 | MD | 0.03 | 0.11 |
| Subsistence farmers, fishers, hunters and gatherers | 63 | 47.6 | M | 13.62 | 14.03 |
| Building and related trades workers, excluding electricians | 71 | 6.6 | MD | 0.57 | 8.09 |
| Metal, machinery and related trades workers | 72 | 1.2 | MD | 0.03 | 3.69 |
| Handicraft and printing workers | 73 | 53.5 | M | 0.26 | 0.12 |
| Electrical and electronic trades workers | 74 | 19.9 | MD | 0.73 | 2.36 |
| Food processing, wood working, garment and other craft and related trades workers | 75 | 77.7 | FD | 5 | 1.71 |
| Stationary plant and machine operators | 81 | 44.9 | M | 0.73 | 1.02 |
| Assemblers | 82 | 48.3 | M | 0.1 | 0.1 |
| Drivers and mobile plant operators | 83 | 1.1 | MD | 0.11 | 10.74 |
| Cleaners and helpers | 91 | 95.8 | FD | 4.48 | 0.18 |
| Agricultural, forestry and fishery laborers | 92 | 44.4 | M | 4.19 | 5.53 |
| Laborers in mining, construction, manufacturing and transport | 93 | 25.3 | MD | 1.04 | 2.86 |
| Food preparation assistants | 94 | 96.9 | FD | 0.42 | 0.01 |
| Street and related sales and service workers | 95 | 53.6 | M | 0.03 | 0.02 |
| Refuse workers and other elementary workers | 96 | 16.6 | MD | 0.78 | 5.4 |

*Source: Author’s calculations based of the individual-level Moldova LFS data (with sample weights).*

*Note: FD=female-dominated (female share >=60%), M= mixed (female share from 40 to 60%), MD=male-dominated (female share <=40%).*

Table A-3: Index of dissimilarity in Ukraine, 2006, 2010 and 2013

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2006** | **2010** | **2013** |
| Employed of all employment statuses | 0.58 | 0.59 | 0.62 |
| Employees | 0.59 | 0.61 | 0.63 |
| Formal employment | 0.58 | 0.59 | 0.60 |
| Informal employment | 0.64 | 0.69 | 0.74 |
| Secondary education and below (general and vocational schools) | 0.64 | 0.67 | 0.69 |
| Post-secondary and tertiary education (colleges and universities) | 0.51 | 0.52 | 0.54 |

*Source: Author’s calculations based of the individual-level Ukraine LFS data.*

*Note: Based on ISCO-88 3-digit occupations. Population aged 15-70 years.*

Table A-4: Employment by sector and by gender (%), 2017

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Urban and rural** | | | | **Urban** | | | | |
|  | Female share | Women | Men | Total | Female share | Women | Men | Total |
| Agriculture, forestry; Fishery | 42.9 | 28.0 | 36.6 | 32.3 | 38.6 | 3.1 | 5.0 | 4.1 |
| Industry | 48.5 | 11.7 | 12.2 | 12.0 | 46.7 | 15.4 | 18.3 | 16.8 |
| Construction | 8.7 | 0.8 | 8.5 | 4.7 | 11.5 | 1.2 | 10.0 | 5.5 |
| Trade; Hotels and restaurants | 56.7 | 19.8 | 14.8 | 17.3 | 56.3 | 30.9 | 25.0 | 28.0 |
| Transportation, Communications | 28.8 | 3.5 | 8.5 | 6.0 | 29.8 | 5.9 | 14.4 | 10.1 |
| Public administration; Education; Health and social work | 70.9 | 27.7 | 11.2 | 19.4 | 70.6 | 30.1 | 13.1 | 21.7 |
| Other | 50.6 | 8.5 | 8.1 | 8.3 | 49.7 | 13.4 | 14.1 | 13.8 |
| **Total** | **49.5** | **100.0** | **100.0** | **100.0** | **51.0** | **100.0** | **100.0** | **100.0** |

*Source: Author’s calculations based on the NBS online databank, Series: Employed population by economic activities, years, sex, area, level of educations and age groups*

Table A-5: Employment by occupation and by gender (%), 2017

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Urban and rural** | | | | **Urban** | | | | |
|  | Female share | Women | Men | Total | Female share | Women | Men | Total |
| Legislators, senior officials and managers | 42.0 | 5.5 | 7.5 | 6.6 | 39.8 | 8.6 | 13.5 | 11.0 |
| Professionals | 67.5 | 18.9 | 8.9 | 13.9 | 65.1 | 28.4 | 15.8 | 22.3 |
| Technicians and associate professionals | 63.9 | 8.6 | 4.8 | 6.7 | 60.1 | 11.3 | 7.8 | 9.6 |
| Clerks | 72.3 | 3.6 | 1.4 | 2.5 | 68.2 | 5.3 | 2.6 | 4.0 |
| Service workers and shop and market sales workers | 71.3 | 20.7 | 8.2 | 14.4 | 70.7 | 28.3 | 12.2 | 20.4 |
| Skilled agricultural and fishery workers | 46.8 | 23.9 | 26.7 | 25.3 | 47.0 | 2.2 | 2.6 | 2.4 |
| Craft and related trades workers | 30.9 | 6.9 | 15.2 | 11.1 | 27.7 | 7.6 | 20.4 | 13.9 |
| Plant and machine operators, and assemblers | 6.5 | 1.0 | 13.6 | 7.3 | 6.4 | 1.0 | 15.7 | 8.2 |
| Elementary occupations | 43.4 | 10.7 | 13.8 | 12.3 | 44.9 | 7.3 | 9.3 | 8.3 |
| **Total** | **49.5** | **100.0** | **100.0** | **100.0** | **51.0** | **100.0** | **100.0** | **100.0** |

*Source: Author’s calculations based on the NBS online databank, Series: Employed population by occupations, years, sex, area, level of educations and age groups*

Table A-6: Female share and composition of university-educated male and female workers (25+ years) by the field of studies (%), 2014-2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2-digit ISCO-based field of studies** | **Female share** | | | **Men, by field of studies** | | | **Women, by field of studies** | | |
| **2014** | **2015** | **2016** | **2014** | **2015** | **2016** | **2014** | **2015** | **2016** |
| 24. Business and administration professionals | 68.4 | 78.4 | 81.0 | 14.5 | 6.6 | 6.3 | 25.3 | 18.9 | 20.2 |
| 23. Teaching professionals | 78.1 | 74.7 | 76.3 | 11.4 | 13.9 | 12.8 | 32.7 | 32.1 | 31.0 |
| 12. Administrative and commercial managers | 60.9 | 65.4 | 66.7 | 3.9 | 2.4 | 2.3 | 4.9 | 3.5 | 3.5 |
| 22. Health professionals | 61.3 | 68.6 | 58.6 | 6.7 | 5.0 | 6.3 | 8.5 | 8.6 | 6.8 |
| 26. Legal, social and cultural professionals | 50.7 | 50.7 | 52.0 | 15.5 | 23.3 | 22.9 | 12.8 | 18.8 | 18.7 |
| 14. Hospitality, retail and other services managers | 29.5 | 33.0 | 45.1 | 7.2 | 5.7 | 6.4 | 2.4 | 2.2 | 4.0 |
| 13. Production and specialised services managers | 33.3 | 38.1 | 40.5 | 5.6 | 5.5 | 6.8 | 2.3 | 2.6 | 3.5 |
| 11. Chief executives, senior officials and legislators | 31.1 | 47.7 | 39.4 | 2.2 | 2.2 | 2.9 | 0.8 | 1.6 | 1.4 |
| 21. Science and engineering professionals | 30.1 | 31.0 | 31.6 | 27.0 | 30.3 | 26.5 | 9.4 | 10.7 | 9.2 |
| 25. Information and communications technology professionals | 16.7 | 23.5 | 27.3 | 5.1 | 4.1 | 5.7 | 0.8 | 1.0 | 1.6 |
| 1. Commissioned armed forces officers | 7.1 | 10.2 | 12.1 | 1.1 | 0.8 | 1.0 | 0.1 | 0.1 | 0.1 |

Table A-7: Time use indicators for working-age population by gender, age groups and selected activities, 2012

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Men** | | | | **Women** | | | |
| **15-24 years** | | **25-64 years** | | **15-24 years** | | **25-64 years** | |
| Average daily duration of activity, all persons, hours/day | Participation rate, % | Average daily duration of activity, all persons, hours/day | Participation rate, % | Average daily duration of activity, all persons, hours/day | Participation rate, % | Average daily duration of activity, all persons, hours/day | Participation rate, % |
| Employment | 2.1 | 28.6 | 4.6 | 55.2 | 1.3 | 16.9 | 3.5 | 46.8 |
| Study | 1.6 | 26.8 | 0 | 0.4 | 2.2 | 37.2 | 0 | 0.4 |
| Household and family care | 1.9 | 80.1 | 2.8 | 82.4 | 3.4 | 93.2 | 5.1 | 98.3 |
| Food preparation, baking and preserving | 0.2 | 21.7 | 0.3 | 27.1 | 0.7 | 60.5 | 1.5 | 89.7 |
| Household upkeep | 0.5 | 41.9 | 0.7 | 45.7 | 0.7 | 64.6 | 0.9 | 67.5 |
| Gardening and pet care | 0.6 | 32.7 | 0.9 | 39.2 | 0.3 | 19.8 | 0.7 | 36.5 |
| Dish washing | 0.1 | 23.6 | 0.1 | 22.4 | 0.4 | 66.5 | 0.6 | 77.9 |
| Childcare | 0 | 5.2 | 0.2 | 14.6 | 0.7 | 18.9 | 0.6 | 27.2 |
| Cleaning dwelling | 0.1 | 12.5 | 0.1 | 13.2 | 0.5 | 50.4 | 0.5 | 53.5 |
| Shopping and services | 0.2 | 28.7 | 0.3 | 30 | 0.2 | 32.5 | 0.3 | 37.8 |
| Laundry | 0 | 0 | 0 | 2.2 | 0.3 | 20.1 | 0.3 | 26.7 |
| Heating and water | 0.2 | 17.9 | 0.4 | 23.4 | 0.1 | 10.7 | 0.1 | 17.7 |
| Voluntary work and meetings | 0.2 | 8.6 | 0.4 | 12.9 | 0.2 | 7.8 | 0.4 | 16.1 |
| Social life and entertainment | 1.4 | 70.2 | 1 | 71 | 1.1 | 66.5 | 0.8 | 63.2 |
| Sports and outdoor activities | 0.8 | 35.8 | 0.3 | 15.2 | 0.6 | 34.4 | 0.2 | 15 |
| Hobbies and computing | 1.4 | 51.7 | 0.3 | 16.8 | 1 | 50.9 | 0.2 | 13 |
| Mass media | 1.8 | 76.8 | 2.4 | 85.5 | 1.6 | 79.2 | 1.9 | 84.7 |
| Travel | 1.4 | 88.8 | 1.2 | 85.6 | 1.3 | 84.9 | 1 | 79.1 |

*Source: NBS, Time Use Survey-2012*

Table A-8: Profile of Moldovan women (15-64 years) by the number of children under 15 years, 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **No children under 15 years** | **1 child** | **2 children** | **3 and more children** |
| Age | 42.857 | 33.556\*\*\* | 32.352\*\*\* | 33.340\*\*\* |
| *Marital status* |  |  |  |  |
| Single | 0.296 | 0.047\*\*\* | 0.014\*\*\* | 0.003\*\*\* |
| Married | 0.480 | 0.764\*\*\* | 0.870\*\*\* | 0.839\*\*\* |
| Widowed | 0.117 | 0.019\*\*\* | 0.013\*\*\* | 0.017\*\*\* |
| Divorced | 0.079 | 0.117\*\*\* | 0.063\* | 0.060 |
| Cohabitating | 0.026 | 0.053\*\*\* | 0.041\*\* | 0.081\*\*\* |
| *Education* |  |  |  |  |
| Primary and less | 0.029 | 0.004\*\*\* | 0.005\*\*\* | 0.002\*\*\* |
| Lower secondary | 0.215 | 0.234 | 0.296\*\*\* | 0.477\*\*\* |
| Upper secondary general | 0.260 | 0.205\*\*\* | 0.198\*\*\* | 0.186\*\*\* |
| Upper secondary vocational | 0.149 | 0.139 | 0.159 | 0.161 |
| Post-secondary (college) | 0.170 | 0.128\*\*\* | 0.097\*\*\* | 0.068\*\*\* |
| Tertiary (university) | 0.177 | 0.290\*\*\* | 0.245\*\*\* | 0.106\*\*\* |
| *Place of residence* |  |  |  |  |
| Urban | 0.459 | 0.506\*\*\* | 0.401\*\*\* | 0.236\*\*\* |
| Rural | 0.541 | 0.494\*\*\* | 0.599\*\*\* | 0.764\*\*\* |
| *Region* |  |  |  |  |
| North | 0.277 | 0.299 | 0.282 | 0.272 |
| Center | 0.287 | 0.269 | 0.309 | 0.335 |
| South | 0.197 | 0.170\*\* | 0.199 | 0.257\* |
| Chisinau | 0.239 | 0.262 | 0.210 | 0.136\*\* |
| *Labor force status* |  |  |  |  |
| Inactive | 0.564 | 0.471\*\*\* | 0.528\* | 0.639\*\* |
| Employed | 0.422 | 0.518\*\*\* | 0.459\* | 0.353\*\* |
| Unemployed | 0.015 | 0.011 | 0.013 | 0.008 |
| N in the unweighted sample | 14,144 | 3,030 | 1,852 | 455 |
| Share of all women (15-64 years) in the weighted sample (%) | 65.2 | 19.7 | 12.4 | 2.7 |

*Note: Means of variables after the svy command (with sample weights) and are shown in the Table. \*\*\* (\*\*/\*) denotes statistically significant difference between women with 1, 2, 3 and more children compared to women with no children under 15 years at 1% (5%/10%).*

Table A-9: Labor force participation and employment rates of women and men (15-64 years) by the number of children under 7 and 15 years (%), 2016

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Women** | | | | **Men** | | | | **Gender gap** | |
|  | Including international migrants (NBS approach) | | Excluding international migrants (alternative approach) | | Including international migrants (NBS approach) | | Excluding international migrants (alternative approach) | | Excluding international migrants (alternative approach) | |
|  | LFPR | ER | LFPR | ER | LFPR | ER | LFPR | ER | LFPR | ER |
| **Children under 7 years** |  |  |  |  |  |  |  |  |  |  |
| No children under 7 years | 47.9 | 46.4 | 53.3 | 51.6 | 46.1 | 43.4 | 54.9 | 51.8 | 1.7 | 0.2 |
| 1 child | 41.8\*\*\* | 40.8\*\*\* | 43.6\*\*\* | 42.6\*\*\* | 60.7\*\*\* | 57.6\*\*\* | 77.5\*\*\* | 73.5\*\*\* | 33.9 | 30.9 |
| 2 and more children | 23.6\*\*\* | 23.1\*\*\* | 24.2\*\*\* | 23.7\*\*\* | 59.3\*\*\* | 56.1\*\*\* | 77.8\*\*\* | 73.6\*\*\* | 53.5 | 49.9 |
| **Children under 15 years** |  |  |  |  |  |  |  |  |  |  |
| No children under 15 years | 43.6 | 42.2 | 48.7 | 47.1 | 43.7 | 41.0 | 51.9 | 48.7 | 3.2 | 1.6 |
| 1 child | 52.9\*\*\* | 51.8\*\*\* | 56.8\*\*\* | 55.6\*\*\* | 63.3\*\*\* | 60.4\*\*\* | 78.6\*\*\* | 75.1\*\*\* | 21.8 | 19.5 |
| 2 children | 47.2\* | 45.9 | 49.3\* | 47.9 | 58.4\*\*\* | 55.3\*\*\* | 75.8\*\*\* | 71.7\*\*\* | 26.5 | 23.9 |
| 3 and more children | 36.1\*\* | 35.3\*\*\* | 37.0\*\* | 36.2\*\*\* | 62.8\*\* | 58.6\*\*\* | 78.0\*\* | 72.7\*\*\* | 41.0 | 36.5 |
| **Total** | 45.7 | 44.3 | 50.1 | 48.6 | 48.8 | 46.0 | 59.0 | 55.7 | 9.0 | 7.1 |

*Note: \*\*\* (\*\*/\*) denotes statistically significant difference between men/women with 1, 2, 3 and more children compared to those with no children under 7 or 15 years at 1% (5%/10%).*

Table A-10: Determinants of labor force participation of women and men (15-64 years): probit model, 2009-2016

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Women** | | | | **Men** | | | |
|  | **(1a)** | **(1b)** | **(2a)** | **(2b)** | **(1a)** | **(1b)** | **(2a)** | **(2b)** |
| *Number of children under 7 years* |  |  |  |  |  |  |  |  |
| 1 child under 7 years | -0.460\*\*\* | -0.644\*\*\* |  |  | 0.010 | 0.063\*\*\* |  |  |
|  | (0.023) | (0.023) |  |  | (0.016) | (0.018) |  |  |
| 2 and more children under 7 years | -0.879\*\*\* | -1.090\*\*\* |  |  | 0.119\*\*\* | 0.183\*\*\* |  |  |
| (0.039) | (0.040) |  |  | (0.031) | (0.033) |  |  |
| *Age of the youngest child* |  |  |  |  |  |  |  |  |
| 0-2 years |  |  | -1.216\*\*\* | -1.456\*\*\* |  |  | 0.021 | 0.100\*\*\* |
|  |  |  | (0.036) | (0.036) |  |  | (0.021) | (0.025) |
| 3-6 years |  |  | -0.047\* | -0.218\*\*\* |  |  | -0.052\*\* | -0.002 |
|  |  |  | (0.025) | (0.027) |  |  | (0.024) | (0.026) |
| 7-14 years |  |  | 0.060\*\*\* | -0.014 |  |  | -0.075\*\*\* | -0.068\*\*\* |
|  |  |  | (0.020) | (0.023) |  |  | (0.018) | (0.019) |
| 15-17 years |  |  | -0.023 | 0.036 |  |  | -0.141\*\*\* | -0.108\*\*\* |
|  |  |  | (0.023) | (0.025) |  |  | (0.024) | (0.027) |
| Respondent's age | 0.217\*\*\* | 0.261\*\*\* | 0.203\*\*\* | 0.247\*\*\* | 0.108\*\*\* | 0.152\*\*\* | 0.113\*\*\* | 0.156\*\*\* |
|  | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) |
| Age squared (divided by 100) | -0.268\*\*\* | -0.325\*\*\* | -0.251\*\*\* | -0.311\*\*\* | -0.125\*\*\* | -0.189\*\*\* | -0.132\*\*\* | -0.195\*\*\* |
|  | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) | (0.006) |
| Married | 0.211\*\*\* | 0.125\*\*\* | 0.255\*\*\* | 0.195\*\*\* | 0.359\*\*\* | 0.404\*\*\* | 0.400\*\*\* | 0.435\*\*\* |
|  | (0.028) | (0.028) | (0.028) | (0.029) | (0.021) | (0.024) | (0.022) | (0.025) |
| Widowed | 0.130\*\*\* | 0.057\*\* | 0.170\*\*\* | 0.122\*\*\* | 0.187\*\*\* | 0.143\*\*\* | 0.216\*\*\* | 0.165\*\*\* |
|  | (0.028) | (0.028) | (0.028) | (0.029) | (0.035) | (0.039) | (0.035) | (0.039) |
| Divorced | 0.107\*\*\* | 0.108\*\*\* | 0.124\*\*\* | 0.152\*\*\* | 0.126\*\*\* | -0.001 | 0.136\*\*\* | 0.006 |
|  | (0.028) | (0.031) | (0.029) | (0.032) | (0.028) | (0.031) | (0.028) | (0.031) |
| Cohabitating | 0.287\*\*\* | 0.152\*\*\* | 0.336\*\*\* | 0.225\*\*\* | 0.503\*\*\* | 0.462\*\*\* | 0.533\*\*\* | 0.486\*\*\* |
|  | (0.044) | (0.046) | (0.045) | (0.046) | (0.041) | (0.045) | (0.041) | (0.045) |
| Lower secondary | 0.678\*\*\* | 0.800\*\*\* | 0.681\*\*\* | 0.798\*\*\* | 0.526\*\*\* | 0.703\*\*\* | 0.520\*\*\* | 0.699\*\*\* |
|  | (0.051) | (0.053) | (0.050) | (0.052) | (0.044) | (0.045) | (0.044) | (0.045) |
| Upper secondary general | 0.639\*\*\* | 0.786\*\*\* | 0.656\*\*\* | 0.798\*\*\* | 0.480\*\*\* | 0.706\*\*\* | 0.473\*\*\* | 0.700\*\*\* |
|  | (0.055) | (0.058) | (0.054) | (0.057) | (0.049) | (0.049) | (0.049) | (0.049) |
| Upper secondary vocational | 0.824\*\*\* | 1.020\*\*\* | 0.848\*\*\* | 1.039\*\*\* | 0.750\*\*\* | 1.029\*\*\* | 0.742\*\*\* | 1.023\*\*\* |
|  | (0.056) | (0.059) | (0.055) | (0.058) | (0.047) | (0.047) | (0.047) | (0.047) |
| Post-secondary | 0.978\*\*\* | 1.194\*\*\* | 1.008\*\*\* | 1.220\*\*\* | 0.722\*\*\* | 0.991\*\*\* | 0.715\*\*\* | 0.985\*\*\* |
|  | (0.054) | (0.058) | (0.054) | (0.057) | (0.045) | (0.047) | (0.045) | (0.047) |
| Tertiary | 1.252\*\*\* | 1.468\*\*\* | 1.305\*\*\* | 1.524\*\*\* | 1.116\*\*\* | 1.404\*\*\* | 1.105\*\*\* | 1.396\*\*\* |
|  | (0.055) | (0.059) | (0.054) | (0.057) | (0.046) | (0.047) | (0.047) | (0.047) |
| Urban | -0.066\*\* | -0.140\*\*\* | -0.061\*\* | -0.138\*\*\* | -0.033 | -0.110\*\*\* | -0.037 | -0.114\*\*\* |
|  | (0.026) | (0.030) | (0.027) | (0.030) | (0.025) | (0.029) | (0.025) | (0.029) |
| Center | -0.094\*\* | -0.054 | -0.094\*\* | -0.053 | -0.005 | -0.025 | -0.004 | -0.025 |
|  | (0.036) | (0.041) | (0.037) | (0.042) | (0.037) | (0.039) | (0.037) | (0.039) |
| South | -0.209\*\*\* | -0.120\*\*\* | -0.204\*\*\* | -0.109\*\* | -0.154\*\*\* | -0.143\*\*\* | -0.154\*\*\* | -0.143\*\*\* |
|  | (0.038) | (0.042) | (0.039) | (0.043) | (0.041) | (0.044) | (0.041) | (0.045) |
| Chisinau | 0.095\*\*\* | 0.054 | 0.106\*\*\* | 0.065\* | 0.482\*\*\* | 0.384\*\*\* | 0.480\*\*\* | 0.382\*\*\* |
|  | (0.035) | (0.038) | (0.036) | (0.038) | (0.034) | (0.040) | (0.034) | (0.040) |
| Constant | -4.831\*\*\* | -5.472\*\*\* | -4.615\*\*\* | -5.253\*\*\* | -2.985\*\*\* | -3.562\*\*\* | -3.055\*\*\* | -3.620\*\*\* |
|  | (0.092) | (0.093) | (0.094) | (0.096) | (0.080) | (0.083) | (0.082) | (0.085) |
| N cases | 268,124 | 243,664 | 268,124 | 243,664 | 253,161 | 212,543 | 253,161 | 212,543 |

*Note: Dependent variable is a dummy variable for being in the labor force. Specifications a) include all individuals aged 15-64 years; specifications b) exclude international migrants (which are classified by NBS as inactive). Standard errors in parentheses, estimated with the svy command using clusters and sample weights. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Reference categories: No children under 7 years; No children under 18 years; Single; Primary education and less; Rural; North. Year dummies are included in all specifications.*

Table A-11: Determinants of self-employment and informal employment of women (15-64 years): probit model, 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Self-employment** | | | **Informal employment** | | |
|  | All | Urban | Rural | All | Urban | Rural |
| *Age of the youngest child* |  |  |  |  |  |  |
| 0-2 years | 0.077 | 0.302 | -0.069 | 0.304\*\* | 0.015 | 0.376\*\* |
|  | (0.135) | (0.256) | (0.148) | (0.133) | (0.239) | (0.168) |
| 3-6 years | 0.065 | -0.054 | 0.095 | 0.043 | -0.060 | 0.062 |
|  | (0.096) | (0.188) | (0.108) | (0.082) | (0.134) | (0.106) |
| 7-14 years | 0.089 | 0.185 | 0.029 | 0.031 | 0.149 | -0.025 |
|  | (0.072) | (0.134) | (0.083) | (0.072) | (0.130) | (0.081) |
| 15-17 years | -0.014 | -0.048 | -0.021 | 0.125 | 0.209 | 0.091 |
| (0.098) | (0.173) | (0.114) | (0.103) | (0.165) | (0.121) |
| Respondent's age | -0.027 | 0.007 | -0.055\*\*\* | -0.071\*\*\* | -0.004 | -0.119\*\*\* |
|  | (0.017) | (0.034) | (0.018) | (0.019) | (0.035) | (0.021) |
| Age squared (divided by 100) | 0.047\*\* | -0.003 | 0.083\*\*\* | 0.092\*\*\* | 0.006 | 0.149\*\*\* |
|  | (0.020) | (0.041) | (0.022) | (0.021) | (0.042) | (0.023) |
| Married | -0.003 | -0.138 | 0.221 | -0.217 | -0.464\*\*\* | 0.150 |
|  | (0.127) | (0.167) | (0.147) | (0.137) | (0.167) | (0.163) |
| Widowed | 0.258 | 0.179 | 0.476\*\*\* | -0.129 | -0.284 | 0.211 |
|  | (0.160) | (0.251) | (0.175) | (0.166) | (0.240) | (0.199) |
| Divorced | 0.063 | -0.208 | 0.462\*\*\* | -0.193 | -0.491\*\* | 0.258 |
|  | (0.154) | (0.214) | (0.173) | (0.161) | (0.215) | (0.198) |
| Cohabitating | 0.120 | 0.013 | 0.341\* | 0.070 | -0.074 | 0.319\* |
|  | (0.179) | (0.282) | (0.204) | (0.192) | (0.316) | (0.189) |
| Upper secondary general | -0.129\*\* | -0.083 | -0.138\*\* | -0.274\*\*\* | -0.300\* | -0.264\*\*\* |
|  | (0.064) | (0.167) | (0.066) | (0.059) | (0.152) | (0.065) |
| Upper secondary vocational | -0.266\*\*\* | -0.200 | -0.266\*\* | -0.535\*\*\* | -0.532\*\*\* | -0.509\*\*\* |
|  | (0.086) | (0.157) | (0.103) | (0.081) | (0.170) | (0.094) |
| Post-secondary | -0.727\*\*\* | -0.570\*\*\* | -0.803\*\*\* | -1.039\*\*\* | -0.925\*\*\* | -1.095\*\*\* |
|  | (0.086) | (0.185) | (0.089) | (0.090) | (0.223) | (0.098) |
| Tertiary | -1.050\*\*\* | -0.803\*\*\* | -1.353\*\*\* | -1.475\*\*\* | -1.334\*\*\* | -1.638\*\*\* |
|  | (0.100) | (0.173) | (0.132) | (0.106) | (0.201) | (0.127) |
| Urban | -0.341\*\*\* |  |  | -0.989\*\*\* |  |  |
|  | (0.096) |  |  | (0.131) |  |  |
| Center | 0.025 | -0.292 | 0.137 | -0.399\*\*\* | -0.242 | -0.457\*\*\* |
|  | (0.111) | (0.205) | (0.127) | (0.127) | (0.285) | (0.139) |
| South | -0.132 | -0.501\*\*\* | 0.054 | -0.591\*\*\* | -0.454 | -0.642\*\*\* |
|  | (0.167) | (0.172) | (0.219) | (0.183) | (0.314) | (0.221) |
| Chisinau | -0.505\*\*\* | -0.690\*\*\* | -0.371\*\*\* | -0.321\*\* | -0.168 | -0.797\*\*\* |
|  | (0.120) | (0.137) | (0.118) | (0.149) | (0.207) | (0.103) |
| Constant | 0.142 | -0.525 | 0.372 | 2.155\*\*\* | 0.010 | 2.849\*\*\* |
|  | (0.331) | (0.663) | (0.369) | (0.361) | (0.727) | (0.402) |
| N\_cases | 8463 | 3034 | 5429 | 8463 | 3034 | 5429 |

*Note: Dependent variable “Self-employment” is a dummy variable equal to 1 for own-account workers and employers, and 0 for employed women of other statuses. Dependent variable “Informal employment” is a dummy variable equal to 1 for informally employed female workers (all employment statuses), and 0 for formally employed women. Standard errors in parentheses, estimated with the svy command using clusters and sample weights. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Reference categories: No children under 18 years; Single; Lower secondary education and less; Rural; North.*

Table A-12: Urban female workers (15-64 years) by employment status, number of children under 15 years and age of the youngest child (%), 2016

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Number of children under 15 years** | | | | **Age of youngest child** | | | | | **Total** |
| **Only urban** | 1 child | 2 children | 3 and more children | No children under 15 years | 0-2 years | 3-6 years | 7-14 years | 15-17 years | No children under 18 years |
| Employees, formal | 83.3 | 82.8 | 60.7 | 84.2 | 83.9 | 86.3 | 79.3 | 80.6 | 84.5 | 83.6 |
| Employees, informal | 3.4 | 5.5 | 20.2 | 4.4 | 0.9 | 4.7 | 5.1 | 7.0 | 4.2 | 4.4 |
| Own-account workers, formal | 5.6 | 7.2 | 8.6 | 5.0 | 7.7 | 5.2 | 6.5 | 5.8 | 4.9 | 0.6 |
| Own-account workers, informal | 6.4 | 3.8 | 9.7 | 6.1 | 7.5 | 3.3 | 7.3 | 5.6 | 6.1 | 5.4 |
| Unpaid family workers | 0.0 | 0.0 | 0.8 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 6.0 |
| Employers | 1.4 | 0.7 | 0.0 | 0.3 | 0.0 | 0.5 | 1.8 | 1.0 | 0.2 | 0.1 |
| **Total** | 83.3 | 82.8 | 60.7 | 84.2 | 83.9 | 86.3 | 79.3 | 80.6 | 84.5 | 83.6 |
| N (in the unweighted sample) | 670 | 259 | 31 | 2,074 | 85 | 343 | 532 | 168 | 1,906 | 3,034 |

Table A-13: Determinants of salary expected by job seekers: OLS regression

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Model 1** | | | **Model 2** | | |
|  | All job seekers | Women | Men | All job seekers | Women | Men |
| Female | -0.135\*\*\* |  |  | -0.137\*\*\* |  |  |
|  | (0.016) |  |  | (0.016) |  |  |
| Married | 0.010 | -0.062\*\* | 0.075\*\* | -0.001 | -0.072\* | 0.071\* |
|  | (0.022) | (0.031) | (0.032) | (0.027) | (0.037) | (0.040) |
| Married\*Currently employed |  |  |  | 0.030 | 0.028 | 0.008 |
|  |  |  |  | (0.046) | (0.064) | (0.067) |
| Children (dummy) | 0.078\*\*\* | 0.092\*\*\* | 0.054 | 0.114\*\*\* | 0.105\*\*\* | 0.107\*\* |
|  | (0.023) | (0.032) | (0.035) | (0.028) | (0.038) | (0.043) |
| Children\*Currently employed |  |  |  | -0.102\*\* | -0.041 | -0.131\* |
|  |  |  |  | (0.046) | (0.064) | (0.069) |
| Capital city | 0.164\*\*\* | 0.191\*\*\* | 0.144\*\*\* | 0.164\*\*\* | 0.190\*\*\* | 0.145\*\*\* |
|  | (0.017) | (0.026) | (0.022) | (0.017) | (0.026) | (0.022) |
| Secondary general | 0.200\*\*\* | 0.229\*\*\* | 0.175\*\*\* | 0.198\*\*\* | 0.227\*\*\* | 0.176\*\*\* |
|  | (0.036) | (0.051) | (0.051) | (0.036) | (0.051) | (0.051) |
| Secondary vocational/ special | 0.232\*\*\* | 0.289\*\*\* | 0.191\*\*\* | 0.229\*\*\* | 0.287\*\*\* | 0.193\*\*\* |
|  | (0.035) | (0.051) | (0.050) | (0.035) | (0.051) | (0.050) |
| Incomplete tertiary | 0.241\*\*\* | 0.287\*\*\* | 0.200\*\*\* | 0.239\*\*\* | 0.286\*\*\* | 0.201\*\*\* |
|  | (0.036) | (0.050) | (0.051) | (0.036) | (0.050) | (0.051) |
| Tertiary | 0.298\*\*\* | 0.314\*\*\* | 0.294\*\*\* | 0.296\*\*\* | 0.313\*\*\* | 0.295\*\*\* |
|  | (0.036) | (0.051) | (0.051) | (0.036) | (0.051) | (0.051) |
| Number of languages | 0.040\*\*\* | 0.036\*\*\* | 0.039\*\*\* | 0.040\*\*\* | 0.036\*\*\* | 0.039\*\*\* |
|  | (0.009) | (0.013) | (0.013) | (0.009) | (0.013) | (0.013) |
| Romanian is native | -0.014 | -0.003 | -0.020 | -0.014 | -0.003 | -0.020 |
|  | (0.014) | (0.021) | (0.019) | (0.014) | (0.021) | (0.019) |
| Experience | 0.020\*\*\* | 0.022\*\*\* | 0.018\*\*\* | 0.020\*\*\* | 0.022\*\*\* | 0.017\*\*\* |
|  | (0.003) | (0.006) | (0.004) | (0.003) | (0.006) | (0.004) |
| Experience squared | -0.001\*\*\* | -0.001\*\*\* | -0.000\*\*\* | -0.000\*\*\* | -0.001\*\*\* | -0.000\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Number of employment episodes | 0.026\*\*\* | 0.019\*\* | 0.029\*\*\* | 0.025\*\*\* | 0.019\*\* | 0.029\*\*\* |
|  | (0.006) | (0.009) | (0.007) | (0.006) | (0.009) | (0.007) |
| Currently employed | 0.133\*\*\* | 0.110\*\*\* | 0.147\*\*\* | 0.158\*\*\* | 0.115\*\*\* | 0.188\*\*\* |
|  | (0.017) | (0.026) | (0.022) | (0.021) | (0.032) | (0.027) |
| Joblessness of 6 months and more | -0.050 | -0.152 | 0.005 | -0.067 | -0.155 | -0.025 |
|  | (0.062) | (0.105) | (0.078) | (0.063) | (0.106) | (0.078) |
| Looking for full-time employment | 0.145\*\*\* | 0.138\*\*\* | 0.144\*\*\* | 0.144\*\*\* | 0.138\*\*\* | 0.144\*\*\* |
|  | (0.017) | (0.024) | (0.024) | (0.017) | (0.024) | (0.024) |
| Availability for business trips | 0.090\*\*\* | 0.075\*\*\* | 0.109\*\*\* | 0.088\*\*\* | 0.075\*\*\* | 0.105\*\*\* |
|  | (0.017) | (0.023) | (0.024) | (0.017) | (0.023) | (0.024) |
| Readiness to move to another city | 0.118\*\*\* | 0.113\*\*\* | 0.111\*\*\* | 0.116\*\*\* | 0.112\*\*\* | 0.109\*\*\* |
|  | (0.020) | (0.034) | (0.025) | (0.020) | (0.034) | (0.025) |
| N | 3,063 | 1,328 | 1,735 | 3,063 | 1,328 | 1,735 |
| R2 | 0.395 | 0.342 | 0.410 | 0.396 | 0.342 | 0.413 |

*Note: Sample includes job seekers reporting desired wage of at least 2000 MDL. Dependent variable is the logarithm of desired wage. Standard errors in parentheses. p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. All variables except for number of languages, experience, and number of employment episodes are dummy variables. Regressions also include sector and occupation dummies and a constant term. Reference categories: Male; Unmarried; With no children; Other city; Student; Russian or other language is native; Joblessness of up to 6 months; Looking for part-time, shift or distance work; Non-available for business trips; Unready to move.*

Table A-14: Oaxaca-Blinder decomposition of gender gap in log salary expected by job seekers, 2018

|  |  |  |
| --- | --- | --- |
|  | log points | percent of gender gap |
| Total pay gap | 0.245\*\*\* | 100 |
| Total explained gap | 0.051\*\*\* | 20.6 |
| Education | 0.001 | 0.3 |
| Number of languages | -0.007\*\*\* | -3.0 |
| Romanian is native | 0.000 | -0.1 |
| Married | 0.000 | 0.0 |
| Presence of children | -0.003\* | -1.2 |
| Capital city | -0.009\*\*\* | -3.6 |
| Occupation | 0.005 | 2.2 |
| Sector | 0.008 | 3.3 |
| Experience | 0.006\*\*\* | 2.6 |
| Number of employment episodes | 0.002 | 0.6 |
| Currently employed | 0.003 | 1.2 |
| Joblessness of 6 months and more | 0.000 | -0.1 |
| Looking for full-time employment | 0.020\*\*\* | 8.1 |
| Availability for business trips | 0.017\*\*\* | 7.1 |
| Readiness to move to another city | 0.008\*\*\* | 3.2 |
| Total unexplained gap | 0.194\*\*\* | 79.4 |

*Note: \*\*\* significant at 1%, \*\* significant at 5%, \* significant at 10%. Estimated using Oaxaca command.*

1. The National Bureau of Statistics of Moldova (NBS) classifies all international migrants as inactive individuals when calculating key labor market indicators based on the Labor Force Survey (LFS). [↑](#footnote-ref-1)
2. These projections are based solely on population projections and also projections and simulations of labor-force participation rates, leaving pension reform issues, migration, patterns by cohorts aside. The same approach has been used in the *Golden Aging* report (Bussolo et al., 2015). [↑](#footnote-ref-2)
3. See Annex I for the technical details of how the main measures of occupational segregation are calculated with the LFS data. [↑](#footnote-ref-3)
4. A similar situation is observed in many transition countries including Lithuania, Hungary, and Slovenia (<http://ec.europa.eu/eurostat/documents/2995521/7672738/3-04102016-BP-EN.pdf/9f0d2d04-211a-487d-87c3-0a5f7d6b22ce>) and Ukraine. [↑](#footnote-ref-4)
5. <http://lex.justice.md/viewdoc.php?action=view&view=doc&id=300608&lang=1>. [↑](#footnote-ref-5)
6. Skill level 4 corresponds to two top groups (Senior officials and managers, Professionals), followed by Skill level 3 for Technicians and associate professionals, Skill level 2 for five occupational groups from Clerks to Plant and machine operators and assemblers, and Skill level 1 for Elementary occupations. [↑](#footnote-ref-6)
7. The comparison of average weekly hours reported by full-time workers in 2016 across 3-digit ISCO-2008 occupations shows that health and teaching professionals worked on average shorter hours than workers in other professions: medical doctors (code 221) worked 34.7 hours, other health professionals (code 226) – 36 hours, secondary education teachers (code 233) – 16 hours, vocational education teachers (code 232) – 22 hours, higher education, primary school and other teaching professionals (codes 231, 234, 235) – 27-28 hours. For comparison, full-time workers in many other occupational groups, except for ship and aircraft controllers, office clerks and secretaries, information client workers and other clerical support workers, housekeeping supervisors and subsistence farmers, worked on average 38-40 hours per week or even more. [↑](#footnote-ref-7)
8. According to the NBS definition, informal employment comprises all persons who during the survey reference week had any of the following types of job: (1) Own account workers or employers working in informal sector enterprises; (2) Members of informal producers' co-operatives; (3) Contributing family workers, whether employed in formal sector or informal sector enterprises; (4) Employees employed by formal sector enterprises, informal sector enterprises, or as paid domestic workers by households, who were in one or more of the following situations: their employer did not pay social contributions for them; they did not have the possibility to benefit from paid annual leave; they would not be given paid sick leave in the case of illness; and (5) Persons engaged in the production of agricultural goods exclusively for own consumption by their household, if they worked for 20 or more hours during the survey reference week in this activity (NBS, 2017). [↑](#footnote-ref-8)
9. It should be noted that different approaches to the definition of informal employment are used in Ukraine (the enterprise-based concept of employment in the informal sector plus workers without a written contract in the formal sector) and Moldova (a broader, job-based concept of informal employment, taking into account entitlement to certain fringe benefits). [↑](#footnote-ref-9)
10. There is no information about the field of studies for unemployed individuals and those outside the labor force. [↑](#footnote-ref-10)
11. The question about the field of studies follows after the question about correspondence between occupation and education in the LFS questionnaire. There are some observations with missing information about specialization for mismatched workers (22.4 of the unweighted sample of employed in 2016), mainly among lower-skilled workers in ISCO groups 5 to 9. Such observations are grouped into the category "Elementary occupations and/or unspecified specialization". [↑](#footnote-ref-11)
12. According to the ILO (2018), unpaid care work refers to all unpaid services provided within a household for its members, including direct, face-to-face, personal care activities (sometimes referred to as “nurturing” or “relational” care) and indirect care activities such as cleaning, cooking, doing the laundry and other household maintenance tasks (sometimes referred to as “non-relational care” or “household work”), that provide the preconditions for personal caregiving. [↑](#footnote-ref-12)
13. See Annex I for the technical details of how children-related variables used in Sections 3.2-3.3 are constructed from the LFS data and how labor force participation and employment rates are calculated to adjust for a large pool of international migrants that are classified by the NBS as inactive individuals. [↑](#footnote-ref-13)
14. The difference in labor force participation and employment rates between fathers of 1 child and of 2 and more children under 7 years is insignificant (Table A-9). [↑](#footnote-ref-14)
15. Results for employment rate are very similar because of very low unemployment of parents. [↑](#footnote-ref-15)
16. According to the NBS, out of 149,216 children attending early education institutions in 2017, only 11.2 percent were aged under 3 years. [↑](#footnote-ref-16)
17. To test the impact of children on participation and employment rates of men and women along with other characteristics (age, education, marital status, living in rural or urban areas, and region) we run probit regression models, with being in the labor force or employment as the dependent variable. The results of these regressions for labor force participation are reported in Table 4 for 2016 and in Table A-10 for the pooled dataset in 2009-2016.Specifications 1 include the number of children under 7 years among explanatory variables, and specifications 2 include age of the youngest child instead. Specifications a) use the sample of all surveyed individuals aged 15-64 years, whereas specifications b) exclude international migrants which are classified as being inactive by the NBS. The results for employment regressions, which are very similar to labor force participation regressions, can be provided by the author at request. The analysis in the pooled framework is limited to 2009-2016 because of missing data on important variables before 2009. [↑](#footnote-ref-17)
18. We analyze “under 15” rather than “under 7” here because the number of employed women with children under 15 is much larger than the number of working mothers of children under 7 years (2,653 vs 1,163 in 2016), and therefore we are likely to have less serious reliability problems of our estimates when we look at cross-tabulations by employment characteristics and number of children. The same refers to working fathers with children under 15 and 7 years (2,619 vs 1,520 observations in the 2016 sample of employed individuals aged 15-64 years). [↑](#footnote-ref-18)
19. By construction, there is no correspondence between the number of mothers and fathers with x number of children because in the case of divorce or separation children stay with mothers in the overwhelming majority of cases. There are 455 mothers of 3 and more children in the LFS sample in 2016, and 174 of them are employed. For comparison, only 74 fathers of 3 and more children in the sample, and 48 of them are employed. [↑](#footnote-ref-19)
20. This result should be interpreted with caution because of a small sample of urban female workers having 3 and more children under 15 years (31 individuals). In the probit model with the same dependent and explanatory variables as in Annex 11 but using the number of children used instead of age of the youngest child, urban mothers of 3 and more children under 15 years are more likely to be informally employed than nonmothers albeit the effect is marginally significant (at 10% level). [↑](#footnote-ref-20)
21. Here part-time employment is self-defined by female workers, i.e. based not on the hours actually worked during the reference week but on the question about a regular working regime. The incidence of self-reported part-time work increases from 3.9 percent among women with the youngest child aged 15-17 years to 18 percent among mothers of infants (0-2 years), compared to 5.7 percent among non-mothers. In all categories of children’s age, it is lower than the incidence of working less than 20 hours shown in Figure 19. [↑](#footnote-ref-21)
22. See Annex I for the technical details of how the sample and earnings variable are constructed to measure the unadjusted gender pay gap using the LFS data and how the adjusted pay gap is then estimated. [↑](#footnote-ref-22)
23. Although the LFS-based measure of gender pay gap is not strictly in line with the Eurostat measure of gender pay gap based on Structure of Earnings Survey, we use the Eurostat estimates to compare Moldova with EU countries. [↑](#footnote-ref-23)
24. We do not provide data on the gender pay gap across more disaggregated occupations (e.g. at 2-digit ISCO level) because of low statistical reliability of estimates in some occupations with few men or women in the sample of employees reporting wages and working hours. [↑](#footnote-ref-24)
25. Female to male total pay gap is estimated with the use of the Oaxaca-Blinder decomposition in two specifications: (a) human capital specification that includes basic individual characteristics, and (b) full specification, which also includes job characteristics. Table 6 also shows the fraction of the total gender pay gap accounted for by gender differences in measured characteristics and an unexplained component for both specifications, based on the Oaxaca-Blinder decomposition of male/female differences in log hourly wages. [↑](#footnote-ref-25)
26. Inclusion of ownership and formal employment as separate variables leads to automatic omission of one of these variables because employment in the public sector is almost universally formal. [↑](#footnote-ref-26)
27. The estimated motherhood wage penalty in Ukraine is 7.8% for women with one child under 18 years and 12% for those with two or more children if the pooled OLS regression is used, but it increases to over 16 and 27%, respectively, in the fixed effects models (Nizalova et al., 2016). [↑](#footnote-ref-27)
28. The number of men with 3 and more children under 15 years in the sample of employees reporting wages and working hours is very small (15 observations in 2016). They are mainly low-educated and lower-skilled rural residents. [↑](#footnote-ref-28)
29. See Annex I for technical details of how the data set of job seeker profiles has been constructed. [↑](#footnote-ref-29)
30. We assume that if women having children are cohabiting, they are less likely to report themselves as being single, i.e. unmarried. [↑](#footnote-ref-30)
31. However, the experiment in Israel with sending out CVs with photos and without them shows that women with no photo have a significantly higher rate of callbacks for interview than both attractive and plain-looking women, and attractive women are likely to face a penalty for including a photograph in their CV because of the interviewer’s bias against them (Ruffle and Shtudiner, 2011). [↑](#footnote-ref-31)
32. According to the NBS online databank (Series: Population aged 15 years and over by economic status by level of education, years, sex, area and economic status), the share of individuals with tertiary education was 19.4% among unemployed men and 25.1% among unemployed women in 2017. Respective shares of individuals with secondary specialized education (sometimes used as a substitute for incomplete higher education by job seekers) are 11 and 13%. [↑](#footnote-ref-32)
33. See, for example, <http://fortune.com/2015/03/26/the-resume-gap-women-tell-stories-men-stick-to-facts-and-get-the-advantage/>, <https://www.zippia.com/advice/resume-sentiment-analysis-men-women/>. [↑](#footnote-ref-33)
34. 18.6% of job seekers who reported about continuing studies were employed at the time of posting resume, while 47.3 percent did not work before, i.e. did not report any employment episode in the profile. For comparison, the similar shares among job seekers who defined themselves as students in the field about the level of education are 12.4 and 71.4%, respectively. Given this, we cannot say that students combining studies with employment strongly prefer to report their highest level of education rather than to label themselves as students. [↑](#footnote-ref-34)
35. To compare the composition of the sample of job seekers posting their resumes to that of employed population by the type of occupation (female-, male-dominated or mixed), we use classification of 2-digit occupations that we have developed based on the LFS data for 2014-2016 (Table A-2). [↑](#footnote-ref-35)
36. The share of female job seekers looking for full-time jobs is 20 p.p. smaller among current students than among non-studying women (48.2 vs. 68.6 percent). [↑](#footnote-ref-36)
37. When creating their profiles on the job portal, job seekers are asked about the expected salary. Although it is not necessarily the lowest wage rate at which a job seeker would be willing to accept a particular type of job, expected salary can be used as a proxy for the reservation wage. [↑](#footnote-ref-37)
38. Regression analysis of the determinants of the probability of reporting “negotiable” instead of some definite value for salary expectations based on the probit model shows, that women, job seekers looking for clerical jobs, full-time employment, and jobs in Trade are significantly less likely to report “negotiable” than males, job seekers looking for managerial jobs, part-time employment, and jobs in Industry. At the same time, individuals reporting that Romanian is their native language are more likely to hide their salary expectation. Other variables (age, marital status, education, work experience, number of employment episodes, current employment status, living in the capital city, language skills) appear to be insignificant. [↑](#footnote-ref-38)
39. Based on the NBS online databank, series “Monthly average earnings by economic activities, years, quarters and sector.” Data are presented for social and economic units with 4 or more employees and all budgetary institutions regardless of the number of employees. [↑](#footnote-ref-39)
40. <http://wbl.worldbank.org/en/data/exploreeconomies/moldova/2017#wbl_gj> [↑](#footnote-ref-40)
41. According to discussion with representatives of Moldovan employers and business associations in March 2016 and October 2018, small firms tend to discriminate in hiring against young women who they suspect can take long parental leaves in the near future. At the same time, large firms that cannot discriminate openly, especially firms with foreign investment, suffer from high labor turnover and labor costs from very long parental leaves. [↑](#footnote-ref-41)
42. These gender-based job restrictions originate from Soviet-era labor regulations. “Because of their maternity and childcare functions, women were considered a specific labor force barred from “unsuitable” occupations and encouraged to concentrate in healthcare, education, light industry and white collar jobs” (World Bank, 2013, p. 19). [↑](#footnote-ref-42)
43. <http://blogs.worldbank.org/jobs/women-working-behind-wheels-not-everywhere-yet> [↑](#footnote-ref-43)
44. We use the average for 2014-2016 when occupations have been classified according to ISCO-08 in order to minimize the impact of year-to-year changes in the sample composition. [↑](#footnote-ref-44)
45. The same approach was used in the analysis of informal employment in Moldova (World Bank, 2014b). [↑](#footnote-ref-45)
46. Self-employed workers are excluded from the analysis because the LFS does not ask employers and own-account workers about their earnings/profit. Even if such question about earnings were included, we would expect a lot of missing or strange values, as the majority of self-employed in Moldova are engaged in informal own-account work, predominantly in agriculture. [↑](#footnote-ref-46)
47. For example, in 2016 this share is 42.2 percent (7,619 out of 18,044 observations). [↑](#footnote-ref-47)
48. <http://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Gender_pay_gap> [↑](#footnote-ref-48)
49. Blau and Kahn (2017) did not control for marital status and number of children in their basic specifications in view of potential endogeneity of these variables with respect to women’s employment decisions. [↑](#footnote-ref-49)
50. According to the Terms of Use (<https://www.rabota.md/help/index.php#cv>), job seekers may remove their resumes and information shown online at any moment at their discretion, even if they did not find a job. The Administration of the job portal reserves the right to delete resumes submitted through the site without prior notice and explanation of the reasons. The administration also reserves the right to edit submitted resumes in order to make them more attractive to readers or to remove information that contradicts the legislation of the Republic of Moldova, and also publish resumes in other headings (professional areas) than that were initially chosen by the Applicants. [↑](#footnote-ref-50)