THE WORLD BANK

SOCIAL INCLUSION AND POVERTY REDUCTION UNIT

WOMEN'S ACCESS TO ECONOMIC OPPORTUNITIES IN SERBIA

Report 105793-YF

WOMEN'S ACCESS TO ECONOMIC OPPORTUNITIES IN SERBIA

March 2016

SOCIAL INCLUSION AND POVERTY REDUCTION UNIT

THE WORLD BANK

Acknowledgements

This report has been produced by the Social Inclusion and Poverty Reduction Unit of the government of the Republic of Serbia and the Poverty Global Practice of the World Bank under the guidance of Žarko Šunderić and María E. Dávalos, respectively. The authors of the report are Jelena Žarković-Rakić and Marko Vladisavljević (consultants). The team is grateful for the comments received from Julianna Flanagan Thurau and Johannes Koettl, and editing by Robert Zimmerman.

Contents

Abbreviations

ALMP	active labor market policy
EU	European Union
EU28	current full membership of the EU (28 countries)
GDP	gross domestic product
ISCED	International Standard Classification of Education
LFS	Labor Force Survey
NES	National Employment Service
SILC	Survey on Income and Living Conditions
SORS	Statistical Office of the Republic of Serbia

Executive summary

After more than a decade of progress in building an institutional infrastructure for gender equality, the overall economic opportunities among women in Serbia still lag those among men. Women, on average, earn 86 percent of the wages of their coworkers who are men after one controls for differences in educational and job characteristics. In the labor market, women who have the same work profiles as men have similar chances to be employed; however, there are many obstacles confronting women in joining the labor market in the first place. Gender inequalities are pronounced in rural areas, where a high number of women serving as unpaid family members are deprived of the right to social security. Furthermore, the recently published Gender Equality Index ranks Serbia 12 percentage points below European Union average. The Index highlights areas where particular efforts are needed such as the domain of work, access to financial resources, and social activities (domain of time).

This report focuses on better understanding the factors that influence women's economic opportunities in particular, an area in which significant inequalities remain. Women's economic opportunity is defined as a set of laws, regulations, and practices that allow women to participate in the workforce under conditions roughly equal to those of men, whether as wage-earning employees or as owners of businesses. As such, the report looks into the ability ofwomen to accumulate and build-up critical endowments - education and health – and to participate in the labor market and have access to jobs. By reviewing the institutions and policies relevant to gender equality in access to economic opportunities in Serbia, the intention is also to point out necessary improvements in policies and programs that will encourage women's participation in the workplace and thus create a more productive economy overall. The analysis mostly relies on exploiting a new dataset for Serbia, the Survey on Income and Living Conditions (SILC), together with Labor Force Survey (LFS) data.

Findings show that gender equality exists in Serbia in terms of both participation in and attainment of education. Women in the prime age group have better educational characteristics than men of the same age, while the opposite holds for the older population of women. Gender educational gaps among the poor and the bottom 40 percentof the income distribution (the bottom 40) are similar in size relative to the corresponding gaps in the general population.

Nevertheless, individuals living in rural areas and the Roma population are disadvantaged and tend to have larger gender educational gaps. According to our findings,in rural areas, women have lower average educational attainment. Early school leavers among women are also more likely to live in rural areas. Number of indicators, such as,the enrolment rates in secondary education, average number of years spent in education and percentage of population that can expect to complete postsecondary education, have significantly lower values among Roma than non-Roma population.

In the domain of knowledge, the Gender Equality Index suggest that, in comparison to EU Member States, Serbia occupies a position among the third of countries with the lowest scores. Within this domain gender differences in educational attainment, segregation and lifelong learning are monitored. Improvements are needed to increase the share of tertiary education graduates among both women and men, but also to decrease segregation according to fields of education. They are also needed to increase lifelong learning among both men and women.

Women and men have almost equal access to medical services. Although the data analyzed in this report does not have a heavy focus on health, it reveals that women tend to report somewhat poorer health and must confront more obstacles with respect to the affordability of medical services. Although the poor and the bottom 40 face larger health concerns, the gender differences are not bigger than those found among the general population. According to the Gender Equality Index, gaps in health status and access to health services between Serbia and EU are the smallest compared to other domains covered by the Index. However, Serbia is positioned among the four countries with the lowest scores, having higher index values only in comparison to the Baltic states.

In terms of access to jobs, the employment rates among women are significantly lower than the employment rates among men mainly because of greater economic inactivity among women. This is especially true among women with low educational attainment and belonging to the 55–64 age-group. If employed, women have more secure jobs given their prevalence in permanent wage employment in industry and services. Meanwhile, women who work in agriculture are in a difficult position given that the majority are unpaid family members and are thus part of the informal labor market and have no social security.

Compared to EU member states, Serbia has lower score than all other countries in the domain of work. According to the Gender Equality Index gaps are pronounced in participation, segregation and quality of work. Women are less frequently employed in full-time equivalent jobs and work less frequently with flexible working hours. Their working life is five years shorter than men's. Working women are concentrated and represent a majority of the workforce in the social sector of the economy: education, health and social protection.

A number of institutions are implementing and monitoring gender equality issues; however, strengthening their capacities is a major challenge. To ensure that policy goals are fulfilled and gender equality is increased in practice,the provision of adequate resources and better coordination among the gender-equalizing national machinery are needed.

Reconciliation measures that influence the balance between work and family life, particularly childcare services, are in short supply. To help working mothers, but also to expand the income-earning options among those women currently inactive or unemployed,the number of preschool institutions must be increased.

Current tax and benefit policies do not provide sufficient incentives for engaging in formal part-time work. Part-time work is scarce among both women and men, but, given that, in many European countries, these kinds of working arrangements have brought many women into the labor market, policies to expand the availability of part-time work should be considered. The abolishment of the base-minimum social security contribution and the reduction of the rate of withdrawal from monetary social assistance could enhance the part-time option among women with low earnings capacity. Similar effects might be anticipated from the introduction of an in-work benefit policy.

Spending on active labor market policies (ALMPs) needs to increase, at least on measures that prove to be effective. Data show that women use the National Employment Service (NES) more often than men in searching for jobs. Likewise, more women participate in the full range of active labor market programs. However, as a policy input, more research is required to identify the programs that are more beneficial for women's employment.

Tackling the disincentives and barriers that women face to work is necessary, but boosting economic growth and overall labor demand is critical. Addressing the constraints to jobs identified in the report needs to be complemented with increases in overall labor demand. Serbia has one of the highest rates of unemployment in Europe, and austerity measures that are to be implemented in 2016 will include cuts in public sector employment that may affect women more than men. Serbia only recently exited from a spell of recession, and reconciling fiscal consolidation and growth will be a challenge in the near future.

Parallel to working on reforms to improve the prospects for economic growth and job creation, the government should take action to foster change in the perceptions of the role of women in the family and, more generally, in society. Although women around the world still shoulder the overwhelming burden of household tasks, especially after they have given birth to children, in Serbia, as in other countries, women also face discriminatory hiring practices, particularly during their childbearing years and as young mothers.

Introduction

No meaningful progress is possible unless women have equal access to opportunities, including in employment, quality education, healthcare, protection from violence, and participation in decision-making processes in society. Given that the main gender gaps in the Western Balkans are found in women's access to economic opportunities, this report exploits a recently available dataset –the 2013 Survey on Income and Living Conditions, benchmarked using data of the Labor Force Survey – to better understand the gender gaps in outcomes and the barriers that women face, with a strong focus on labor markets. The report also explores the policy arena and institutional context, also focusing on women's access to economic opportunities. Although not intending to cover all dimensions of gender gaps (e.g. health, voice/agency), this assessment provides some insights into these other dimensions, as they interact with women's access to economic opportunities. It includes information on education and health available in the SILC data to get the most out of this new dataset available for Serbia, with education being particularly important in this country precisely for labor market outcomes and paths.

While economic growth is necessary to give women the opportunities they need, women's participation in the labor market is also an important contributor to the growth process. This is especially critical in rapidly aging societies where higher female participation could offset the impact of a shrinking labor force. Estimates of Cuberes and Teignier (2015) suggest that raising female labor force participation rates to the levels among men in Serbia could boost aggregate income by 9.3 percent.

Boosting educational attainment among girls and women contributes to greater economic growth. However, the gains in education must translate into better labor market outcomes. Analysis presented in this report is encouraging:educational attainment among men and women is improving, especially among women. This is closing the gender gap in primary education, although it is widening the gap in tertiary education in favor of women. Also, in the labor market, women with the same characteristics as men have an equal chance to be employed. However, the gaps in labor market outcomes among men and women are wider than the gender gaps in educational attainment, and this mainly derives from the higher rate of economic inactivity among women. Thus, fewer women are succeeding in joining the labor market and in competing with men for jobs.

Among the employed, gender gaps also exist. A large gender wage gap that increases at higher wage levels hints at the presence of a ceiling effect. In fact, the Gender Equality index suggests that the most urgent policy action is needed in the area of money. Access to financial resources, measured in the context of labor markets by assessing the differences in monthly earnings between women and men (the wage gap), reveals that with a Gender Equality Index value of 26 points, Serbia is far below an EU average result of 58 index points. Looking at another aspect of access to financial resources, the World Bank's Global Findex indicators, with data for Serbia in 2014, suggest the same percentage of men and women having an ac-

count at financial institutions. There is a small difference of 2 percentage points in favour of men in terms of having savings at financial institutions and borrowing money from them.[1] Recent research shows that not many women in Serbia succeed in reaching a decision-making position in climbing the career ladder, signaling another area in which improvements are needed. International evidence suggests that gender equality in this area, beyond representing a goal in itself, can promote economic development.[2]

This report shows that women in Serbia tend to report poorer health than men and are more often unable to afford medical services. This deserves more attention among policymakers given that the available research suggests that improvement in women's health strengthens their economic empowerment (OECD 2011b).

The national machinery for the promotion of gender equality is large but better coordination between institutions needs to be ensured in order to provide full enforcement of gender-equalizing legislation and policies. In 2014 a new institution was created- the Coordinating Body for Gender Equality -with a central role in managing activities aimed at increasing gender equality at the national level. Its recent policy initiatives include the adoption of the new National Strategy for Gender Equality (2016-2020) and the accompanying Activity Plan (2016-2018). Also, a new law on equality between women and men has been drafted. New provisions of the Budget System Law make gender-responsive budgeting mandatory for all local, provincial, and national budgeting authorities as of 2016.

One critical policy area identified by the report is on the disincentives to work and to hire embedded in the tax and social protection systems. Reasons for the small share of part-time employment in total formal employment and for the roughly equal participation of men and women in formal part-time jobs, unlike in most EU countries, could be found in the design of tax and benefit policies. Serbia, together with the countries in the region, have the lowest statutory personal income tax rate in Europe. However, since the social security tax rates are among the highest, and the deductions and credits are few, the tax wedges remain quite high for those with low wages. Arandarenko and Vukojevic (2008) show that progressivity of the tax wedge for Serbia very mild or completely absent at 50%-100% of average wage levels, which is empirically the most dense section of the wage distribution. Minimum social security contributions (SSC) base, set at 35% of the average gross wage, is not adjusted for hours actually worked, which implies that low-paid part time workers are also subject to it. Even if employee's monthly gross salary is below this threshold, social security contributions are applied to the threshold. Similarly,

[1] http://datatopics.worldbank.org/financialinclusion/country/serbia

[2] There is evidence that women's presence on boards and in senior management has a positive impact on the performance of companies. For instance, companies with three or more women on senior management teams score better on several organizational dimensions that are positively associated with greater profitability and better financial performance (Catalyst 2004; Desvaux, Devillard-Hoellinger, and Meaney 2008). Changing social attitudes toward women in high-level positions contributes to greater female participation in the formal labor force and positive outcomes on children's education, health, and nutrition, which leads to greater economic growth for all in the long run (OECD 2011a).

design of major social cash transfer, monetary social assistance, is such that, once a person has formal income on record, benefit is decreased by the total amount of earned income, or completely withdrawn. Although spending on this benefit programme is just 0.3% of the GDP, the number of beneficiaries has increased during last couple of years and now almost half of them are able bodied persons. Therefore, high minimum SSC base and social assistance benefit design makepart-time jobs economically unattractive for individuals with low earnings capacity, those having little or no working experience and low level of education. For women, who face the challenge of balancing family and work responsibilities, the high disincentives to (formal) part-time work can significantly limit their economic opportunities.

Another key policy area focuses on investing in child care facilities that could bring better reconciliation of family and working life for employed mothers and expand income earnings options for those women currently inactive or unemployed. According to Gender Equality Index, time use is the area with low achievements and prominent gender gaps. Women are disproportionately responsible for care activities and household work in the household and the family. For Serbia, the index exceeds the EU index value for the sub-domain of care, while lags behind in the sub-domain of social activities. In other words, women in Serbia, compared to females in the EU, spend more time in care activities but use less frequently time for sport, culture and leisure activities. Our report shows that almost all of those inactive who do not look for a job due to care for children or older family members, are women. Although the number of child care institutions has increased every year in the last 20 years, it is still not sufficient to cover all children of preschool age.

The structure of the report is as follows. The first section focuses on gaps in endowments – mostly education but with insights into health care – , and labor market outcomes. The second section provides an assessment of the institutional infrastructure for promoting gender equality and analyzes policies that support female labor force participation. The report concludes with several recommendations for policy reforms that could enhance women's access to economic opportunities in Serbia.

Section 1 Gender gaps in education, health care, and the labor market

Main messages
Education
- There are no significant gender disparities in educational participation.
- Women and men in Serbia, on average, show similar levels of educational attainment.
- Women of prime (age 25-54) age exhibit better educational characteristics than men of the same age. Older women (age 54–64), in contrast, are more likely to face a gender gap in education. This is also true among inactive women and women living in rural areas.
- The gender educational gaps among the poor and the bottom 40 percent of the income distribution (the bottom 40) are similar to the corresponding gaps in the total population.
- There are fewer early school leavers among girls.

Health
- A larger share of women report poor health.
- There are no significant gender differences in health among the poor or the bottom 40.
- On average, women enjoy longer life expectancy.
- Access to medical services among women is almost equal to that among men.
- Among the poor and the bottom 40, men report a somewhat higher share of unmet medical needs.
- Women faced unmet medical needs more frequently than men because of a lack of affordability in medical services.

Gender gaps in enrollment and educational attainment

Investing in formal education is essential to promote equality in employment opportunities and strengthen economic growth. Better education improves productivity and provides individuals with a greater ability to further develop their knowledge and skills throughout their lives. Increased educational attainment is also associated with better health, and more investments in the education and health of children – especially among women (OECD, 2011).

Serbia spends 4,7% of its GDP for education, which is the level of government spending comparable to other European countries, but its outcomes are considerably poorer. Serbia took part in the Programme for International Student Assessment (PISA) in 2003, 2006 and 2012. On all three occasions, Serbia's 15-year-olds failed to demonstrate an adequate level of achievement in reading, mathematical and scientific literacy. In terms of mathematical literacy, students in Serbia in 2012 scored 45 points below the OECD average, which is equivalent to one year of schooling in the OECD countries. Results obtainedin reading and scientific literacy were 50 and 60 points below OECD average, respectively (Pavlovic-Babic i Baucal, 2013).

The recently released Gender Equality Index suggests that, in the domain of knowledge, in comparison to EU Member States, Serbia occupies a position among the bottom third of countries. Within this domain gender differences in educational attainment, segregation and lifelong learning are monitored. In 2012, the difference between women and men in the share of tertiary education graduates was only 0.1 percentage points, while in 2014 it increased to 2.5 percentage points. Although this is not yet a big difference, it should be closely monitored. The indicator on segregation reveals more prominent gender discrepancies, with women concentrated significantly in the area of social sciences, humanities and arts. The gap is however stable (20.4 in 2012 and 20.7 percentage points in 2014). Participation in lifelong learning is low among both – women and men - , and the gender gap is very small (0.4 percentage points in 2014). [3]

Primary schools in Serbia are compulsory, and children are usually enrolled at the age of 6 or 7. Primary education lasts eight years and corresponds to levels 1 and 2 of the International Standard Classification of Education (ISCED) (EC 2014). According to SILC data, 99.9 percentof children in the 7–14 age-group—the age at which they are supposed to be enrolled in mandatory primary education—are enrolled in the educational system.[4]

Secondary education is provided by two types of institutions, gymnasiums and vocational schools, corresponding to ISCED level 3. Gymnasium lasts four years and supplies broad general education. However, a gymnasium diploma usually does not provide immediate employment opportunities, but good possibilities for further (tertiary) education. Vocational schools focus on specific disciplines and lead to more employment opportunities without further education. They last three or four years. The four-year vocational courses of study offer broader possibilities for further education, compared with the three-year courses.

Overall, the number of boys and girls enrolled in secondary education is practically equal: girls represent 49.6 percent of secondary-school students. In 2013, girls accounted for the majority of gymnasium graduates (58.0 percent) and four-year vocational-school graduates (52.0 percent), while boys were more numerous among three-year vocational-school graduates (two thirds are boys) (SORS 2014a). The enrollment rates in secondary education among the Roma population are significantly lower, only 27 percent among boys and 23 percent among girls (World Bank 2015a).

Tertiary-education institutions typically enroll students at the age of 19. There are two types of tertiary-education institutions: college (viša škola) and university. Until recently, college lasted two years. University education usually lasts four years, leading to a bachelor's degree.[5] Universities also offer master's degrees, which require five years in tertiary education, and PhDs (eight years). According to administrative data supplied by

---

[3] Babovic (2016)

[4] Conducted by the Statistical Office of the Republic of Serbia (SORS), SILC provides nationally and regionally representative data on sociodemographic variables (including gender, age, and educational attainment), income, poverty, the labor market, and living conditions (including health). The sample includes 6,501 households stratified at two levels: enumeration districts (the primary selection unit) and households (the secondary selection unit). The data cover the weights, provided by the SORS, used to correct the descriptive statistics and the regression estimates.

[5] After the signing of the Bologna Declaration, some universities began to offer three-year programs, leading to a bachelor's degree.

the Statistical Office of the Republic of Serbia (SORS), the share of women among students enrolled in tertiary education was 56.0 percentin 2012 (SORS 2014a).

On average, women are not less educated than men. SILC data presented in Table 1.1 show that although women have higher share of primary education, they also have a higher share of tertiary educational attainment, whereas the rates for secondary-school diplomas are higher among men. Tertiary educational attainment among men and women is low in Serbia compared with the average among the current full membership of the European Union (the EU28), which is 26.8 percent among women and 23.7 percent among men. [6]

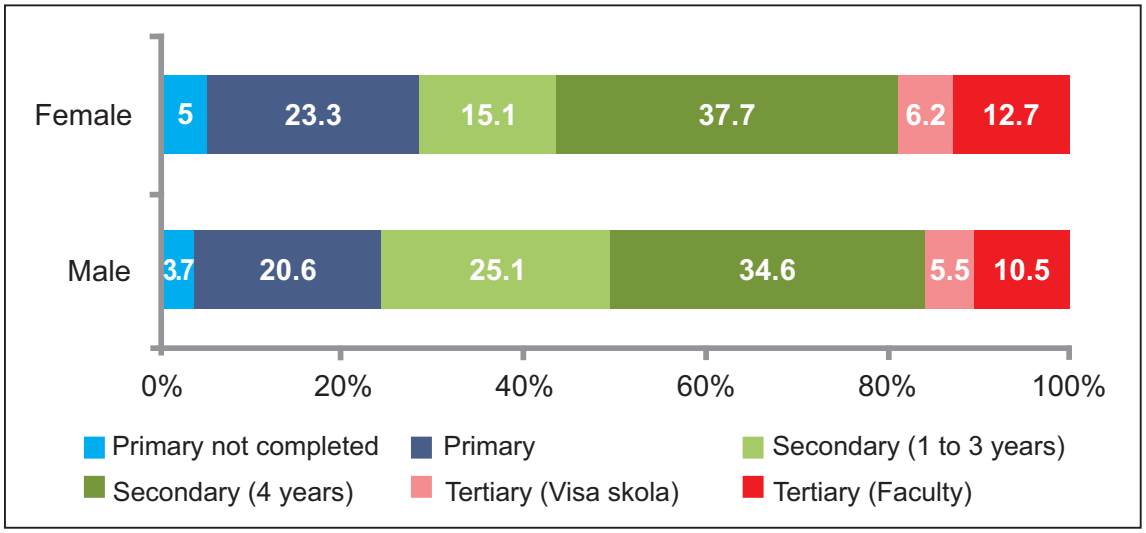
Table 1.1: Highest educational attainment, by gender, 2013 (15–64, %)

	Women	Men	Gap (p.p.)
Primary	28.4	24.4	4.0
Secondary	52.7	59.7	- 7.0
Tertiary	18.9	15.9	3.0
Sample size	6,856	6,750	

Source: Based on 2013 SILC data.

A more detailed analysis of educational structurereveals that **more women than men have attained four-year secondary-school diplomas and tertiary education** (Figure 1.2). Men outnumber women in three-year secondary-school programs, which is reflected in job positions, given that men account for more than 80percent of craft and trade workers and plant and machine operators (appendix Table A15). However, the share of men with three-year secondary-schoolcertificates decreases with age, suggesting that three-year schools are declining in popularity.

Figure 1.2: Detailed educational attainment, by gender, 2013 (15–64, %)

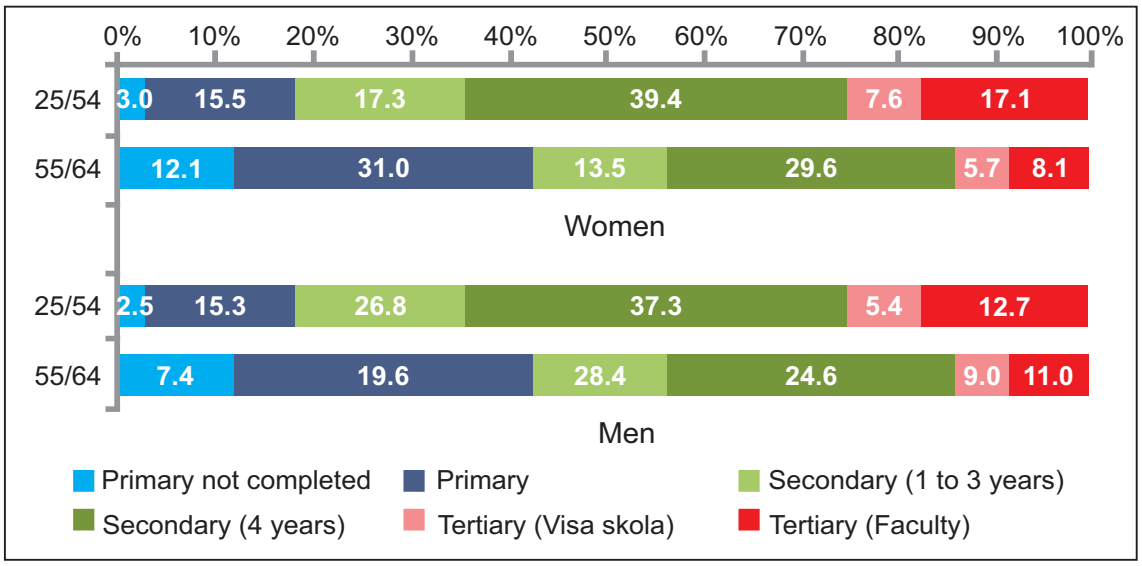


Source: Based on 2013 SILC data.

[6] Employment and Unemployment (Labour Force Survey)(database), Eurostat, Luxembourg, http://ec.europa.eu/eurostat/web/lfs/data/database.

Women of prime age (aged 25-54) enjoy higher educational attainment than men, but the reverse is true among older cohorts. Almost 25 percent of women 25–54 years of age have completed tertiary education, compared with around 18 percent of men. In the same age-group, more women have four-year secondary-school diplomas, and the share of women with three-year secondary-school degrees is 9 percentage points lower than the corresponding share among men (Figure 1.3). Among the 55–64 age-group, the situation is the opposite: 20.0 percent of men have attained a tertiary education,compared with 13.8 percent of women. Additionally, among 43.1 percent of women and 27.0 percent of men in this age-group, the highest level of education attained is primary or lower, and the share of women who have not completed primary school is the largest in this age bracket (Figure 1.3). These various data imply that educational attainment is improving among the population, but particularly among women.

Figure 1.3: Detailed educational attainment, by gender and age, 2013 (15–64, %)

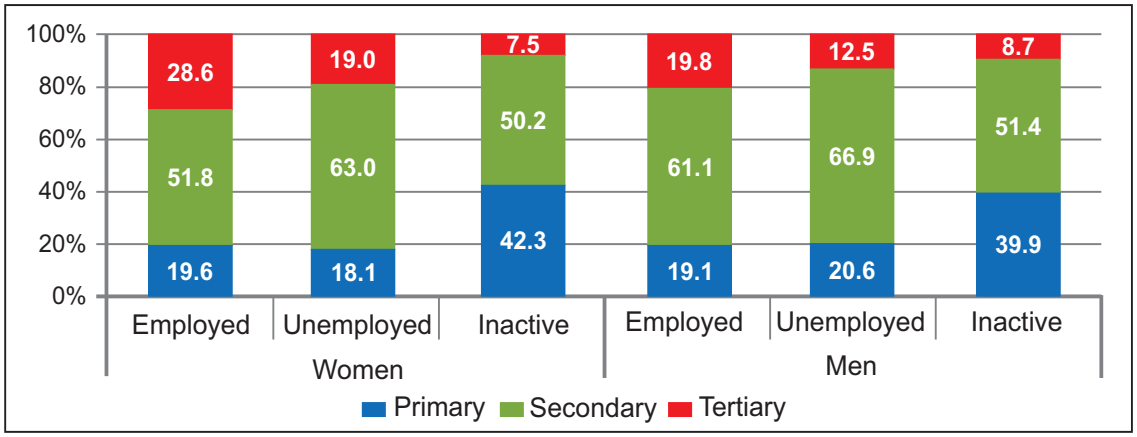


Source: Based on 2013 SILC data.

Gender differences in educational attainment are more pronounced in rural areas than in urban areas. In rural areas, women have lower average educational attainment: the highest educational attainment is completed primary school or lower among 42.5 percent of women, compared with 35.3 percent of men. In urban areas, average educational attainment is the same among women and men. Women have a higher share of tertiary educational attainment, but also a higher share of primary educational attainment (appendix Figure A1).

Among people who are active in the labor market, women are more well educated, and, among the inactive, the gender gaps in education are small. On average, both employed and unemployed women show better educational attainment than their counterparts among men. This is because greater shares of women with tertiary educational attainment are in both groups. Differences in educational attainment among inactive men and women, however, are only slightly in favor of men because of the lower share of primary educational attainment among men (Figure 1.4).

Figure 1.4: Educational attainment, by gender and labor market status, 2013 (15–64, %)



Source: Based on 2013 SILC data.

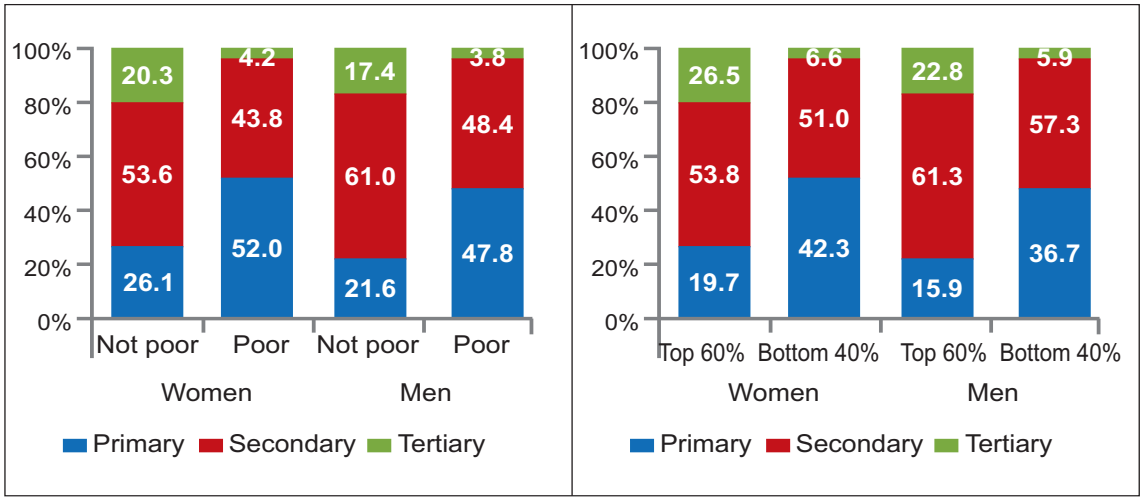
Only 30 percent of Roma individuals can expect to complete postsecondary education. The share is somewhat lower among women. This compares with almost 70 percent among the non-Roma population. Meanwhile, one-quarter of Roma women can expect to finish lower-secondary education as their highest level of educational attainment; this compares with only 3 percent among non-Roma women.

Educational attainment, poverty, and shared prosperity

Among both men and women, the poor show significantly lower levels of educational attainment than the nonpoor.[7] However, among the poor, the gender gap in education is negligible and follows the pattern among the general population. Asimilar situation is found among the bottom 40 percent of the income distribution (the bottom 40) and across the structure of educational attainment considered more widely (Figure 1.5; appendix Figure A2).

[7] We use 30 percent of the median equivalised income poverty line to capture those people who face the deepest risk of poverty. This poverty line gives a poverty rate of 9.1 percent. This is close to the absolute poverty rate of 8.7 percent based on consumption data of the Household Budget Survey (Mijatović 2014). The poverty line is equal to a disposable income of SRD 6,840 a month or $2.60 a day (based on the 2012 exchange rate).The official at-risk-of-poverty line based on SILC data is 60 percent of the median equivalized income, yielding a 24.6 percentat-the-risk-of-poverty rate. Because this indicator does not provide much additional information relative to the shared prosperity indicator (40 percent poverty rate), we opted to use a more "strict" criteria.

Figure 1.5: Educational attainment, by gender, poverty (left), and income status (right), 2013 (15–64, %)



Source: Based on 2013 SILC data.
Note: The poverty line is defined as 30 percent of the median equivalised income (see footnote 7 for details).

The average number of years spent in education is much lower among the Roma: almost 6.0 years among women and 6.7 years among men, compared with 11.0 years across all non-Roma (World Bank 2015a).

Early school leavers

Education policy in Serbia encourages people to complete at least secondary education given that lower attainment is associated with a higher risk of unemployment, labor market marginalization, poverty, and social exclusion.

Early school leavers include young people who have left education and training with only primary education or less and who are no longer in education.[8] Eurostat calculates the rate of early school leavers as a percentage of the total 18–24 age-group using LFS data. In 2013, the average rate among the EU28 stood at 11.9 percent, and young men showed a higher rate than young women, by 3.3 percentage points (13.5 percent vs. 10.2 percent). The rate in Serbia based on LFS data in the first quarter of 2014 stood at 8.1 percent, and it is only slightly higher among men than among women (8.5 percent vs. 7.7 percent).[9] Lower rates were also ob-

[8] In Serbia, primary education corresponds to ISCED level 2. Eurostat defines early school leavers as young men and women aged 18–24 who (a) have attained at most lower-secondary education (the highest level of education or training they have completed is 2011 ISCED 0, 1, or 2) and (b) were not involved in education or training during the four weeks preceding the survey. The Eurostat indicator is based onLFS data, while, in the SORS LFS communications, this indicator is not published. SILC data provide the higher estimate for this indicator because we are not able to exclude from the early school leavers those who are receivingor have received training. Therefore, (b) is defined as those who are currently not in education.

[9] Calculations based on LFS data.

served in neighboring countries: 7.0 percent in Bosnia and Herzegovina, 4.5 percent in Croatia,and 3.7 percent in Slovenia.[10]

SILC data similarly suggest that there are fewer early school leavers among girls and women and that the gender gap in the rate is wider among the poor. Among the 18–24 age-group, the early school leaving rate in 2013 was 11.1 percent among men and 7.9 percent among women. The rates among both men and women are higher among the poor,and the gender gap widens to 10.0 percent among the poor because the rates surge to 20.9 percent among women and 30.9 percent among men. Similarly, early school leaving rates are higher among the bottom 40, although the gender differences are approximately the same among the bottom 40 as among the general population (15.2 percent among women and 17.9 percent among men).

Although they are only marginally reliable because of the limited sample size, results indicate that early school leavers show substantially lower employment rates among women than among men (17.5 percent vs. 37.9 percent), much higher respective inactivity rates (54.3 percent vs. 19.0 percent), and lower respective poverty rates (26.8 percent vs. 33.0 percent). Early school leavers among women are also more likely to live in rural areas (56.0 percent vs. 49.3 percent)(appendix Figure A3).

Gender gaps in health indicators

Public health spending amounts to 6.5% of the GDP, which is close to EU average of 7%. However, health indicators lag behind those of majority of the EU countries. The value of life expectancy at the age of 65 in Serbia is among the lowest in Europe. In 2011, the value of this indicator was 4.3 years below the European Union average (15.3 versus 19.6 years). Children are an especially vulnerable group, and the infant mortality rate decreased since 2010: in 2012 there were 6.2 infant deaths per 1,000 live births. This value puts Serbia among the countries in Europe with high infant mortality rates. The infant mortality rate in Roma settlements is estimated to be more than twice as high, at 13 to 1,000 live births in 2012, while the Roma under-5 mortality rate was 14 per 1,000 live births (Government of Serbia, 2014). Furthermore, indicators of efficiency in the health care system show lower values than those in EU countries, at the level of primary, secondary and tertiary health care alike.[11]

Available health indicators suggest that women in Serbia experience worse health conditions than men. First, compared with the situation in the EU28,

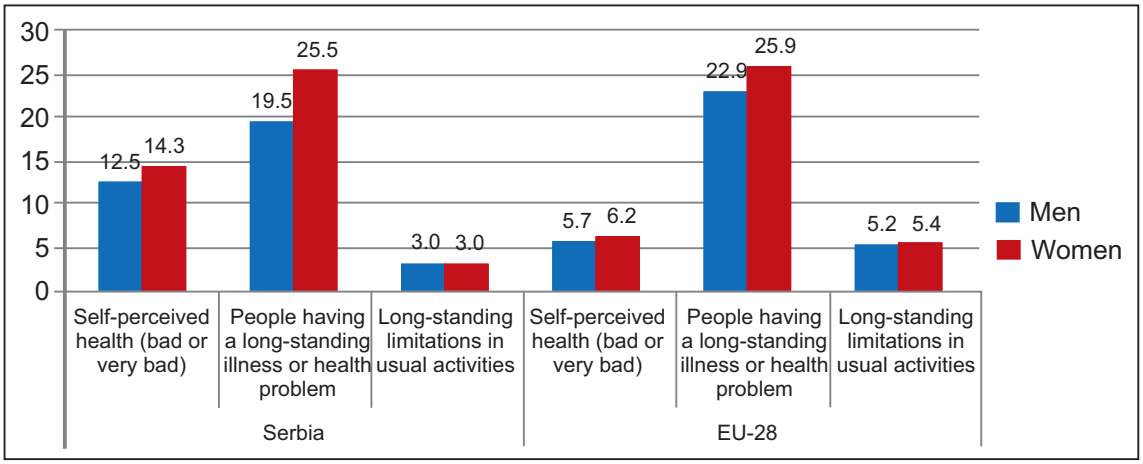
---

[10] Employment and Unemployment (Labour Force Survey)(database), Eurostat, Luxembourg, http://ec.europa.eu/eurostat/web/lfs/data/database.

[11] The introduction of mechanisms for increasing the health care system efficiency and the health professionals' productivity is difficult. Capitation, as a method of payment for selected physicians in primary health care, was implemented in 2013 after a delay but rendered symbolic differences in rewarding productivity. The implementation of a new method of financing of hospitals by diagnosis-related groups is progressing at a very slow pace (Government of Serbia, 2014).

women and men in Serbia report somewhat lower shares of chronic illness, other health problems, or limitations in routine activities because of health issues, but a higher incidence of poor or very poor health (Figure 1.6). However, women report a higher share of chronic illness or chronic health problems than men (by 6.6 percentage points), and somewhat more women than men perceive their health as bad or very bad (Figure 1.6). While, among people living below the poverty lineor among the bottom 40, all indicators show generally worse health conditions, the gender differences are not more pronounced (appendix Figure A4).

Figure 1.6: Main health indicators, Serbia and the EU28, 2013 (16–64, %)



Source: Serbia: calculations based on 2013 SILC data. EU28: 2013 SILC data, Eurostat.

Women have longer life expectancy than men. In 2012, life expectancy at birth was 77.5 years among women and 72.3 among men. Although rising since 2000, life expectancy at birth in Serbia is still significantly lower than the EU28 average of 83.1 years among women and 77.5 years among men.[12]

On average, the access of women to health care services in Serbia is almost equal to that of men. The shares of women reporting an unmet need for medical or dental care in Serbia (17.3 percentand 21.6 percent, respectively) is approximately equal to the corresponding shares among men (17.9 percent and 19.1 percent, respectively). These shares are high compared with the overall EU28 averages of about 7.0 percent and 8.0 percent for unmet needs in medical and dental services, respectively.[13]

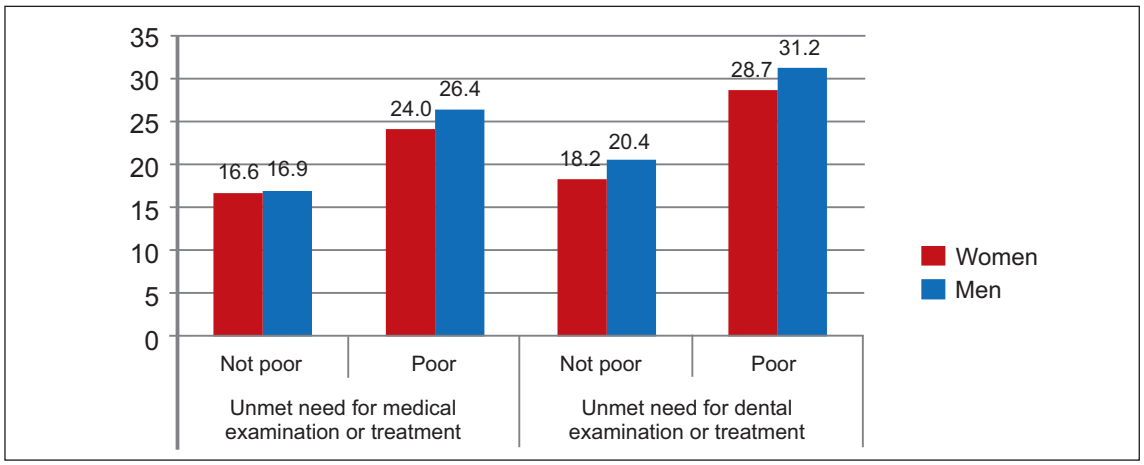
Among both women and men, people living below the poverty line report higher shares of unmet medical and dental needs relative to the nonpoor: a difference of almost 10 percent for both types of services (Figure 1.7). Among the poor, a somewhat higher share of men report they have unmet needs in both service areas. The gap in unmet needs between the bottom 40 and the rest of the population

[12] Data on Serbia: SORS;data on the EU28: Eurostat.

[13] The shares in Serbia are comparable with the EU28 only in the case of Latvia, where the shares of unmet needs in medical and dental services stood at around 20.0 percent in 2012 (OECD 2014).

is approximately 5 percentage points and 8 percentage points in medical and dental services, respectively. Within the bottom 40, men report a higher share of unmet needs only in dental services (appendix Figure A5).

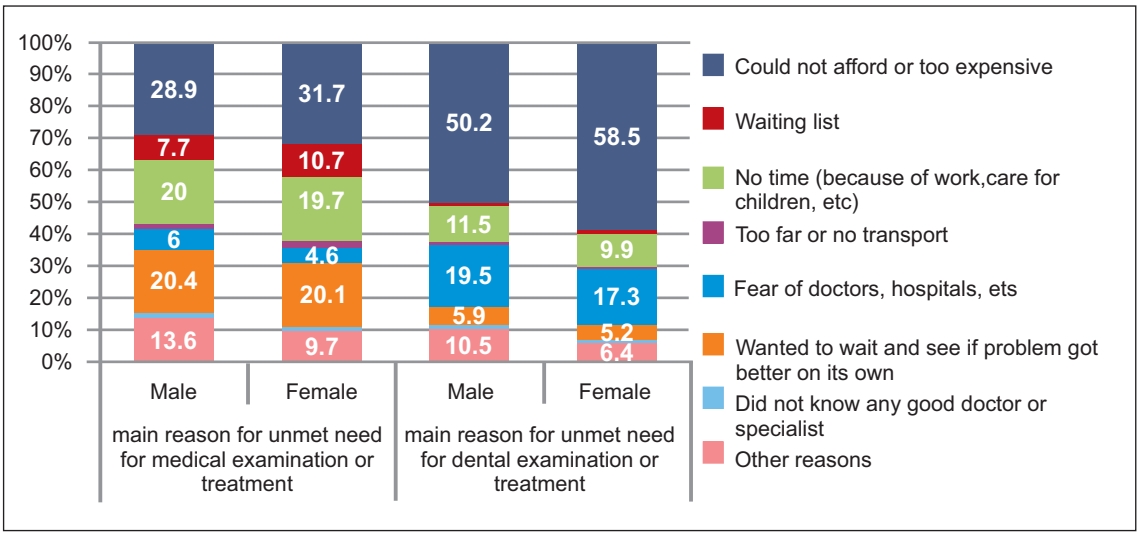
Figure 1.7: Unmet needs for medical and dental services, by gender and poverty status, 2013 (16–64, %)



Source: Based on 2013 SILC data.

Affordability is the main reported reason people do not seek the services of doctors or dentists in Serbia; the share is slightly higher among women. Among women reporting unmet needs, 31.7 percentin medical services and 58.5 percent in dental services were accounted for by lack of affordability; among men, the respective shares were 28.9 percent and 50.2 percent (Figure 1.8). Women also report more frequently than men that they are on waiting lists for medical services.

Figure 1.8: Reasons for unmet needs in medical and dental examination or treatment, Serbia, 2013 (16–64, %)



Source: Based on 2013 SILC data.

Gender gaps in labor market outcomes

Main messages

- If they are in the labor market, women of the same characteristics as men have an equal chance of employment.
- However, even if they have similar characteristics, women face difficulties in joining the labor market in the first place. Men have close to a 15 percentage points advantage over women in the current employment rate. In industry and services, women work more often as permanent, wage employees and therefore have more secure jobs than men.
- In agriculture, women are in the majority among unpaid family members lacking social security.
- Among the poor and the bottom 40, the main difference between men and women is in the significantly higher share of inactive women. However, if they are employed, the poor are more often found in agriculture, and the shares in employment are higher among women.
- The gender wage gap, adjusted for the other relevant wage determinants, is large, amounting to almost 14 percent.

Gender gaps in employment, unemployment, and inactivity

The employment rate is substantially lower among women than among men. According to LFS data, employment rates among the 15–64 age-group in 2013 stood at 40.1 percent among women and 54.9 percent among men. The gender gap was thus 14.8 percentage points. The difference in the employment rates was mainly associated with the greater inactivity rate among women, by 16.9 percentage points, yielding a small gender unemployment gap of 2.9 percentage points (Table 1.9).

Table 1.9: Main labor market indicators, by gender, 2013 (15–64, %)

	Women	Men	Gap (p.p.)
Employment rate	40.1	54.9	14.8
Unemployment rate	24.6	21.7	–2.9
Inactivity rate	46.8	29.9	–16.9

Source: 2013 LFS data.

The 2008–09 global financial crisis affected labor markets in Serbia through a reduction in employment rates among men and women. According to LFS data, employment rates declined rapidly among both men and women between 2008 and 2011 (Figure 1.10). The drop in employment was more pronounced among men (a cumulative 9.9 percentage points) than among women (7.2 percentage points), which led to a reduction in the gender employment gap from 17.0 to 14.1 percentage points in 2008–11. The reason for this trend was the higher number

of women employed in the public sector, which showed less employment contraction than the private sector (Avlijaš et al. 2013).

Figure 1.10: Employment rates, by gender, 2008–14 (15–64, %)

Source: Based on LFS data.

Employment rates have started to recover. Between 2012 and 2014, the employment rate rose by 4.1 percentage points among men and 4.7 percentage points among women (see Figure 1.10). However, employment growth seems to have been driven mainly by the expansion in informal employment (SORS 2015a). According to LFS data, annual employment rates among the 15–64 age-group in 2014 stood at 43.6 percent among women and 57.2 percent among men (see Figure 1.10). These rates are significantly below the EU28 average, 59.6 percent and 70.1 percent, respectively.[14] Although the gender employment gap bottomed at 13.7 percentage points in 2014 because of the more favorable trends in women's employment in recent years, it is still larger than the EU28 average (10.5 percentage points).

Unemployment is substantial among both men and women. According to LFS data, the unemployment rates in 2013 stood at 21.7 percent among men and 24.6 percent among women. These rates are substantially higher than the EU28 average (10.2 percentand 10.4 percent, respectively). The gender unemployment gap, 2.9 percentage points, is higher than the EU28 average, which is close to zero (–0.1 percentage points).

In what follows, the gender gaps in labor market outcomes are based on SILC data because these data allow us to link the findings with indicators on poverty and shared prosperity. Relative to the LFS, the SILC reports higher employment rates—46.5 percent among women and 59.6 percent among men—because of better coverage of less permanent and less readily noticeable types of employment, such as work at market stalls or seasonal work in agriculture. Such jobs are mainly grouped under self-employment, unpaid family work, or temporary

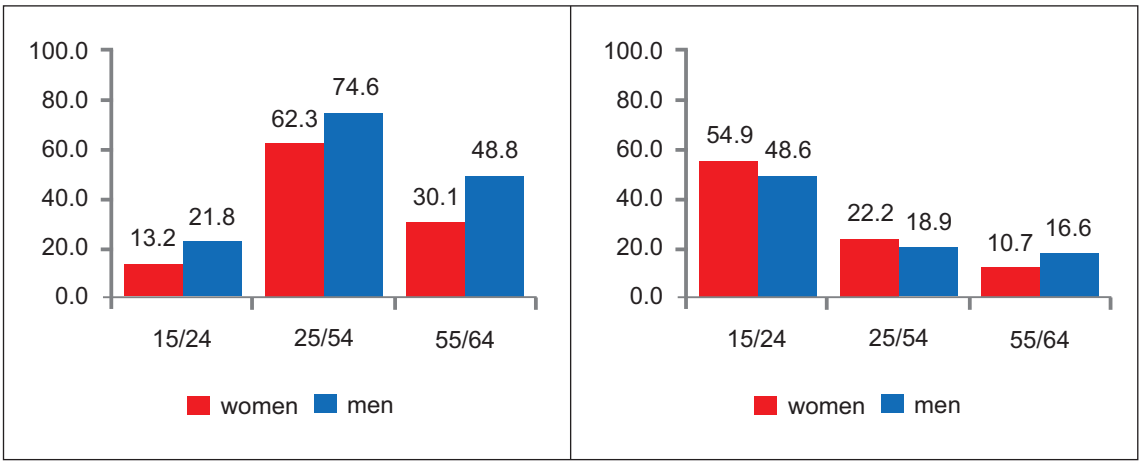
[14] Employment and Unemployment (Labour Force Survey) (database), Eurostat, Luxembourg, http://ec.europa.eu/eurostat/web/lfs/data/database.

work and as informal employment. Meanwhile, estimates of the shares of the most stable, permanent wage jobs among the total population are approximately identical in both surveys. The gender gap in employment rate is slightly less pronounced in the SILC data (13.1 vs. 14.8 percentage pointsin the LFS data) given thata significant share of employment among women is in the informal agricultural sector. Additionally, compared with the LFS, the gaps in inactivity and unemployment rates are slightly lower (15.2 and 1.9 percentage points respectively).

Labor market status by age, education, and residence

The youth employment rate is extremely low, particularly among women. Employment rates among youth 15–24 years of age were 13.2 percent among women and 21.8 percent among men (Figure 1.11, left).

Figure 1.11: Employment (left) and unemployment (right) rates, by gender and age, 2013 (15–64, %)



Source: Based on 2013 SILC data.

These low employment rates are the result of two interrelated factors:

- High youth inactivity, particularly among women (70.8 percent relative to 57.5 percent among men), because of education (92.0 percent of inactive youth are still in school) and the lack of opportunities to balance work and school
- High youth unemployment, particularly among women (54.9 percent relative to 48.6 percent among men), because of limited work experience and the difficult transition from school to work (Krstic 2009)

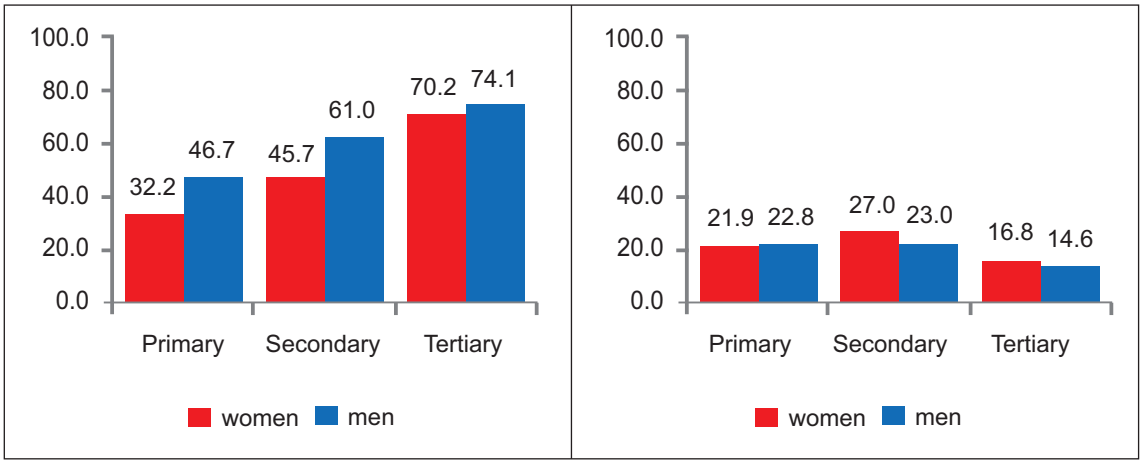
From the gender perspective, although the youth gender employment gap, at 7.6 percentage points, is lower than the gender gap among the working-age population, at 13.1 percentage points, young women are not in a better position than other women. The lower gender employment gap is a statistical artifact because of the floor effect, that is, the low overall employment rates do not allow for higher levels of inequality between men and women. The difficult position of young women is con-

firmed by the wide gender unemployment gap, which is most pronounced among this age-group, at 6.4 percentage points (Figure 1.11, right), indicating that young women face more difficulty than young men in finding jobs.

The gender employment rate gap is most pronounced among older workers. Among workers in the 55–64 age-group, the gap is 18.7 percentage points because of the higher inactivity rate among women (66.3 percent vs. 41.5 percent among men) partly caused by earlier retirement: the legal retirement age is 60 among women and 65 among men.

The gender employment and inactivity rate gaps are more pronounced among the better educated. The employment rate gap among people with primary and secondary education was about 15.0 percentage points, compared with 3.9 percentage points among people with tertiary education (Figure 1.12). The inactivity rate gaps follow the size and pattern of the employment gaps, that is, wider gaps at the lower levels of education and narrower gaps at the tertiary level (appendix Figure A6). The unemployment rate gap is smaller and follows a different pattern: with attainment of primary education, unemployment rates are higher among men, while better educated women have a slightly harder time finding jobs than the corresponding men.

Figure 1.12: Employment (left) and unemployment (right) rates, by gender and educational attainment, 2013 (15–64, %)



Source: Based on 2013 SILC data.

The gender employment rate gap is two times wider in rural areas than in urban areas (18.9 vs. 8.9 percentage points) because of higher employment rates among men in rural areas, mainly in agriculture. While there are no differences in unemployment rates among men and women in urban areas, unemployment rates areabout 5.0 percentage points higher among women than among men in rural areas (appendix Figure A7).

The adjusted gender gap in economic activity and employment

The gender gaps in employment, unemployment, and inactivity estimated in the previous subsection present differences between the average woman and the average man in the population. However, these average, unadjusted gender gaps may be associated with differences in characteristics that are important for labor market participation and employment.

In this subsection, gender gaps in labor market status are assessed by holding key household and individual characteristics statistically constant, via regression analysis. The purpose of the regression analysis is to go beyond the descriptive indicators such as (in)activity and unemployment rate gaps and to check whether these gaps can be explained by characteristics other than gender. When adjusted for these characteristics, these gaps show the differences between men and women with otherwise similar household and individual characteristics. Furthermore, the analysis focuses on two questions:

- What are the main factors associated with higher female and male labor market participation (vs. inactivity)?
- What are the main factors associated with higher female and male employment (vs. unemployment) when they enter the labor market?
- For both models, a probit regression is first applied on the whole sample and then estimated separately for women and men.

The labor participation model

In the labor participation model, we estimate the adjusted gender gap in labor market participation (that is,the activity gap).[15] Labor market participation means that an individual is either working (employed) or is actively seeking work and is ready to take up a job (unemployed). Therefore, we regress the binary variable, which takes the value of 1 if a person is participating in the labor market (that is, if a person is employed or unemployed) and the value of 0 if the person is not participating in the labor market (that is, if a person is inactive). Because the dependent variable in this model is a dummy variable, we apply the probit model and calculate the marginal effects to assess the impact of gender conditional on other relevant characteristics.

On average, women show a 15.2 percentage points lower probability of labor market activity than men. Starting with the simple model wherein gender is the only regressor in the labor market participation equation, the marginal effect for the model (S1) is statistically significant, and it shows that, if the individual is a

[15] The sample for the analysis includes 13,606 men and women in the working-age population (15–64), and it is comparable with the sample for the analysis of the main labor market indicators presented in table 1.9.

woman, this decreases the likelihood of labor market participation by 0.152 (Table 1.13). Given that there are no other regressors in the model, this coefficient represents the unadjusted gender participation gap.[16]

Table 1.13: Marginal effects in the labor market participation model

Variable	S1	S2	S3	S4	S5
Woman		**−0.188*** **	**−0.188*** **	**−0.188*** **	**−0.190*** **
	(0.008)	**(0.009)**	**(0.009)**	**(0.009)**	**(0.009)**
Age and education		Yes	Yes	Yes	Yes
Region and residence			Yes	Yes	Yes
Household pensions and benefits				Yes	Yes
Marital status and number of children					Yes

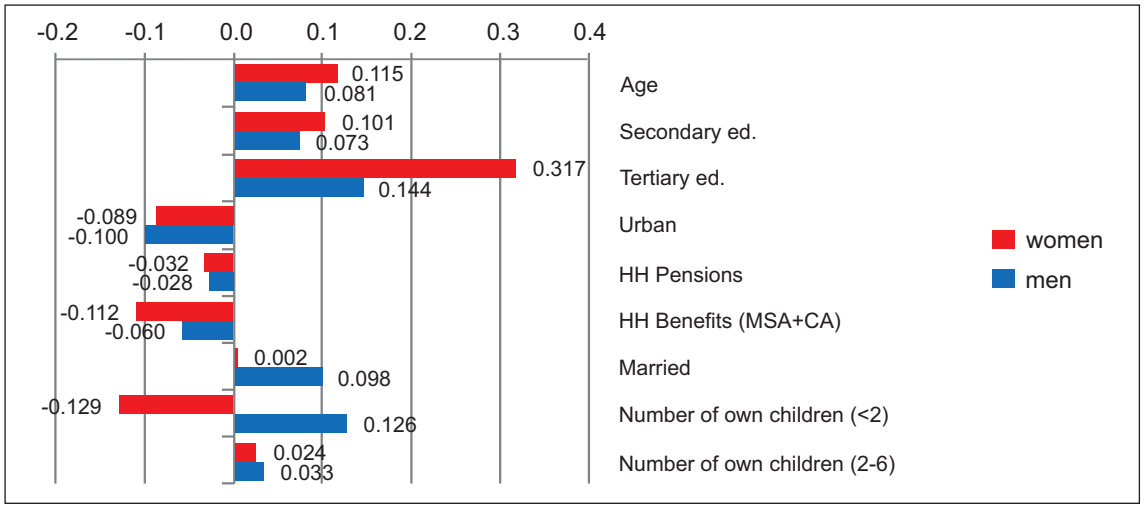
Source: Based on 2013 SILC data.
Note: The full table is appendix table A8.
Robust standard errors (in parentheses): ***p<.01**p<.05 *p<0.1

Relative to men of the same age and educational attainment, women show an 18.8 percentage points lower probability of labor market participation. The S2 column in the row Woman in Table 1.13 presents the labor market participation gap adjusted for differences in age and education, which increases to 0.188 relative to the unadjusted gap. In models S3 and S4, we include the regional and residence (urban or rural) effects and the effects of household pensions and benefits (monetary social assistance and the child allowance), but they have no impact on the participation gap. If marital status and the number of children are included in the model, the participation gap reaches 0.19. This means that, relative to men of the same age and education, from the same area of residence and region, and exhibiting the same household characteristics, women show 19.0 percentage points less likelihood of participating in the labor market (Table 1.13, column S5).

Tertiary educational attainment is a more important factor in activity among women. Figure 1.14 presents the results of labor participation models estimated separately for men and women. These models aim to capture differences in the main determinants and correlates of male and female laborforce participation. First, while the effects of age and secondary educational attainment on male and female activity are positive and approximately equal, the marginal effects of tertiary educational attainment are substantially larger among women. Urban residence decreases the likelihood of labor market activity equally among both men and women (all else being the same).

[16] The same value is presented above where we discuss the gap in inactivity.

Figure 1.14: Marginal effects in the labor market participation model, men and women



Source: Based on 2013 SILC data.

Note: The full table is appendix table A9.

Significance level (marginal effects in bold):p<.01

S**econd, receiving pensions and benefits is associated with lower likelihood of activity among both men and women, but the decline is greater among women.** While receiving pensions is associated with lower male and female activity to the same extent, the female recipients of social benefits are twice as likely to be inactive than their male counterparts. Therefore, receiving benefits is associated with a stronger inactivity incentive among women than among men and accounts for part of the gap in participation.

The presence of young children in the household is associated with a significantly lower probability of labor market participation among women. Men are more likely to participate in the labor market if they are married, while marriage is not associated with women's participation. Having small children (up to the age of 2), however, is positively correlated with activity of men, negatively withactivity among women. Yet, having children between 2 and 6 years of age is not associated with the participation of either men or women. Therefore, gender roles in the care of young children are likely to be associated with the labor market activity of men and women and explain part of the gap in participation.

The employment model

In the employment model, we estimate the gender differences in the probability of finding a job if an individual has entered the labor market.[17] Thus, we model the binary variable, which takes the value of 1 if the individual is employed

[17] The sample for the analysis includes 6,856 active men and women aged between 15 and 64.It is comparable with the sample for the employed and unemployed used to obtain employment and unemployment rates in table 1.9.

and 0 if the individual is unemployed. This definition of the dependent variable represents the variable that is used in the calculation of the unemployment rate, but we reverse the groups here so the interpretation of the coefficients would revolve around higher association with employment.

Overall, once women enter the labor market, the probability they will find a job is similar to that of men. The marginal effect for the model S1, where gender is the only predictor of employment, is statistically significant and amounts to −0.019 (Table 1.15, column S1). Because we do not include any other regressors, this coefficient is equivalent to the unadjusted gender unemployment gap calculated above. On average, women face a 1.9 percent lower probability of being employed relative to men. After the employment gap is adjusted for the differences in work experience and educational attainment, it decreases to 0.001 and becomes statistically insignificant because men who are active show a greater average amount of work experience relative to women (Table 1.15, column S2). Therefore, the gender unemployment gap can be explained on the basis of the longer work experience of active men. In models S3 and S4, region, residence, marital status, and number of children are included as additional variables. The unemployment gap remains unchanged and statistically insignificant (Table 1.15, column S4). Therefore, relative to men of the same age, work experience, area of residence, region, marital status, and number of children,women have the same probability of employment if they are in the labor market.

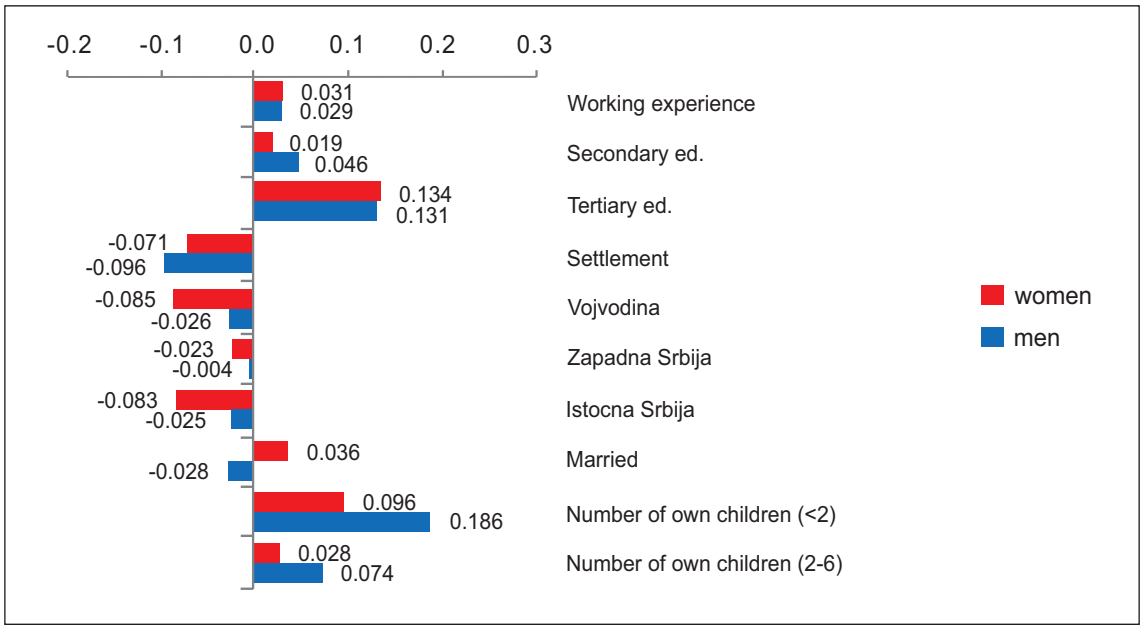
Table 1.15: Marginal effects in the employment model

Variables	S1	S2	S3	S4
Woman	−0.019**	−0.002	−0.001	−0.001
	(0.009)	(0.009)	(0.009)	(0.009)
Working experience and education		Yes	Yes	Yes
Region and residence			Yes	Yes
Marital status and the number of children				Yes

Source: Based on 2013 SILC data.
Note:The full table is appendix table A10.
Robust standard errors (in parentheses): ***p<.01**p<.05 *p<0.1

Among both women and men, the probability of employment rises with work experience (at a decreasing rate) and educational attainment. Figure 1.16 presents separate models for men and women that highlight differences in employment determinants. While tertiary educational attainment increases the chance of finding work among both men and women to approximately the same extent, secondary educational attainment raises the employment opportunities only among men. Therefore, women with secondary education have the same employment opportunities as women with primary education if they enter the labor market. Urban residence decreases the likelihood of employment among both men and women(all else being equal), while regional differences in employment opportunities arise only among women. Women in Eastern Serbia and Vojvodina face more difficulty finding work and are thus in a relatively worse position than similar women in Belgrade.

Figure 1.16: Marginal effects in the employment model,men and women



Source: Based on 2013 SILC data.
Note: The full table is appendix table A11.
Statistical significance: .01 (marginal effects in bold); .05 (in italics)

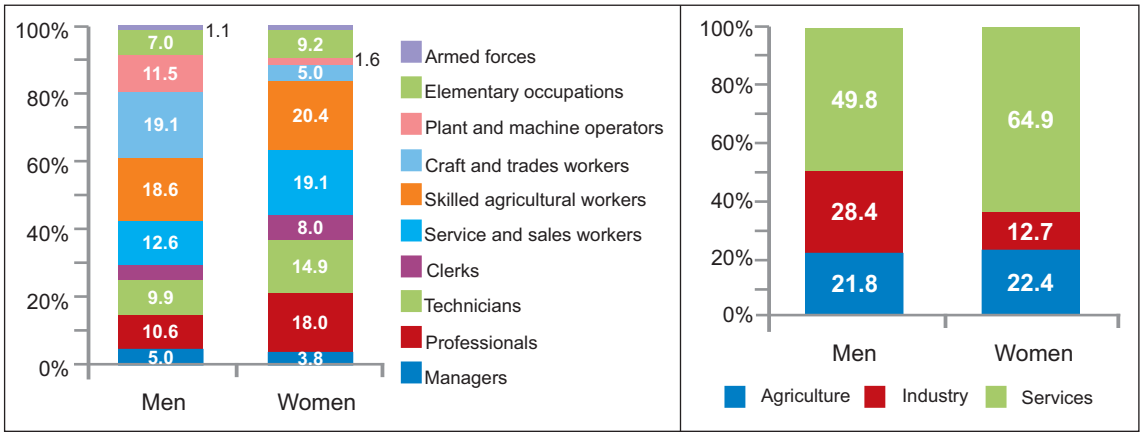
The gender differences in employment determinants are most pronounced in household variables. Women are more likely to be employed if they are married, while, among men, marriage is associated with lower likelihood of employment. The marginal effects of having small children (up to the age of 2 or between ages 2 and 6) are positive and significant among both women and men. However, they are almost twice as large among men relative to women (Figure 1.16). This may derive from the fact that men with small children are often considered the primary breadwinners and are more willing to accept any job offer they receive.

Job-quality gap sand gender segregation by occupation and economic sector

Employed women, on average, have better jobs than men. Almost half of employed women (44.7 percent) work in the four most highly paid occupations (managers, professionals, technicians,and clerks), compared with fewer than one-third of men (30.2 percent) (Figure 1.17, left).[18]

[18] Women are also a majority among service and sales workers and workers in basic occupations, while men account for more than 80 percent of craft and trade workers and plant and machine operators (appendix Table A10).

Figure 1.17: Employment, by occupation (left), economic sector (right), and gender, 2013 (15–64, %)



Source: Based on 2013 SILC data.

However, women work relatively less frequently as managers, which shows that they have less access to decision-making positions. Analysis of the 2009 Business Environment and Enterprise Performance Survey shows that women constitute only 16 percent of top firm managers.[19] Companies with women's participation in ownership are substantially more likely to have women among top managers than solely male-owned companies: 41 percent of woman-owned firms vs. 6 percent of man-owned firms have women as top managers.

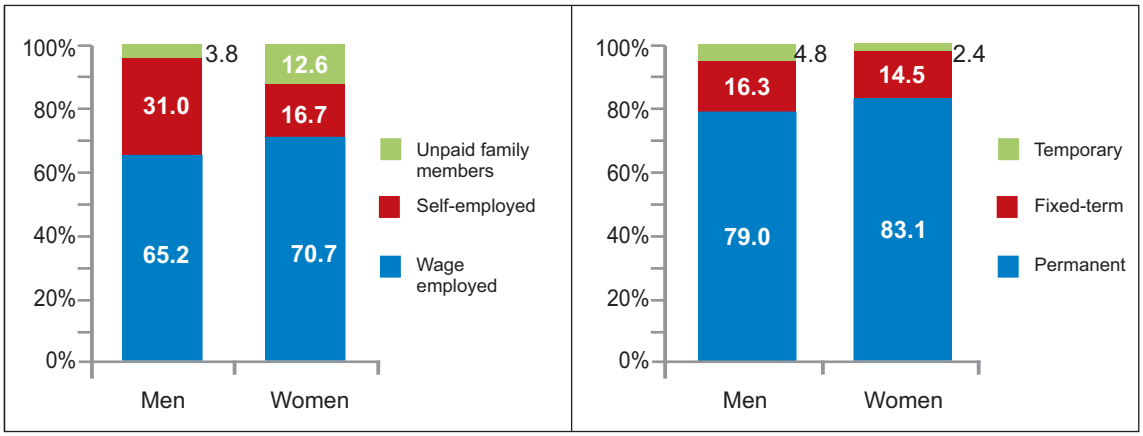
Research has shown that women face obstacles in attempting to climb the career ladder (Babović 2007). First, focus group discussions with employees at private enterprises revealed that there is a social bias toward women in senior positions so that, even if a company's board of directors is prepared to promote a woman to a management position, the decision is often met with strong resistance among male colleagues. If a woman is eventually assigned a management role, she may face a lack of cooperation by men in her daily work. Second, the increased professional responsibilities and greater contributions to household budgets of women are not necessarily accompanied by a reduction in women's everyday household obligations. Hence, women commonly mention the need to care for the family as an obstacle to professional growth and career advancement.

Almost two-thirds of women, 64.9 percent, work in services, compared with 49.8 percent of men. The share of women and men working in agriculture is approximately the same and roughly corresponds to the share of skilled agricultural workers in the structure of employment by occupations (see Figure 1.17).

[19] The survey helps assess the performance and key obstacles to growth of small and medium enterprises and large firms through interviews with owners and top management in 388 manufacturing and service companies in Serbia. See Business Environment and Enterprise Performance Survey (database), World Bank and European Bank for Reconstruction and Development, London, http://ebrd-beeps.com/.

In terms of gaps in job quality, women are wage-employed and on permanent working contracts more frequently than men, which suggests that women have more secure jobs (Figure 1.18). However, this is only true in the industry and service sectors, whereas, in agriculture, where more than one-fifth of women work, women are less well off, given that half of them work as unpaid family members, compared with only 15.9 percent of men (appendix Figure A12).

Figure 1.18: Professional status (left) and the type of contracts for the wage-employed (right), by gender, 2013 (15–64, %)



Source: Based on 2013 SILC data.

Women's entrepreneurship in rural areas is constrained by limited ownership of farmland. According to a study of the United Nations Development Programme (Babović 2007), if rural women buy or inherit land, tradition obliges them to register the land in the names of their husbands or other male relatives. This prevents women living in rural areas from starting or joining agricultural cooperatives. It may also limit their opportunity to engage in other types of entrepreneurial activities because of a lack of collateral and an inability to access bank loans.

Formal and informal employment

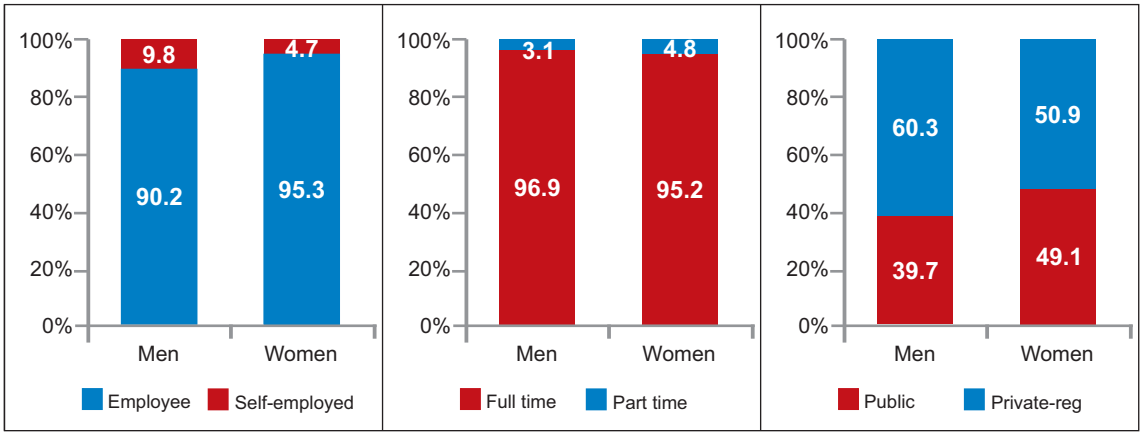
According to SILC data, the share of the informal sector in total employment is large and larger among men than women (35.7 percent vs. 31.3 percent). Because of the better coverage of informal work arrangements, the SILC data report higher informal employment rates than the LFS data (see the box). Additionally, the rates are higher among women than men (23.5 percent vs. 20.9 percent, respectively). The informal and formal sectors are quite differentin Serbia. Formal employment is dominated by industry and services, with a small share of agriculture. Most formal workers are wage-employed and work full time, while part-time arrangements are negligible. Women show higher shares of wage employment and work more frequently than men in the public sector (Figure 1.19).

The definition of informal employment in SILC data

Informal employment is defined here relative to the definition of informal employment in the LFS data (International Labour Organization–type definition). The LFS definition covers people employed in unregistered companies, people employed in registered companies without a formal employment contract and without social and pension insurance, and unpaid family workers.

However, the contract criteria are not available in the SILC. So, the definition used in this report is based on the two criteria: does an individual work in an unregistered firm, and does the individual or his employer pay social security contributions. Regardless of the missing criteria, the estimated informal employment rate (the share of the informally employed in total employment) is higher based on the SILC data than in the LFS (see appendix 2 for clarification). Therefore, the introduction of this, the third criterion would only increase the number of the informally employed.

Figure 1.19: Professional status, full-time and part-time work, and firm ownership in the formal sector, by gender, 2013 (15–64, %)



Source: Based on 2013 SILC data.

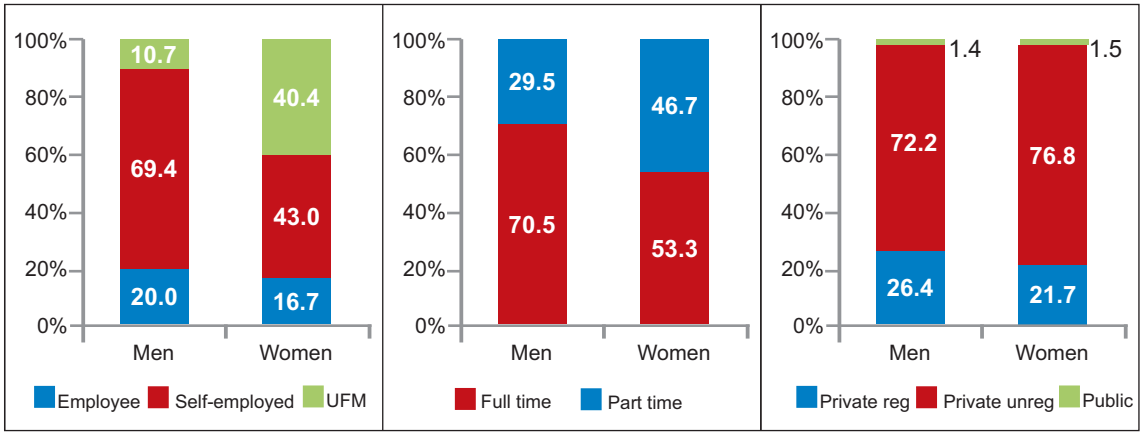
On the other hand, the majority of informal work is performed in agriculture (60.7 percent), with large shares of self-employment and unpaid family members, a larger number of part-time workers, and employment in unregistered businesses.

Part-time work in the informal sector is more frequent among women, especially in agriculture. In industry and services, the share of part-time workers and the difference between men and women are smaller (appendix Figure A13).

Informal employment is characterized by larger shares of unpaid family members among women than among men (Figure 1.20). While men most often report their professional status in agriculture as self-employed, women see themselves more frequently as unpaid family members who provide support, but do not receive remuneration for their work and are, by definition, informally employed. This also means they have less access to social security, such as health insurance and pensions. This inequality may be one of the reasons for the wide gender gap in pension coverage among the population over the legal retirement age. In 2011, this gap was 14.0 percentage points; 6.7 percent of men and 20.7 percent of women were not receiving pension.[20]

[20] Population census data, government of Serbia, 2014.

Figure 1.20: Professional status, full-time and part-time work, and firm ownership inthe informal sector, by gender, 2013 (15–64, %)

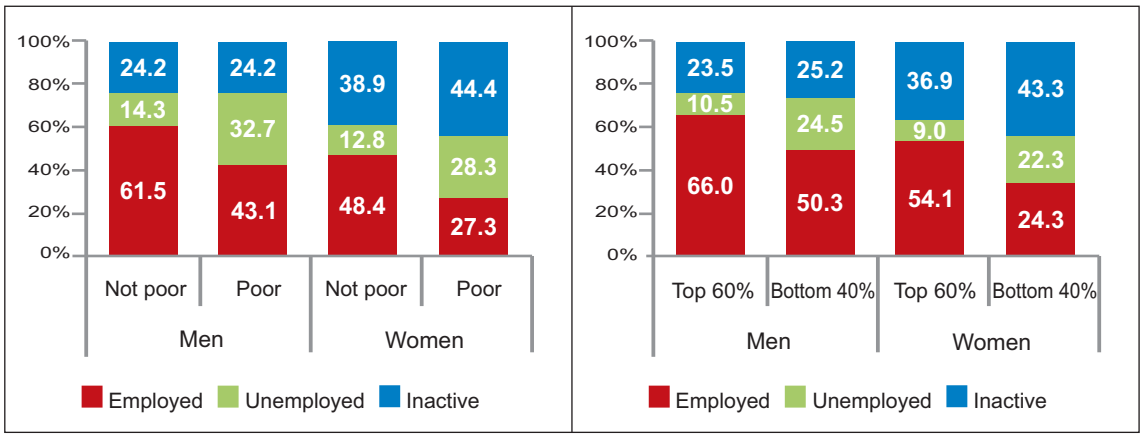


Source: Based on 2013 SILC data.

Labor market outcomes, poverty, and shared prosperity

The unemployment rate is higher among the poor. Among the poor, the main difference between women and men is the substantially greater share of inactive women. A similar situation may be observed among the bottom 40 and the top 60 percent of the income distribution (Figure 1.21).

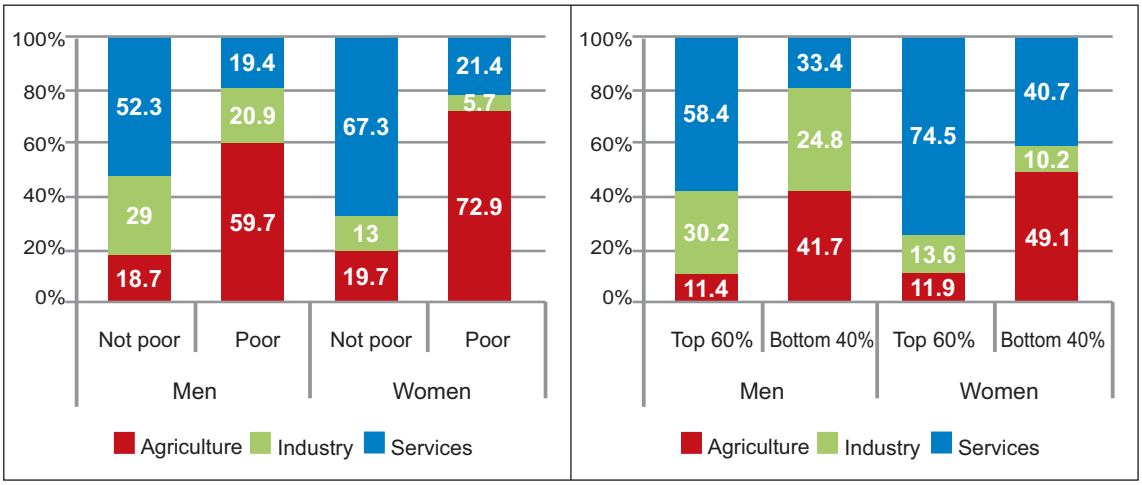
Figure 1.21: Main labor market status, by gender, poverty (left), and income status (right), 2013 (15–64, %)



Source: Based on 2013 SILC data.

The working poor are concentrated in the agricultural sector. The gap in agricultural employment between the poor and nonpoor is wider among women (53.2 percentage points) than among men (41.0 percentage points). Another notable difference between women and men is in the industrial sector, where poor men are employed more frequently than poor women. The results are similar among the bottom 40, although the differences in the sectoral shares are smaller (Figure 1.20).

Figure 1.22: Sector of activity, by gender and poverty (left) and income status (right), 2013 (15–64, %)

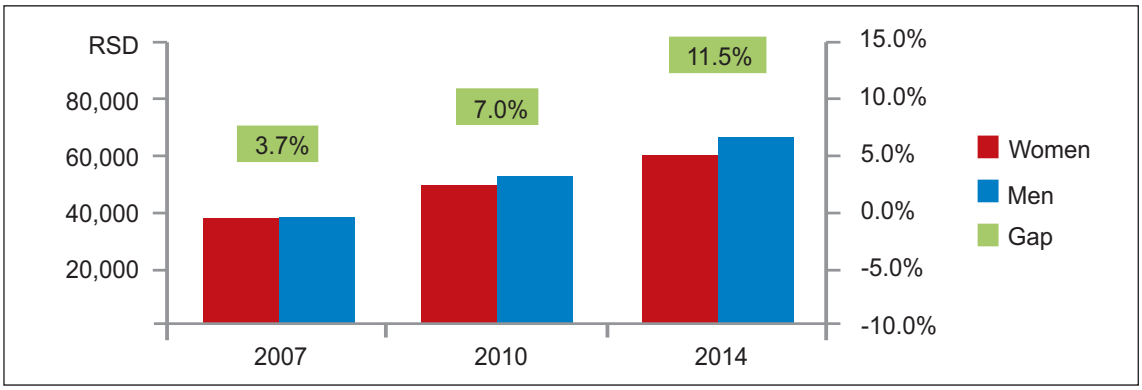


Source: Based on 2013 SILC data.

The gender wage gap

The Organisation for Economic Co-operation and Development defines the gender wage gap as the difference between male and female wages expressed as a percentage of male wages. According to RAD Survey data, gender inequality in earnings widened from 3.7 percent in 2007 to 11.5 percent in 2014 (Figure 1.23).[21]

Figure 1.23: Wages among women and men and the gender gap in wages, 2007, 2010, and 2013



Source: Based on data of the RAD survey 2008, 2011, 2014.

Meanwhile, Eurostat (2010) defines the gender wage gap in terms of the gender differences in average hourly earnings. Avlijaš et al. (2013) use the hourly wages

[21] The RAD survey is a monthly survey of business establishments carried out by SORS. The dataset includes general information on firms such as type of ownership and industry classification. Data are also available on the number of employees according to skill level and gender, together with (monthly) gross wages, employer contributions, and income taxes. The survey is designed to cover all establishments, institutions, and organizations irrespective of occupation, type of ownership, or legal status,including whether or not they are in the process of liquidation. The survey also covers formal nonagricultural employment.

reported in the LFS to estimate the unadjusted and the adjusted wage gap in Serbia. They show that the unadjusted gender gap in hourly wages decreased from 6.2 percent in 2008 to 4.0 percent in 2011. The estimated unadjusted gap is low relative to the 2012 EU28 average (16.4 percent). However, given that employed women have better labor market characteristics than employed men (for example, the greater participation of workers with tertiary education), the adjusted pay gap is wider than the unadjusted pay gap (after we correct for the labor market differences between men and women) and is estimated at 8.5 percent (Avlijaš et al. 2013).

The unadjusted wage gap shows that, on average, employed women receive 4.5 percent lower wages than employed men. Table 1.24 presents econometric estimates of the unadjusted and the adjusted gender wage gap based on SILC data. In the model, gender differences in log hourly wages are calculated conditional on job characteristics (occupation, economic sector, area of residence, region, and so on) and individual characteristics (age, educational attainment, work experience, and so on). [22]

Table 1.24: Estimated unadjusted and adjusted gender wage gap (15–64)

Variables	S0	S1	S2	S3	S4	S5
Women[a]	**–0.045*** **	**–0.108*** **	**–0.135*** **	**–0.138*** **	**–0.139*** **	**–0.138*** **
	(0.017)	**(0.014)**	**(0.014)**	**(0.014)**	**(0.014)**	**(0.014)**
Work experience, educational attainment		Yes	Yes	Yes	Yes	Yes
Occupation			Yes	Yes	Yes	Yes
Region and residence				Yes	Yes	Yes
Job characteristics[b]					Yes	Yes
Household variables[c]						Yes

Source: Based on 2013 SILC data.

Note: The full table is appendix table A14.

a.Since the dependent variable (wages) is in logs, the coefficients are approximately equal to the percentage difference in wages.

b. Economic sector (industry vs. services), ownership (public vs. private), formal vs. informal sector, contract (permanent vs. temporary).

c. Household size, marital status, and number of children.

Robust standard errors (in parentheses): ***p<.01 **p<.05 *p<.1

Accounting for experience and educational attainmentraises the gender wage gap. Model S1 includes work experience and education variables. The coefficients have the expected signs: wages rise with work experience and educational attainment (appendix Table A14). The coefficient under model S1, woman is the wage gap adjusted for the differences in work experience and education. As earlier research shows, differences in education and experience do not fully explain the wage gap (for example, see Avlijaš et al. 2013). In contrast, because of the better educational characteristics of employed women (see Figure 1.4), the adjusted wage gap increases to 10.8 percent.

[22] The sample for the analysis includes all wageemployees (excluding the self-employed and unpaid family members) who do not work in agriculture or the armed forces. The sample does not include non–wage earners.

The wage gap rises if occupational differences are included. In model S2, differences in occupation are added to the wage equation. Similarly to work experience and educational attainment, occupational differences cannot explain the wage gap. The gender pay gap rises to 13.5 percent because women work more frequently in more well-paying occupations than men (see Figure 1.17, left for details). In models S3, S4, and S5, we include regional and urban or rural residence effects, job characteristics (sector, ownership, informality, and contract type), and household characteristics (size, marital status, and number of children), but these exert no impact on the gap. The final estimate shows that women who, relative to men, have the same work experience and educational attainment, who are from the same area of residence and region,who live in household swith the same characteristics, and who are working in the same occupation and are holding jobs with similar characteristics are paid 13.8 percent less than men.[23]

The adjusted wage gap varies across the quintiles of the wage distribution. The gap is narrowest at the bottom and widest at thetop of the distribution, suggesting a glass ceiling effect (Avlijaš et al. 2013). This confirms the existence of difficulties facing women in gaining access to more well paid, more senior, and managerial positions.

Appendix Table A2.15 shows that, all else being equal, wages are higher in Belgrade and urban areas generally, in industry relative to services, in formal wage employment, and among individuals with permanent contracts. They are also almost 16 percent higher in the public sector relative to the private sector (appendix Table A14).

We isolate the data by ownership type to estimate the unadjusted and adjusted gender wage gap in the public and private sectors. The unadjusted gender wage gap is almost twice as wide in the private sector (9.9 percent vs. 5.2 percent in the public sector).[24] However, while women in the public sector have much better labor market characteristics than men in educational attainment, occupation, and so on, these differences are less pronounced in the private sector. Thus, if we control for these characteristics, the adjusted wage gapis 12.4 percent in both sectors.[25] This is in line with previous findings showing that, because of the better labor characteristics of women, the gender wage gap in the public sector is not so evident (see Vladisavljević, Avlijaš, and Vujić 2015). Thus, to enter employment in the public sector, women, on average, need to have better labor market characteristics than men, which indicates that they face greater obstacles at the point of entry into the public sector.

---

[23] Previous research indicates that the adjusted gap would be lower if the one controlled wages for selection effects (Avlijaš et al. 2013). However, this type of analysis is beyond the scope of this report. The selection effects would be a useful topic for future research.

[24] Calculations based on 2013 SILC data.

[25] Calculations based on 2013 SILC data.

Section 2 The institutions and policies regulating gender equality

Main messages

- Existing gender-equalizing legislation and policies are not being fully implemented or enforced.
- Adequate resources and better coordination of the national machinery for the promotion of gender equality need to be ensured.
- According to the Gender Equality Index areas with low achievements and prominent gender gaps are related to the quality of work, access to financial resources, and social activities (domain of time).
- Financial disincentives for taking up formal part-time work remain, particularly with respect to individuals at the bottom of the wage distribution.
- The differences in employment rates among men and women with children are large.
- The use of formal childcare facilities for children up to 3 years of age and for children 3–6 years of age is far less than the Barcelona targets. Meanwhile, almost the entire inactive population not looking for work because of the lack of care options for children or older family members consists of women.
- No estimates exist on the impact of formal and informal care arrangements on women's labor force participation.
- Women are the majority among participants in active labor market programs that seek to improve the chances of getting a job such as jobs clubs, efficiency training, selection and classification measures, and vocational training. Meanwhile, employers rely on job subsidies to employ more men than women, and, similarly, fewer women receive self-employment subsidies from the National Employment Service (NES).
- No gender-disaggregated evidence exists on who benefits from active labor market policies (ALMPs).

The legal and regulatory framework on gender equality

The Serbian Constitution establishes the legal basis for regulations on gender equality by recognizing gender equality as a fundamental right. The state guarantees equality between women and men and is responsible for setting policies toensure equal opportunity.

The 2010–15 National Strategy for Improving the Position of Women and Promoting Gender Equality created a consistent and comprehensive government policy to eliminate discrimination against women. There were several strategic priorities, including the realization of women's right to take part in decision-making on an equal footing with men,the eradication of economic inequalities between women and men, the elimination of direct and indirect discrimination against women, the achievement of gender equality in education and the mainstreaming of gender into education policy, improvement in women's health and the

mainstreaming of gender into health policy, the prevention and elimination of all forms of violence against women, and the establishment of a comprehensive system of protection of women victims of violence.

To enhance the economic position of women, the strategy emphasized employment policies that promote the successful reconciliation of work and family life among women, such as flexible work arrangements (part-time work, work from home) and greater accessibility to childcare and care facilities for other dependents (see the box).

Promoting employment policy that allows reconciliation between work and family life

- According to the 2010–15 National Strategy for Improving the Position of Women and Promoting Gender Equality, the goal of reconciling work and family life among women was to be achieved by the following:
- Providing day care centers for under-7-year-olds and extended day care for school-age children
- Establishing incentives for companies to offer these services to their employees
- Improving elderly care
- Conducting public campaigns that promote the take-up among fathers of parental leave and the greater involvement of men in sharing household responsibilities
- Promoting flexible work arrangements through the following:
  - Creating incentives for employers to create more part-time jobs and work-from-home jobs
  - Establishing an office for time planning, use, and management similar to ones in the EU to organizemore efficientpublic servicesand contribute to enhancing the balance between work and family life among the population
  - Furnishing incentives to encourage the private sector to increase the supply of childcare and elderly care services to reduce the relevant burdens on households, while creating jobs in these services

The Law on Gender Equality was adopted in 2009. The law addresses gender equality in employment, health care, family relations, education, culture, sports, political and public life, and judicial protection. It establishes special measures to eliminate gender-based discrimination and special initiatives and programs for victims of domestic violence, including the provision of shelters, social, legal, and other assistance, and compensation for victims. Equal pay for equal work is guaranteed, and relevant penalties are set out. The adoption of the new gender equality law was planned for the beginning of 2016, but the law has been withdrawn from the legislative procedure.

New provisions of the Budget System Lawmake gender-responsive budgeting mandatory for all local,provincial, and national budgeting authorities as of 2016. According to these provisions, all program budgets must include gender goals and gender-sensitive outcome and output indicators to be used as monitoring tools to measure the contribution of programs to gender equality.[26] Developing

[26] See http://www.parlament.gov.rs/upload/archive/files/cir/pdf/zakoni/2015/3208-15.pdf [In Serbian].

gender-sensitive budgets makes it possible to see how the budget revenues and expenditures impact the socioeconomic status and opportunities of women and men as well as the aspects of equality between women and men in the country. As a public finance management tool, gender responsive budget analysis allows to determine how and to what extent the state policy affects diverse groups of men and women as service consumers, infrastructure users, and taxpayers. Several municipalities had gone through UN WOMEN and European Progress training for the introduction of gender responsive budgeting. As a result of this initiative, in this year's budget municipality Vlasotince, for instance, will expand health protection programs for women especially in the area of cancer prevention. Vlasotince is the one of 34 municipalities (20% of all local self governments) in Serbia that have signed European Declaration on gender equality.

In 2014, the Coordination Body for Gender Equality was created and assigned a central role in managing national-level activities aimed at increasing gender equality. The implementation of the 2010–15 strategy and the Law on Gender Equality was originally the responsibility of the Directorate forGender Equality, which had been established in 2007 within the Ministry of Labor, Employment, Veterans, and Social Policy as the first government administrative mechanismto promote gender equality. The directorate was responsible for analyzing and recommending measures to advance gender equality, drafting laws and regulations, and identifying policiesto promote equal opportunity. However, the 2014 Law on Ministries and Government dismantled the directorate, and a unit for gender equality was created under the development and planning authority of the new Ministry of Labor, Employment, Veterans, and Social Policy. Shortly thereafter, the government set up the Coordination Body for Gender Equality, which is chaired by the deputy prime minister and consists of two ministers and the secretary general of the government. The entity examines all relevant issues and coordinates the work of the government administration in gender equality.

Recent policy initiatives of the Coordination Body include adoption of the new National Strategy for Gender Equality for the 2016-2020 period with the accompanying Action plan. The Coordination Body will be in charge of the overall monitoring of the implementation of the activities included in the strategy. The National Action Plan, limited to 3 years from 2016 until 2018, recognises responsible institutions for each of the activity defined. In 2018 Midterm evaluation is planned and a development of a new Action plan until 2020.

Policies and measures of equal opportunities in new National Strategy for Gender Equality

According to the 2016–20 National Strategy for Gender Equality, there are three main objectives:
1) to promote culture of gender equality;
2) to increase equality of women and men by applying policies and measures of equal opportunities;
3) to apply systemic gender mainstreaming in decision making, implementation and monitoring of public policies.

The second objective should be fulfilled by allowing:
- equal participation of women and men in parenthood and care economy;
- equal participation of women and men in making decisions in both public and private life;
- increased participation of women in the labor market in order to improve their economic position;
- equal participation of women and men in rural areas and equal contribution of development and equal access to the development;
- increased position of multiple discriminated groups and vulnerable groups of women;
- equal access to health servicesfor men and women.

The Gender Equality Council, an advisory body, was established by the government in 2003. It consists of representatives of relevant ministries, representatives of civil society, and gender experts, evaluates gender equality issues and problems, and makes recommendations to the government.It is directly responsible to the Coordination Body for Gender Equality.

There are numerous other institutional mechanisms for implementing and monitoring gender equality, including the following:

- *The Committee on Human and Minority Rights and Gender Equality* within the National Assembly reviews draft laws and other legislation aimed at improving gender equality. It also reviews government policies and the implementation by the governmentoflaws in the area of gender equality. Following a series of highly publicized cases of violence against women in 2015, a separate committee was proposed to focus only on gender equality and to strengthen monitoring, especially in the implementation of laws and regulations.
- In 2012, *the deputy ombudsman for the rights of children*, who was appointed in 2008, established the Council for Gender Equalityto act as an advisory body and to tackle domestic violence and other gender-related issues.
- *The commissioner for the protection of equalitywas* appointed as an independent official in early 2010. The commissioner promotes and monitors equality policy, acts upon complaints of discrimination, and submits an annual report to the National Assembly. The commissioner cooperates with civil society especially by advocating for improved access to government data, which is important for organizations such as Women's Network Serbia.

The Gender Equality Synergy Group is an informal, independent forum for the exchange of information and opinions on gender equality issues. It was established in 2006 with the aim of promoting a policy dialogue among donors, other stakeholders, and the government to ensure that gender equality is integrated in the design and delivery of development programs and projectsand to harmonizethe approaches toissues.

Serbia is a signatory of the most important international conventions on equal opportunities, including the United Nations Convention on the Elimination of All Forms of Discrimination against Women, the United Nations Convention on the Political Rights of Women, and the Convention Concerning Equal Remuneration for Men and Women Workers for Work of Equal Value. In December 2010, Serbia adopted a National Action Plan to advance the implementation of United Nations Security Council Resolution 1325 on women, peace, and security. The plan was launched in 2011.

The process of EU accession has had a significant influence on the legislative framework for gender equality. This has also been the case in other countries in the western Balkans that are more advanced in the integration process. Spehar (2012) analyzesthe effectiveness of the EU gender strategy in Croatia and the former Yugoslav Republic of Macedonia by exploring the benefits and limitations of EU policymaking on gender equality in the western Balkans. She concludes that the EU accession processes in Croatia and FYR Macedonia have been beneficial for the introduction of new gender equality legislation and institutional mechanisms to advance gender equality. She identifies three main areas of impact:

- The introduction of new gender legislation
- The introduction of institutional mechanisms to promote gender equality
- The strengthening of the legitimacy and policy influence ofthe women's movement

In Table 2.1, these conclusions are adapted to the case of Serbia to highlight the institutional and legislative framework on gender equality.

Table 2.1: Gender equality legislation, policies, and institutions, Serbia

Transposition of EU gender equality legislation and policies into national law
• Law on Gender Equality, 2009
• Antidiscrimination Law, 2009
• Family Law, 2011
• Labor Law, 2014
Establishment of national mechanisms to advance gender equality
• Coordination Body for Gender Equality
• Gender Equality Council
• Committee on Human and Minority Rights and Gender Equality, National Assembly
• Deputy ombudsman for the rights of children
• Commissioner for the protection of equality
Positive impact on mobilization of the women's movement
• The EU encourages the creation and development of governmental and nongovernmental organizations in favor of women through funding and promotion within civil society

Source: Adapted from Spehar 2012.

Numerous research projects designed to shed more light on the position ofwomen in society have been supported through EU grants.[27] Likewise, through the Civil Society Facility Program,the EU has supported activist women's organizations.

Despite the robust framework for gender equality in Serbia, existing legislation and policies have not yet been fully implemented. In the "Serbia Progress Report,"the European Commission (EC 2014b) emphasizes that, although entities exist in Serbia that are responsible for implementation and the associated legislation on antidiscrimination and gender equality, effective implementation remains a major challenge, as follows:

- Laws on the dismissal of pregnant women and women on maternity leave, sexual harassment, and inequality in promotion and pay must be systematically enforced.
- Steps to tackle domestic violence and gender inequality in theworkplacehave been ineffective.

The European Commission finds that the strengthening of administrative capacity is a major challenge. Given the number of institutions monitoring gender equality issues andinvolved in implementation, the Commission notes that adequate resources and more effective coordination of the national machinery to promote gender equality should be ensured. This requires that mechanisms to coordinate the collection and sharing of data among all relevant actors in the system should be enhanced.

The recently published Gender Equality Index benchmarks Serbia with EU countries and shows that areas with low achievements and prominent gender gaps are related to the quality of work, access to financial resources, and social activities (domain of time). Compared with the EU member states Serbia's overall score of 40.6 points out of 100 puts it at the 22nd position. More precisely, it is lagging behind the EU average by 12 percentage points. Serbia has lower score than all other countries in the domain of work. Gender gaps in the dimension of work are pronounced and they are present in both sub-domains: participation and segregation and quality of work. In the domain of gender equality in access to financial resources, Serbia legs behind all EU member states except Romania. Regarding time use, women are disproportionately responsible for care activities and household work in the household and the family. On gender equality in decision making Serbia shows better scores due to the quotas in parliaments and a higher share of women in the Central bank. However further increase of political and economic power of women is still needed as index values are still far from the target of full equality.

[27] See http://www.gendernet.rs/rrpage.php?chapter=35 [In Serbian].

Women in the labor market

Gender discrimination in employment is prohibited under the Labor Law, the Law on Gender Equality, and the Antidiscrimination Law. The Law on Gender Equality stresses the "right to equal pay for equal work or work of equal value by the employee" (article 17); in the case of a violation, there is a penalty clause (article 54). The law also stipulates that private companies with more than 50 employees are obliged to draw up plansto eliminate discrimination in hiring, promotion, and pay. Such companies must pay men and women with similar positions equally, ensure that women can return to the same job after maternity leave, and apply gender-sensitive policies. Companies must report on how they are fulfilling their obligations under the law.

Policies that could boost women's access to economic opportunities have not been adequately implemented. Though gender-based discrimination is prohibited by law, the analysis in section 1 indicates thatwomen with the same work characteristics as men are paid almost 14 percent less. Women also face unequal access to the labor market. Across EU countries, gender gaps persist in labor markets, and women are still overrepresented in lower-paying sectors and receive less than men for equal work. Serbia is therefore not anoutlier. However, while the EU countries have been working on specific policies to raise women's participation in the labor market for decades, Serbia's experience in the promotion of gender equality in access to economic opportunity isrelatively limited. Thus, since the 1990s, EU countries have been promoting part-time employment as a tool for increasing labor market flexibility, creating balance between work and family life, and making it easier to enter the labor market (Eurofound 2009). In Serbia, this issue has not yet been adequately addressed.

Part-time working arrangements

The Labor Law provides for a relaxation of some regulations so as to open access to temporary and other flexible work arrangements to more women. For instance, occasional and temporary work arrangements offered by youth and student associations are no longer restricted by the age limit (up to 30 years of age), meaning that older individuals are now eligible for these jobs.

Work from home is defined in greater detail in the new Labor Law. Employers are now obliged to provide, install, and maintain any equipment used by at-home workers. The regulation on work-from-homejobs has been extended with the provision that wages cannot be calculated in an amount lower than the wages for similar work performed at employerworksites. Workloads and deadlines cannot be determined so as to prevent employees from exercising their right to vacation. The relevant contracts are no longer required to be registered at local government offices, which reduces the administrative burden on employers.

The new Labor Law does not institute any changes that significantly raise the share of part-time employment in total employment. The analysis in section 1 shows that, in the formal labor market, the share of part-time workers is

low among both women and men (4.8 percent and 3.1 percent, respectively). Prior to the implementation of the law, it was argued that the procedures for hiring and firing laid out in the labor code were rigid and that most employers met their needs in part-time work through short-term contracts, contracts with freelancers, or informal arrangements. The procedures for firing have been relaxed in the new law. The notice for dismissal has been reduced from 1–3 months to 8–30 days. If a worker has been wrongfully dismissed, the compensation has been set at the amount of the forgone wages, but no longer includes other types of compensation (travel costs, bonuses, and so on). This means the costs of firing have been lowered for employers. The duration of temporary work contracts has been extended from 12 to 24 months. Employers must now ensure the same working conditions for full- and part-time workers, and they are also obliged to consider worker requests to be transferred from full- to part-time work and vice versa.

Labor taxes may be one reason for thesmall share of part-time employment in total formal employment. Several studies argue that it is not the Labor Law, but other regulations that create disincentives for part-time work (Koettl2013; Ranđjelović and Žarković-Rakić 2013). The tax wedge in Serbia is average at higher wage levels, but high at lower wage levels. In most European countries, labor taxes increase significantly with the increase in wages. In many cases, the increase is by more than 10 percent as wages rise from 33 to 100 percent of the average wage. In Serbia, labor taxes increase by only 2.6 percent within the same range of the rise in wages (Koettl 2013). The relatively high labor tax burden on employees at lower pay has several causes, but is mainly associated with the way social security contributions arecalculated.

The labor tax reforms after 2001 eliminated fringe benefits. Two of the most important benefits of this kind were cash allowances in the form of a hot meal allowance (paid monthly) and the regres, an annual leave allowance. Given that fringe benefits were untaxed and paid in equal lump sum amounts to each worker, the elimination of these benefits contributed to the regressive character of the labor tax system in effect until 2006. In 2007, the personal income tax rate was reduced from 14 percent to 12 percent and then, in 2013, to 10 percent, and a zero tax bracket—20 percent of the average net wage—was introduced. However, the burden on labor did not change considerably given that social security contributions dominate in the tax wedge (Žarković-Rakić 2015).

Abolishing the mandatory minimum social security contribution could be beneficial by expanding part-time work. For employers, part-time work is relatively more expensive than full-time workin terms of the tax wedge. The mandatory minimum social security contribution, currently set at 35 percent of the average wage, is applied regardless of the hours actually worked, meaning that part-time workers are also responsible to pay it. This may be one of the reasons for the small share of part-time employment in total formal employment and for the roughly equal participation of men and women in formal part-time jobs, unlike in most EU countries. Elimination of the mandatory minimum might create higher demand for part-time work through lower labor costs. Ranđjelović and Žarković-Rakić (2013) show that,on the supply side, this policy reform would reduce average tax rates by more than it would reduce the marginal rates, implying larger effects on the labor

force participation than on the number of working hours. A decline in both tax rates is most pronounced among lower-income groups given that these groups are most affected by the mandatory minimum contribution.

There is, however, a possibility that, once contributions become proportional to wages following the elimination of the minimum social security contribution, those individuals working part-time, who are more often women, could then accumulate lower pensions. While this might be the case, the high share of the wages of part-time workers currently accruing to social security, given the minimum contribution, could be restricting that segment of the labor market in the formal economy. This may be encouraging part-time workers—many of whom are women—into informality, where, of course, there are no pensions at all.

The design of two major social benefits may be providing additional disincentives in the take-up of part-time jobs. The withdrawal rate from monetary social assistance and the child allowance may reduce net worker income and make formal part-time work at low wages an unattractive option. Thus, for example, for a single-parent family with two children, two child allowances and a social assistance benefit represents SRD 21,921. Let's assume the single parent has a low earnings capacity—that is, low educational attainment, coupled with a lack of work experience—and can only find a job at the minimum wage.[28] If the single parent chooses to work part time, the net wage of this individual would be SRD 9,294. The family would keep both child allowances, but the amount of social assistance would be considerably less. According to the current design of the system, the social assistance benefit would equal the difference between the amount of the benefit to which the family is entitled and the income of the family (the net wage), that is, SRD 5,763 (SRD 15,057– SRD 9,294). Thus, the total labor and nonlaborincome of this single parent after finding a low-paying part-time job would be equal to the income if the single parent relied solely on welfare (table 2.2, column 4).

Net wage+ remaining social assistance benefit amount + child allowance=
SRD 9,294+SRD 5,763+SRD 6,864=SRD 21,921 (1)

Table 2.2: Comparing incomes in and out of work among individuals relying on welfare

	Monetary social assistance	Child allowance	Total nonlabor income (1 + 2)	Total income after finding a job
	1	2	3	4
Single-parent family with two children	15,057	2(3,432) = 6,864	21,921	21,921
Single-parent family with one child	12,234	3,432	15,666	15,666
Two-parent family with two children; one parent finds a job	16,469	2(2,640) = 5,280	21,749	21,749
Two-parent family with two children; both parents find jobs	16,469	5,280	21,749	27,174

Note: We assume parents choose part-time work at the minimum wage.

[28] This is a reasonable assumption given that, according to 2013 SILC data, 23 percentof social benefit recipients had no education; 35 percenthad completed primary school; 25 percent had lower-secondary educational attainment (three-year program); and 13 percent had higher-secondary educational attainment (four-year program).

It pays to work instead of relying on welfare only among households in which both parents manage to find part-time jobs at the minimum wage. The calculations in Table 2.2 do not include additional support to benefit recipients such as utility subsidies, one-off social assistance payments, free meals, scholarships for students, and social housing—all financed through municipal budgets—that increase nonlabor income and make employment an even less attractive option. If income from informal employment is included in the calculations,the incentive to take up a part-time job in the formal sector is further diminished.

Reducing the withdrawal rate of the social assistance benefit could boost the incentive for welfare recipients to seek part-time work. Publicly available statistics on welfare recipients do not include information on the number of households that receive both the monetary social assistance benefit and the child allowance. However, research based on administrative data shows that almost all households with children that receive the monetary social assistance benefit are also beneficiaries of thechild allowance (UNICEF 2012). Analysis in section 1 shows that receiving benefits decreases the economic participation of women much more than the participation of men. Measures to tackle the disincentive effects of welfare payments are thus needed to expand participation of women in the labor market. A starting point might be a reduction in the withdrawal rate of the monetary social assistance benefit. This would allow benefit recipients to work and receive part of the benefit, thereby increasing their incentives to look for formal sector jobs.

The Ministry of Labor, Employment, Veterans, and Social Policy has recently proposed several measures to expand labor force participation among monetary social assistance recipients given that half of them are able-bodied.[29] In a majority of cases, however, the measures areidentical to provisions in the Social Welfare Law. The changes in the law in 2004 and in 2011 required greater labor force participation among able-bodied benefit recipients mainly through the requirement to register at the National Employment Service (NES) and join active labor market programs. In reality, not much has changed in the participation of beneficiaries in the labor market given that the important feature of benefit design has remained the same: the withdrawal rate.

An in-work benefit scheme would help top up the incomes of people with low earnings capacity and provide a stimulus for their labor market engagement. The ministry recently introduced a measure aimed at the greater participation of welfare recipients in the National Action Employment Plan for 2015. The measure involves a wage subsidy or in-work benefit available to able-bodied social assistance benefit recipients who are registered with the NES. The wage subsidy, RSD 10,000, which is equal to the minimum part-time wage, is assigned for a year, and private sector employersare obliged to retain the worker-recipients for 12 months after the subsidy expires.

A central motive for the introduction of in-work benefits in the United Kingdom in the form of a working family tax credit was the stubbornly low levels of labor market participation among single mothers and women with low educational attain-

[29] This is so according to the decree on social inclusion measures for monetary social assistance beneficiaries.

ment at a time when participation of other women was on a rising trend (Blundell 2006). Research on Serbia shows that the introduction of in-work benefits would reduce economic inactivity by an average of 5 percentage points (Randjelović et al. 2013). Because of the large gender gap in economic activity, expanding the scope of these types of policies from social benefit recipients to the general population should be considered if the employment effects of this new measure prove positive.

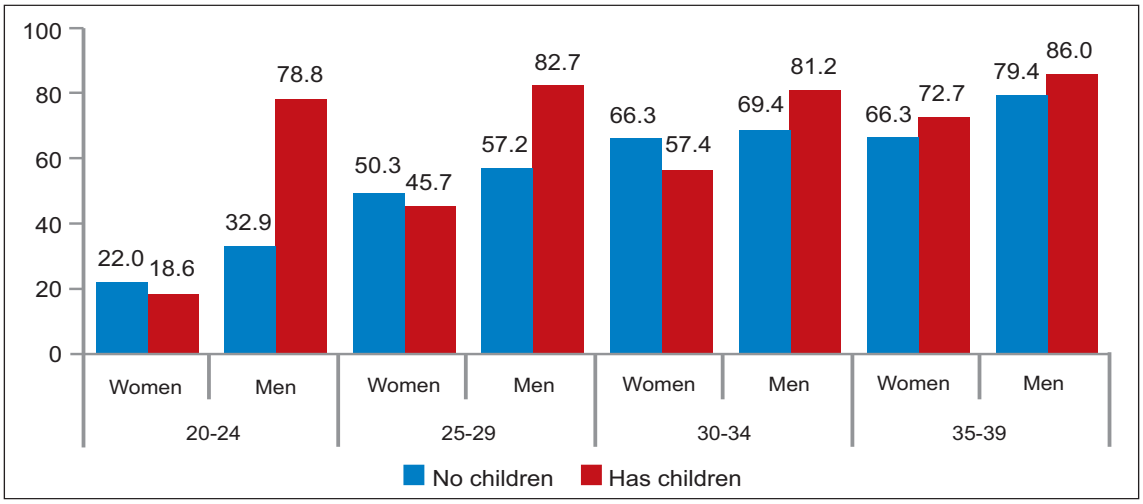
Reconciliation of work and family life

The document on the 2010–15 European strategy to foster equality between women and men notes the following:

> [The] impact of parenthood on labor market participation is still very different for women and men in the EU today because women continue to shoulder a disproportionate part of the responsibilities involved in running a family. . . . Member States which have put reconciliation policies in place are seeing high numbers of both women and men in work and relatively sustainable birth rates (EC 2010, 4).

The presence of children in the household seems to be a key factor behind the differences in the employment rates of men and women in Serbia. Data of the 2013 SILC show that the differences in employment rates among men and women with children are considerable, ranging from 37.0percentage pointsin the 25–29 age-group to 14.0 percentage points in the 35–39 age-group (Figure 2.3).[30] Women with children exhibit a 5 to 10 percentage points lower employment rates than women without children.[31]

Figure 2.3. Employment rates, by genderand with and without children



Source: Calculations based on 2013 SILC data.

[30] Estimates for the 20–24 age-group are not reliable because of the small sample size.

[31] The sample size in each age-group in Figure 1 is relatively small and therefore does not allow for further cross-tabulation to compare the characteristics of labor market participants and nonparticipants within age-groups. Furthermore, survey questions to explore this issue are limited.For example, the SILC does not include a question about the reasons for nonparticipation.

Labor force participation among women who have children is responsive to the availability and cost of childcare (Del Boca 2002; Del Boca and Vuri 2007; Haan and Wrohlich 2009). Public childcare services are provided by local municipalities. The Preparatory Preschool Program, which has been mandatory since 2007, allows children in the year prior to enrollment in primary school to acquire knowledge and skills. Preschool education is not mandatory for children under the age of 5 years and 6 months. Around 20 percent of parents do not pay for their children's attendance at preschool institutions; 32 percent of parents pay up to 50 percent of the fee; 12 percent pay more than 50 percent; and 36 percent pay the full fee (Government of Serbia 2011).

Several studies have assessed the availability and use of childcare services based on separate data sources (Baucal and Ranković2010; Sekulić 2012; UNICEF 2012). UNICEF (2012) emphasizes the lack of available data and the inconsistencies among data and makes several recommendations, as follows:

- SORS and the Ministry of Education should harmonize methodologies in data collection, processing, and presentation on preschool education. The frequency of data collection should be aligned in terms of the school year versus the calendar year.
- Statistics on preschool education should also be aligned with international practice, particularly with the EU, to enable comparison across countries.
- Instruments for data collection should be revised to include parameters that enable analysis of various preschool programs in terms of the number of children attending, gender, and rural or urban residence.
- The availability of data on children in vulnerable groups who are in preschool should be improved.

Most of the issues raised by UNICEF could be solved if SILC data on Serbia were readily available. Assessments of the availability and use of childcare services in the EU have been enhanced because of the introduction of EU-SILC data. This dataset contains rather detailed information on childcare services. SILC questions and responses cover the use of formal childcare arrangements, the use of other arrangements, and the number of hours per week programs are run. Formal arrangements are classified according to type, including preschool or equivalent, compulsory education, center-based services outside school hours, and collective crèches or other daycare centers, including family daycare organized or managed by public or private structures. Other arrangements include childcare by professionals at the homes of the children or at the homesof the professionals, care by grandparents, care by other household members besides parents, other relatives, friends, or neighbors (EC 2009).

In 2002, at the Barcelona Summit, the European Commission concluded that member states should remove disincentives to female labor force participation and, taking into account the demand for childcare facilities and in line with national patterns of provision, strive to provide childcare by 2010 to (1) at least 90 percent of children between 3 years of age and the mandatory school age and (2) at least 33 percent of children under 3 years of age (Plantenga and Siegel 2004). Provision is measured as the children cared for through formal arrangements other than by the

family as a share of all children in the same age-group, that is, children under 3 or between 3 and the mandatory school age. A report on the progress toward the Barcelona targets finds that only eight countries have met the targets agreed by EU countries on the availability and accessibility of childcare services (RAND Europe 2014). The European Commission has therefore emphasized that member states need to boost their efforts to improve childcare provision if the EU is to reach the employment target of 75 percentby 2020 (EC 2013).

The use of formal facilities for childcare up to school age in Serbia is far below Barcelona targets. The use of childcare services for under-3-year-olds is 17 percentage points below the Barcelona target (Table 2.4). This is similar to the situation in other Eastern European countries such as Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, and Slovakia (EC 2014b; RAND Europe 2014). The share of children between the age of 3 and the mandatory school age cared for through formal arrangements is also quite low: 30 percentage points below the Barcelona target and similar only to the case of Bulgaria, Croatia, and Poland. In all other countries of the EU, more than 60 percent of children in this age-group are receiving care in the formal system. This may be because obligatory preparatory preschool programs start earlier in most EU countries than in Serbia, where they start at age 5 years and 6 months.

Table 2.4: The use of formal childcare services based on Barcelona targets, Serbia

	Under 3 years of age	3 to mandatory school age
Number of children in the age bracket	207,045	251,205
Kindergarten enrollment		
Absolute number	33,923	149,195
Rate	16.4%	59.4%
Care by relatives or others		
Absolute number	93,386	117,649
Share	45.1%	46.8%

Source: Based on SILC data.

The relatively low utilization of formal childcare services in Serbia is explained by the lack of sufficient services and by household decision-making processes influenced by restrictive social norms and negative perceptions of quality. Ivić, Pešikan, and Jankov (2012) find that, although the number of childcare institutions has risen every year in the last 20 years, it is still insufficient to cover all children of preschool age. In 2015, the shortage was almost 15,000 preschool places: 4,000 children who could not be accepted, and 11,000 who had been accepted but who represented an excess in capacity (SORS 2015b).

Ivić, Pešikan, and Jankov (2012) also show that the geographical coverage of preschool institutions is poor. Thus, these institutions are lacking in underdeveloped, low-income, and rural areas where the need for early childhood development and stimulation is greatest. UNICEF (2012) has shown that there are significant regional differences in enrollment rates in preschool education among children from 3 years to 5 years and 6 months, that is, up to the age of the obligatory Preparatory Preschool Program. The municipalities with the highest coverage in preschool

education were located in Belgrade or in Vojvodina, in the north. Two-thirds of the municipalities with enrollment rates that were well below the national average fell into the group of devastated municipalities according to the Law on Regional Development.[32]

Qualitative surveys reveal that the benefits of formal childcare recognized by urban and rural residents include socialization among children of a same age-group; enhanced early childhood social and behavioral education; the development of a sense of independence, creative skills, and vocabulary; and behavioral and psychological preparation for entry into basic education.[33] However, although these benefits are expressed less frequently in Serbia than in neighboring countries, there are also concerns about the quality of preschool facilities, particularly because of the overcrowding in public childcare centers (World Bank 2015b).

The availability of childcare services seems to be important to women's labor market access in Serbia. The decision of women, especially women with young children, to rely on formal childcare services often occurs simultaneously with the decision to participate in the labor market. Qualitative surveys confirm that, among many actually or potentially employed women with no access to informal care through relatives or friends, the provision of affordable formal care services is crucial to employment (World Bank 2015b). Particularly in Serbia, survey responses mentioning formal care utilization for under-2-year-olds were frequent. One rural resident answered as follows:

> *There should be a kindergarten and a nursery for children from their earliest age, and they should be open 8 hours a day, so that we can work. Children would spend time with each other, and we would be able to earn money.*

The lack of childcare facilities is perceived to impact the ability of women to work disproportionately more compared with men, in line with quantitative LFS data, which show that, among the inactive who are not looking for work because of the need to care for children or older family members, 96.1 percent are women (SORS 2015a;World Bank 2014).

In countries with low levels of investment in childcare services, the only way for mothers to enter the labor market is if grandparents look after their children (Eurofound 2009). In Serbia, almost 50 percent of children 0 to the age of mandatory schooling are cared for through informal arrangements (see Table 3). However, the scope of the influence of informal childcare on the labor force participation ofmothers is not uniform across countries. Thus, Aassve, Arpino, and Goisis (2012) show that the care provided by grandparents has a significant influence on the decision ofmothers to enter the labor market in Bulgaria, France, Germany, and Hungary, but

---

[32] The level of municipal development is measured using a composite indicator based on income and municipal budgets, the rate of population growth or decline, the unemployment rate, educational attainment among residents, and the extent of urban municipal areas.

[33] Even women with access to informal care provided by the children's grandmothers said they would opt for formal services because of the benefits for children. In contrast, some men said there were no added benefits to relying on formal care centers, and, so, they would not waste their money on these centers as long as informal care was available within the family.

not in Georgia, the Netherlands, or the Russian Federation. Given that research on other countries indicates that both formal and informal care arrangements have a major impact on female labor force participation, estimating the size of the effect in Serbia is important.

Recent policy changes in other aspects of reconciliation policy

A revision of the Labor Law that was adopted by the National Assembly in July 2014 added flexibility to the labor market and reduced some worker rights. Pregnant women are protected from dismissal on the grounds of nonperformance courtesy of a last-minute amendment.

Flexible working hours

Flexible working hours are regulated by the 2005 Labor Law, amended in July 2014. However, the law does not explicitly define flexible working hours. Rather, it covers the redistribution of working time, which mainly involves the regulation of overtime. Employers may redistribute working hours if specific tasks so require, to organize work more rationally, or for other reasons, but the total average working hours of each employee over 6 months, or 10 months if the work is regulated by a collective agreement, cannot be longer than the full average working hours.

Parental, maternity, and paternity leave

The current maternity leave regulations are generous. As stipulated by the Labor Lawand the Law on Financial Support for Families with Children, employed women have the right to maternity leave for pregnancy, childbirth, and childcare. Women may begin maternity leave 45 days before the envisaged childbirth at the earliest, but the leave becomes compulsory 28 days before childbirth. Maternity leave lasts three months from the day of delivery, after which the woman is entitled to parental leave for the purpose of childcare for another nine months, for a total of one year for the first and second children and two years for the third and fourth children.

Fathers take advantage of parental leave in a few cases. During the first three months after the birth of a child, only mothers can use parental leave. In special circumstances such as serious health problems of a mother, abandonment by the mother of the child, or death of the mother, a father may use parental leave for the first three months. Thereafter and for up to 12 months, parents can use parental leave in alternating sequence if this is more convenient. The salary and wage replacement rate is a full 100 percent during parental leave, and this benefit is paid by

the government. Maternity and parental leave count as pensionable service. According to SORS, 65,554 babies were born in 2013, but only 225 fathers took parental leave. Of these, 128 were living in Belgrade.

The Labor Law was amended in April 2013 to provide greater protection for pregnant women and women on maternity leave. The amendments instituted three main changes. First, women who return to work before the end of their maternity leave may take 90-minute breaks or reduce their working hours to breastfeed their children. The break is included among paid working hours. Second, fixed-term contracts are automatically extended to the end of maternity leave for pregnant women, women on maternity leave, or women who are absent from work to care for children. Third,the employment of pregnant women, women on maternity leave, or women who are absent from work to care for children may not be terminated by employers who have been informed of the situation. Women who are affected have 30 days from the receipt of the termination notice to inform their employers and submit proof of their status.

Leave to care for elderly dependents

There are no specific regulations providing for leave to care for elderly dependents. However, special services are available to help care for older individuals at home or within eldercare establishments.

Active labor market programs

Budget expenditures on active labor market programs has declined in Serbia since 2012. Despite the deterioration in key labor market indicators at the beginning of 2011 because of the economic crisis and the earlier announcements by the government that funds for active labor market policies (ALMPs) would be increased, the relevant budgetary resources were significantly reduced in 2012 and have not been bolstered since. In 2011, the annual expenditures equaled 0.2 percent of gross domestic product (GDP), but dropped to 0.1 percentin 2012 and were reduced additionally in subsequent years to somewhat less than 0.1 percent. This conflicts with the 2010–20 National Employment Strategy, which provides that ALMPfunds were to be raised to 0.4 percent of GDP by 2013 and are to be raised to 0.5 percent of GDP by 2020.

Women are the focus of ALMPs mainly in the efforts to raise their employability and their job skills. Unemployed women who are registered with the NES vary substantially in their participation across three major categories of active labor market programs: job-brokering, career guidance and counseling, and wage subsidies. Data of NES (2013) suggest that women are active in job-brokering programs. For instance, the participation of women in job clubs reaches almost 70 percent. Among career guidance and counseling programs, women participate most fre-

quently, at almost 78 percent, in efficiency training. Women account for 71 percent of the participants in job selection and classification measures. Employers who rely on wage subsidies employ more men than women (55 percent and 45 percent, respectively). Similarly, 41 percent of the individuals who receive the self-employment subsidy are women. Among continuing education and training programs, women are especially active in vocational training (68 percent of participants) and training with precertified employers (55 percent); they participate least in public works programs (38 percent).

The fact that women benefit more from ALMPs may reflect the fact that women have more limited access to contact networks and informal connections in seeking work and therefore must rely more on the relatively less effective formal mechanisms. The 2014 LFS asked respondents about the methods they use most often to search for jobs (SORS 2015a). It confirms that women use the NES more frequently than men (82 percentvs. 76 percent), while men rely on friends and relatives more often (88 percent vs. 83 percent).

The 2015 National Action Employment Plan, the main instrument for ALMP implementation, sets an increase in employment among women as a priority. It envisages including women in difficult-to-employ groups in ALMP initiatives, such as lone mothers, unemployed women older than 45, women below 30 years of age who have no work experience, and social assistance beneficiaries. The plan also promotes entrepreneurship among women by offering government-financed training and subsidies for self-employment. The plan likewise provides incentives for employers to create conditions favorable to flexible work arrangements for women (work from home, part-time work, and so on). The plan establishes new active labor market measures for able-bodied recipients of monetary social assistance, which is supplied to individuals registered at the NES in the form of a wage subsidy (see above). Given the analysis above on the incentive effects of the tax and benefit system on labor market participation among welfare recipients, these measures could have positive results in women's employment.

Several ALMP evaluations have been carried out, but without examining the gender perspective. In a net impact assessment, Bonin and Rinne (2014) focus on a 2006 pilot public works program in three municipalities. According to their estimates, the positive impact of the program appears to be more substantial if judged on the basis of subjective well-being rather than the immediate labor market outcomes.

Arandarenko and Krstić (2008) have conducted a macroeconomic evaluation of the effectiveness of ALMPs implemented in 2002–07. Thus, they analyze the impact of self-employment promotion measures by comparing program costs and the number of self-employed revealed in the LFS data. Their impact assessment suggests that career guidance and counseling are by far the most cost-effective programs in terms of spending per participant and spending per employed individual. The impact of other programs may have been short-lived and limited to the relative position of the targeted groups. For instance, continuing education programs among trainees may have assisted young, well-educated, first-time job-seekers to enhance their relative position in the market. Self-employment programs and regional wage-subsidy programs for employers did not prevent the extent of formal

self-employment and wage employment from slumping. In both cases, other forces were apparently much stronger than the ALMPs. Assessments of relatively new public works programs show that the temporary employment surge provided by public works does not improve the chances that beneficiaries will subsequently find jobs.

Petrović (2010) bases her qualitative evaluation of public works on a small number of interviews with recipients of monetary social assistance. Although the positive effects of engagement with work on the subjective well-being of social assistance recipients appear to be substantial, only one among the 20 individuals interviewed managed to find and retain a job after the end of the public works program.

Nojković and Vujić (2010) have carried out a net impact assessment of the Severance to Job Program, which supported redundant workers in privatized state-owned firms in 2007–09 by enabling them to invest their severance payments into existing or new companies. The assessment indicates that the effect of project participation was significant on employment and employability, but not on self-assessed well-being and life satisfaction.

Andjelkovic and Golicin (2010) present a standard process evaluation of public works programs in 2008–09.They assess the design and implementation of public works in terms of their influence on vulnerable groups such as Roma, internally displaced persons, and the long-term unemployed.They show that public works have been beneficial mostly in less well developed municipalities. Participants in the programs, after temporary employment that lasts three to six months, were usually back on the NES registry. Few found stable jobs. The authors stress that private employers should be encouraged to take part in public works programs, given that public sector enterprises and nongovernmental organizations are leading employers, but that, because of austerity measures, public sector firms will not be hiring.

Ognjenović (2007) uses the propensity score-matching method to estimate the average treatment effects of several ALMPs, including computer literacy training, active job-seeking training, and continuing education among trainee-volunteers. However, the data in the analysis are representative of only four municipalities. The author finds that the estimated impacts of active labor market programs on the probability of employment are positive and statistically significant.

An impact evaluation has recently been carried out on active labor market programs targeting disadvantaged youth that were implemented by the NES under the aegis of the Joint Program on Youth Employment and Migration in2010–12 (FREN and ILO 2014). The key research question was whether participation in the joint program raised the probability that participants would find and retain gainful employment. The research found that the effects of participation in the programs were significant in main labor market outcomes such as probability of employment and economic inactivity, accompanied by a significantly positive effect on subjective well-being, that is,the current financial situation of program participants compared with the situation before the programs and the chance of findingwork. Programparticipation raised the probability of employment by about 7.6 percent relative to nonparticipation.

None of these evaluations included a gender perspective, that is, none of the authors have estimated separate program impacts on men and women.

Concluding remarks

More extensive economic opportunities among women can contribute to stronger and more equitable growth by raising human capital and labor productivity and by mobilizing underutilized labor supply. Achieving equality between men and women in Serbia is still a substantial challenge despite the many initiatives to build gender-equalizing institutional infrastructure. In a recent progress report, the European Commission (EC 2014b) concludes that Serbia's rich legal and regulatory framework has not been fully implemented. Numerous institutions and governmental entities require more resources and better coordination in their activities. The Gender Equality Index released at the beginning of 2016 shows that areas with low achievements and prominent gender gaps are related to the quality of work, access to financial resources, and social activities (domain of time). Compared with the EU member states Serbia's overall score of 40.6 points out of 100 puts it at the 22nd position. More precisely, Serbia is lagging behind the EU average by 12 percentage points.

Gender inequalities in education and health have narrowed. This report shows that women and men in Serbia have equal access to health care. Serbia's best performance in the Gender Equality Index is in the domain of health in comparison to other domains of the Index. Although gaps in health between Serbia and EU are the smallest, Serbia is positioned among the four countries with the lowest scores. In education, there are slightly more women with university degrees, but women also outnumber men among people whose highest level of educational attainment is primary school. However, comparison with EU member states using the Gender Equality Index suggests that improvements are needed to increase the share of tertiary education graduates among both women and men, but also to decrease segregation according to fields of education. They are also needed to increase lifelong learning among both men and women.

Significant gaps remain in women's access to jobs. Compared to EU member states, Serbia has the lowest score of the Gender Equality Index than any other country in the domain of work. Gender gaps in this dimension are pronounced and they are present in both sub-domains: participation and segregation and quality of work. For women that are active in the labor force, they have an equal chance of being employed than men with similar characteristics. However, because of much higher female inactivity rates, fewer women are competing with men in searching for work, which leads to a gender employment gap of 13 percentage points. Furthermore, women are less frequently employed in full-time equivalent jobs and work less frequently with flexible working hours. Their working life is 5 years shorter than men's. Women constitute majority in job position in the social sector of the economy: education, health and social protection.

Our results indicate that women are more likely than men to be inactive because of family- and care-related activities. Women in Serbia spend more time in care activities, and have less time for social activities compared to the females in the EU, as also suggested by the Gender Equality Index.

The employment rate is lower among women with children than among women without children, while the opposite is true among men. Women are more often involved in childcare duties, especially if care services are lacking. Although the number of childcare establishments has increased every year in the last 20 years, it is still not sufficient to cover all children of preschool age. Thus, the share of children below mandatory school age who are attending formal childcare establishments is quite small. A rise in the number of preschool institutions is needed to reduce the burden of unpaid work among working mothers. It could also create jobs in childcare and elderly care and boost female labor force participation. Childcare services provided by women therefore merit greater attention among policy makers and should be fostered given their supporting role in the economy.

In addition to the bulk of unpaid work in childcare, women represent a majority among the unpaid family members in agriculture, where most informal work is performed. This is reflected in the relatively poor standard of living among this group, with potential for prolonged effects on poverty rates among women later in life, especially because of the large gender gap in pension coverage and the longer life expectancy among women. If rural women buy or inherit land, tradition obliges them to register the land in the names of their husbands or other male relatives. This and their lack of collateral and inability to access bank loans limit the opportunities of women in rural areas to engage in entrepreneurial activities. It takes time for social norms to evolve; so, policy makers and nongovernmental actors should initiate campaigns to raise women's awareness of their rights regarding inheritance legislation and the benefits of land title registration.

Reforming major benefit programs such as monetary social assistance so as to link them more closely to labor forceparticipation could increase the incentives for low-paid workers, including women, to join the formal labor market. An example of a reform of this type is the measure being undertaken through active labor market programs in 2016 to provide able-bodied benefit recipients with wage subsidies. If coupled with a reduction in the withdrawal rate of monetary social assistance, this could provide greater incentives for the labor market participation of welfare recipients with low earnings capacity. If this new active labor market measure proves to have a positive impact on employment, policy makers could consider extending it through an in-work benefit scheme for the general population. Abolishing the mandatory minimum social security contribution could likewise increase the number of part-time jobs among workers with low skills.

More policy-oriented research is needed to identify which ALMPs are more beneficial for women's access to more and better jobs. Then, increase in spending on programs that show to be effective could be considered.

Besides the lack of knowledge about what works best for women in terms of the active labour market programs, data gaps remain limiting the evidence available for policy. For instance, more effort should be invested to improve the statistics on pre-school education. Statistics should be aligned with international practice, particularly with the EU, to enable comparison across countries. Instruments for data collection should be revised to include parameters that enable analysis of various preschool programs in terms of the number of children attending, gender, and

rural or urban residence. The availability of data on children in vulnerable groups who are in preschool should be improved. Regarding time use, the last survey was conducted in 2011. It order to be able to monitor trends, it would be important to conduct a survey on a regular basis. Finally, in order to be able to address the problem of intersecting inequalities, as envisaged in the National Strategy for Gender Equality 2016-2020 it would be important to improve the quality of data for groups of women under risk of multiple discrimination such as: Roma, women older than 60 years, rural women, pregnant and women with dependent children, women victims of domestic violence, women with disabilities, lone mothers, women from ethnic minority groups.

Boosting economic growth and job creation is critical, alongside policies to remove disincentives and barriers to work for women. Once policies to support working woman have been put in place, the opportunities for part-time work are made more widely available, and other relevant elements of the regulatory framework areadequately implemented, one should not expect that a large number of women will immediately enter the labor market. The troubled labor market situationin Serbia – for both men and women - has been the outcome of the prolonged transition and privatization that left many people without jobs and of the recent economic downturns. Austerity measures that are to last until 2018 include cuts in public sector employment, which may represent a disproportionate blow to women workers. Nevertheless, even in a context of low labor demand, gender gaps suggest that leveling the playing field for men and women is necessary.

In parallel with policy actions to improve economic growth prospects, action should be taken on the discriminatory hiring practices against women. These practices are a reflection of social norms on childbearing and motherhood and of perceptions on women's roles in the family and society. Targeted communication strategies initiated by government entities and civil society organizations are needed to reduce bias and stereotypes. Promoting leadership on gender issues from the top in both politics and the economy could encourage others to shift their attitudes and behavior in support of more gender equality in all spheres of life.

SUMMARY OF POLICY PROPOSALS

Policy proposal	*Constraints that the policy addresses*
Full implementation of the legislative and regulatory framework to foster gender equality	To ensure that policy goals are fulfilled and gender equality is enhanced
Provision of adequate resources and better coordination of the national gender-equalizing machinery	To coordinate the activities of numerous institutions regulating gender equality to increase their efficiency and effectiveness
More engagement in campaigns to raise women's awareness of their rights	To increase women's awareness of their rights regarding inheritance legislation and the benefits of land title registration; this would contribute to the reduction of poverty among women in rural areas
Promoting leadership on gender issues from the top in both politics and the economy	To encourage others to shift their attitudes and behavior in support of gender equality in all spheres of life
Targeted communication strategies initiated by government entities and civil society organizations	To reduce bias and stereotypes , expand social acceptance of women in high-level positions, and, in this way, contribute to greater female participation in the formal labor force
Increase the number of preschool institutions	To provide reconciliation between family life and work among working mothers, thereby expanding the options for income earnings among women who are currently inactive or unemployed
Reduction of the social assistance benefit withdrawal rate	To augment the job-search incentives among welfare recipients with low earnings capacity
Elimination of the mandatory minimum social security contribution	To expand part-time work
Introduction of in-work benefits	To top up the earnings of people with low earnings capacity and add to their incentives to join the formal labor market
Include a gender perspective in evaluations of active labor market programs. Consider boosting spending on measures that prove to be effective	See what works in promoting employment among women and consider increase in spending on these programs

References

Aassve, A., B. Arpino, and A. Goisis. 2012. "Grandparenting and Mothers' Labour Force Participation: A Comparative Analysis Using the Generations and Gender Survey." *Demographic Research* 27 (3): 53–84.

Arandarenko, M. and Vukojević, V. 2008. "Labor Costs and Labor Taxes in the Western Balkans", u C. Bredenkamp, M. Gragnolati and V. Ramljak (ed.), *Enhancing Efficiency and Equity: Challenges and Reform Opportunities Facing Health and Pension Systems in the Western Balkans,* World Bank, Washington DC – Health, Nutrition and Population,119-160

Andjelkovic, B., and P. Golicin. 2010. "Evaluation of the Public Works Programme in Serbia in the Period 2008–2009." Paper presented at the World Bank's International Conference on Poverty and Social Inclusion in the Western Balkans, Brussels, December 14–15.

Arandarenko, M., and G. Krstić. 2008. "Impact Analysis of Employment Policy and Active Labour Market Programmes in the Republic of Serbia, 2003–2007." Poverty Reduction Strategy Implementation Focal Point,Deputy Prime Minister's Office, Belgrade.

Avlijaš, S., N. Ivanović, M. Vladisavljević, and S. Vujić. 2013. *Gender Pay Gap in the Western Balkan Countries: Evidence from Serbia, Macedonia, and Montenegro.* Belgrade: Foundation for the Advancement of Economics.

Babović, M. 2007. "The Position of Women on the Labour Market in Serbia. "United Nations Development Programme and Gender Equality Council, Government of Serbia, Belgrade.

Babovic, M. 2016. "Gender Equality Index 2016, Measuring gender equality in Serbia 2014" Social Inclusion and Poverty Reduction Unit Government of Republic of Serbia.

Baucal, A., and T. Ranković. 2010. "Education in Serbia: Thematic Review 2009." European Investment Bank, Belgrade.

Blundell, R. 2006. "Earned Income Tax Credit Policies: Impact and Optimality; The Adam Smith Lecture, 2005." *Labour Economics* 13 (4): 423–43.

Bonin, H., and U. Rinne. 2014. "'Beautiful Serbia': Objective and Subjective Outcomes of Active Labour Market Policy in a Transition Economy." *Economics of Transition* 22 (1): 43–67.

Catalyst. 2004. "The Bottom Line: Connecting Corporate Performance and Gender Diversity." Catalyst, New York.

Cuberes, D., and M. Teignier. 2015. "How Costly Are Labor Gender Gaps? Estimates for the Balkans and Turkey." Policy Research Working Paper 7319, World Bank, Washington, DC.

Del Boca, D. 2002. "The Effect of Child Care and Part Time Opportunities on Participation and Fertility Decisions in Italy." *Journal of Population Economics* 15 (3): 549–73.

Del Boca, D., and D. Vuri. 2007. "The Mismatch between Employment and Child Care in Italy: The Impact of Rationing." *Journal of Population Economics* 20 (4): 805–32.

Desvaux, G., S. Devillard-Hoellinger, and M. C. Meaney. 2008. "A Business Case for Women." McKinsey Quarterly (September).

EC (European Commission). 2009. "The Provision of Childcare Services: A Comparative Review of 30 European Countries." European Commission, Brussels.

———. 2011. "Strategy for Equality between Women and Men 2010–2015." European Union, Luxembourg.

———. 2013. "Barcelona Objectives: The Development of Childcare Facilities for Young Children in Europe with a View to Sustainable and Inclusive Growth." EC, Brussels. http://europa.eu/epic/news/2013/20130704-ec-progress-report-barcelona_en.htm.

———. 2014a. "The Structure of the European Education Systems 2014/15: Schematic Diagrams." Eurydice Facts and Figures, EC, Brussels. http://eacea.ec.europa.eu/education/eurydice/documents/facts_and_figures/education_structures_EN.pdf.

———. 2014b. "Serbia Progress Report." EC, Brussels.

Eurofound (European Foundation for the Improvement of Living and Working Conditions). 2009. "Caring for Children and Dependants: Effect on Careers of Young Workers." Background paper, Dublin, Eurofound.

Eurostat. 2010. *Europe in Figures: Eurostat Yearbook 2010.* Brussels: European Commission.

FREN (Foundation for the Advancement of Economics) and ILO (International Labour Organization). 2014. "Impact Evaluation of Active Labour Market Programmes Targeting Disadvantaged Youth: Key Findings." FREN and ILO, Belgrade.

Government of Serbia. 2014. *The Status of Social Exclusion and Poverty Trends in the Period 2011–2014 and Future Priorities.* Second National Report on Social Inclusion and Poverty Reduction in the Republic of Serbia (October). Belgrade: Government of Serbia.

Haan, P., and K. Wrohlich. 2009. "Can Child Care Policy Encourage Employment and Fertility? Evidence from a Structural Model." IZA Discussion Paper 4503, Institute for the Study of Labor, Bonn, Germany.

Ivić, I., A. Pešikan, and R. Jankov. 2012. "Situation Analysis of Educational Institutions Network, Human Resources,and Educational Statistic in Serbia." Ministry of Education, Belgrade.

Koettl, J. 2013. "Does Formal Work Pay in Serbia? The Role of Labor Taxes and Social Benefit Design in Providing Disincentives for Formal Work." In *Poverty and Exclu-*

sion in the Western Balkans: New Directions in Measurement and Policy, edited by C. Ruggeri Laderchi and S. Savastano, 133–54. Vol. 8 of *Economic Studies in Inequality, Social Exclusion, and Well-Being.* New York: Springer.

Krstic, G. 2009. *Tranzicija mladih od škole do posla u Srbiji: april—oktobar 2009.* Vlada Republike Srbije i MDG Achievement Fund.

Mijatović, B. 2014. "Poverty in Serbia 2011, 2012 and 2013." Social Inclusion and Poverty Reduction Unit, Government of Serbia, Belgrade.

NES (National Employment Service). 2013. "Izvestaj o radu Nacionalne sluzbe za zaposljavanje." NES, Belgrade.

OECD (Organisation for Economic Co-operation and Development). 2011a. "Women's Economic Empowerment." Issues Paper (April). DAC Network on Gender Equality, OECD, Paris.

———. 2011b. *Report on the Gender Initiative: Gender Equality in Education, Employment and Entrepreneurship.* Paris: OECD.

———. 2014. OECD (2014), *Health at a Glance: Europe 2014.* OECD Publishing.

Ognjenović, K. 2007. "The Use of Propensity Score-Matching Methods in Evaluation of Active Labour Market Programs in Serbia." *Economic Annals* 52 (172): 21–54.

Pavlovic-Babic, D. i Baucal, A. "Podrzi me, inspirise me. PISA 2012 u Srbiji. Institut za psihologiju Filozofskog fakulteta u Beogradu, Centar za primenjenu psihologiju

Petrović, M. 2010. "Subjective Well-Being of Social Assistance Recipients in Serbia: Experience of Public Work Participants." Paper presented at the World Bank's International Conference on Poverty and Social Inclusion in the Western Balkans, Brussels, December 14–15.

Plantenga, J., and M. Siegel. 2004. "European Childcare Strategies." Paper presented at the CMK Foundation of Childcare and the Ministry of Social Affairs and Employment of the Netherland's conference "Child Care in a Changing World," Groningen, the Netherlands, October 21–23.

Rand Europe. 2014. "Use of Childcare in theEU Member States and Progress towards the Barcelona Targets." Short Statistical Report 1 (April), European Commission, Brussels.

Ranđjelović, S., and J. Žarković-Rakić. 2013. "Improving Working Incentives: Evaluation of Tax Policy Reform Using SRMOD." *International Journal of Microsimulation* 6 (1): 157–76.

Ranđjelović, S., J. Žarković-Rakić, S. Vujić, and M. Vladisavljević. 2013. "Labour Supply and Inequality Effects of In-work Benefits." Argumenta Oeconomica.

Sekulić, J. 2012. *Uskladjivanje privatnog i profesionalnog zivota: Studija dostupnosti socijalnih usluga na lokalnom nivou*. Uprava za rodnu ravnopravnost, Belgrade.

SORS (Statistical Office of the Republic of Serbia). 2014a. *Women and Men in the Republic of Serbia.* Belgrade: SORS.

———. 2015a. “Labour Force Survey in the Republic of Serbia, 2014.” Bulletin 593, SORS, Belgrade.

———.2015b. “Ustanove za decu predskolskog uzrasta 2014/2015.” Bulletin 97, Belgrade, SORS.

Spehar, A. 2012. “This Far, but No Further? Benefits and Limitations of EU Gender Equality Policy Making in the Western Balkans.“ *East European Politics and Societies* 26 (2): 362–79.

UNICEF (United Nations Children’s Fund). 2012. “Investing in Early Childhood Education in Serbia: Costing Models for Ensuring Preschool Education for All.” UNICEF Working Paper (September), Belgrade, UNICEF-Serbia.

Vladisavljević, M., S. Avlijaš, and S. Vujić. 2015. “Gender Wage Inequality in the Western Balkans.” *In Inequalities during and after Transition in Central and Eastern Europe,* edited by C. Perugini and F. Pompei, 222–46. Studies in Economic Transition Series. London: Palgrave Macmillan.

World Bank. 2014. “Serbia: Economic Mobility, Jobs and Gender.” World Bank, Washington, DC.

———.2014. Global Findex Database http://www.worldbank.org/en/programs/globalfindex

———. 2015a. “Gender at a Glance: Serbia.” Report 100423 (March), Europe and Central Asia Team for Statistical Development, Poverty Global Practice, World Bank, Washington, DC.

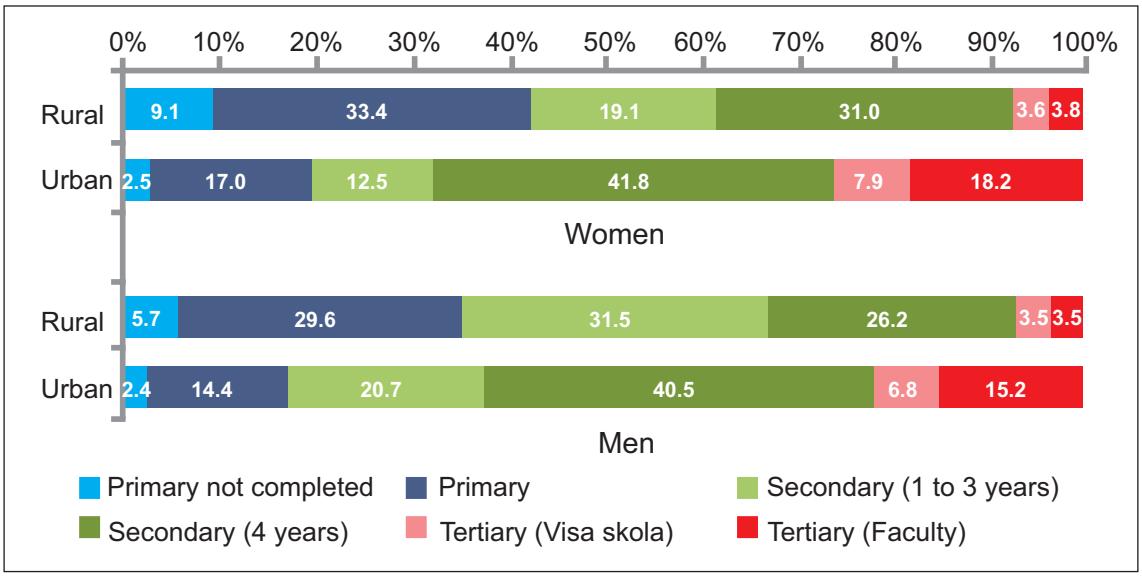
———. 2015b. “Why Should We Care about Care? The Role of Childcare and Eldercare in Serbia.” Working paper, World Bank, Washington, DC.

Žarković-Rakić, J. 2015. “Employment Effects of Tax Cuts in a Transition Country: Evidence from Serbia.” *Post-Communist Economies* 27 (3): 395–410.

Appendix 1: Additional tables and figures

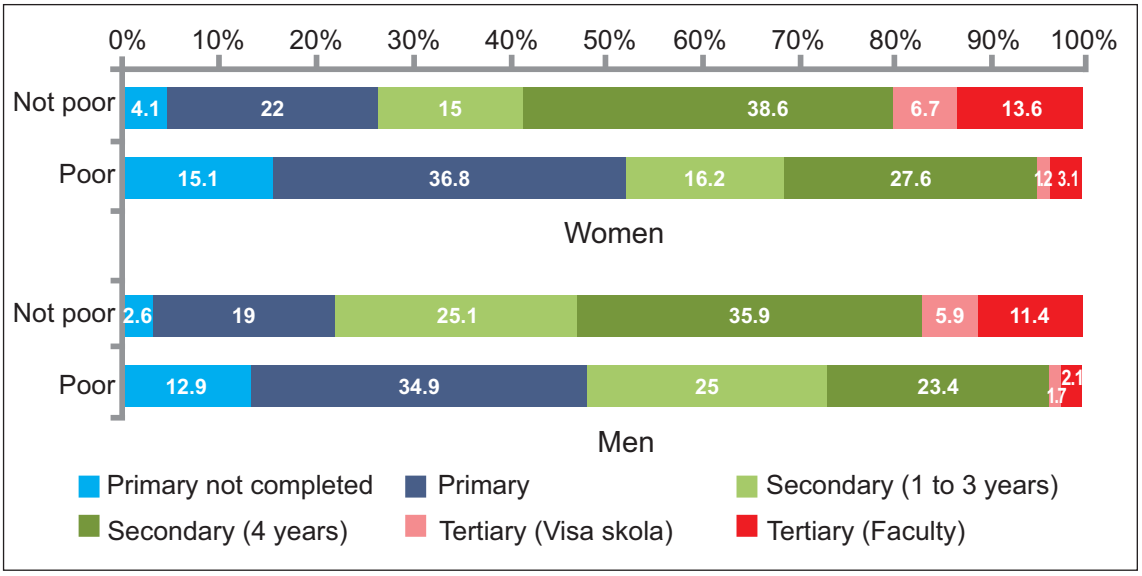
Gender equality in education and health

Figure A1: Educational attainment, by gender and urban or rural residence, 2013 (15–64, %)



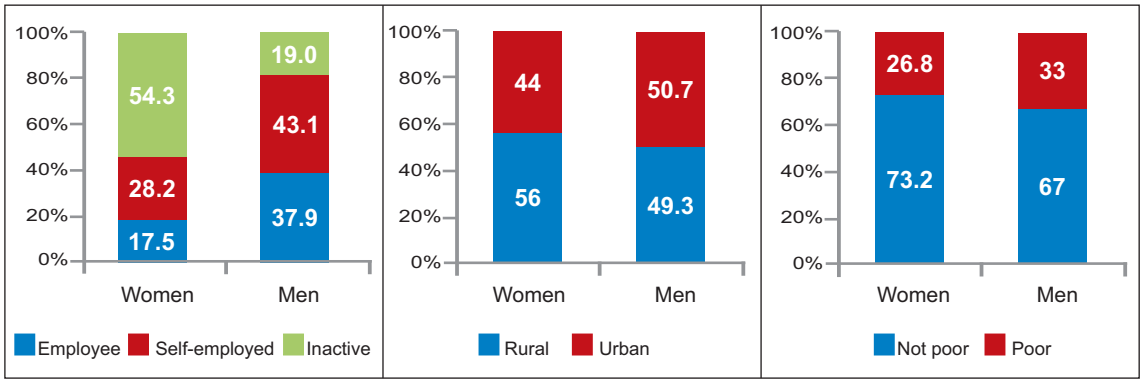
Source: Based on 2013 SILC data.

Figure A2: Detailed educational attainment, by gender and poverty status, 2013 (15–64, %)



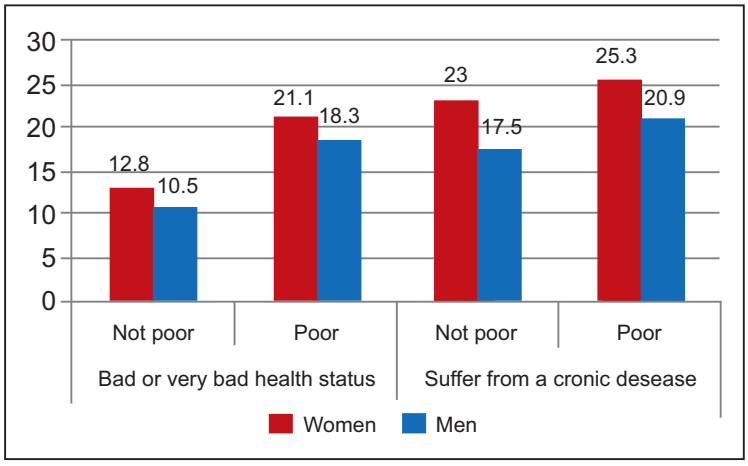
Source: Based on 2013 SILC data.

Figure A3: Early school leavers by gender, labor market status, urban or rural residence, and poverty status, 2013 (15–24, %)

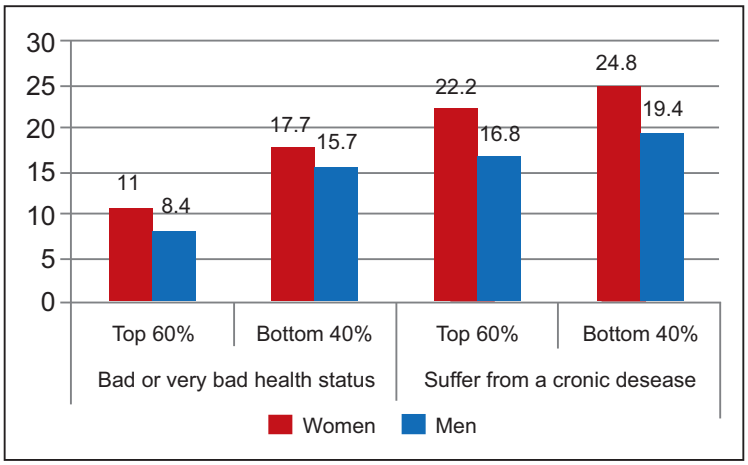


Source: Based on 2013 SILC data.
Note: Estimated values for women are marginally reliable because of the small sample size (n=83).

Figure A4:Main health indicators,by gender and poverty status . . .

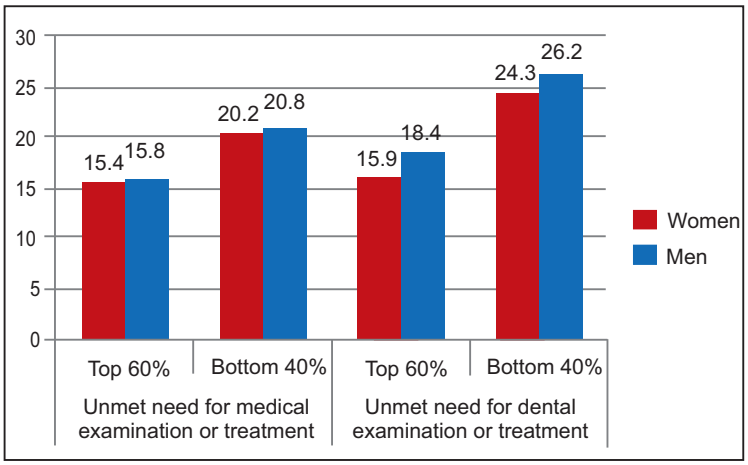


. . . .and gender and income status, 2013 (16–64, %)



Source: Based on 2013 SILC data.

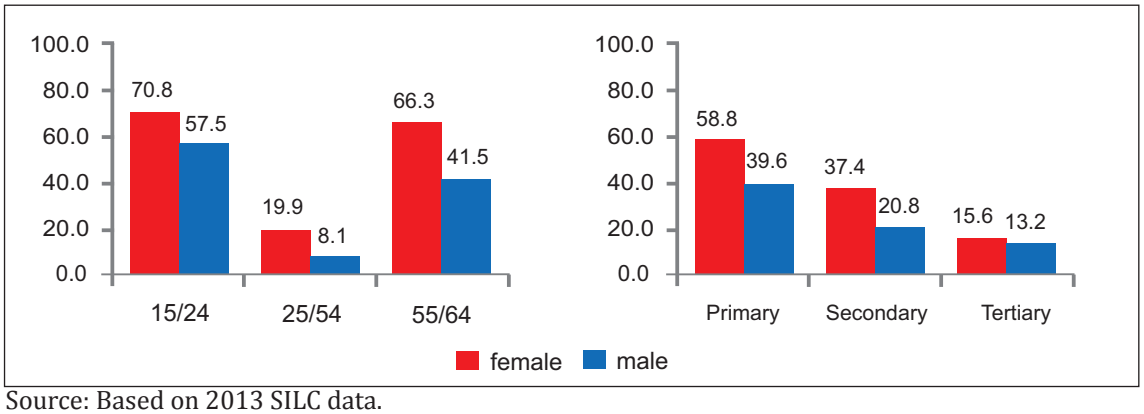
Figure A5: Unmet medical and dental needs, by gender and income status, 2013 (16–64, %)



Source: Based on 2013 SILC data.

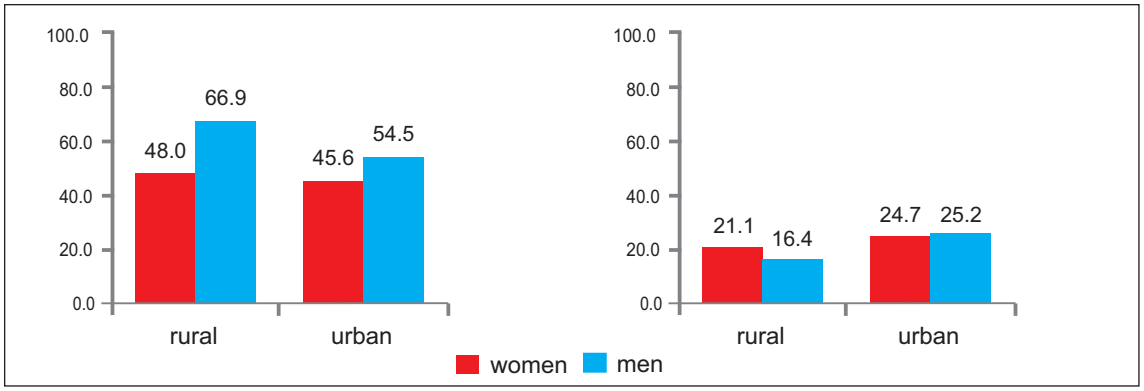
Gender gaps in labor market outcomes

Figure A6: Inactivity rates, by gender, age (left), and educational attainment (right), 2013 (%)

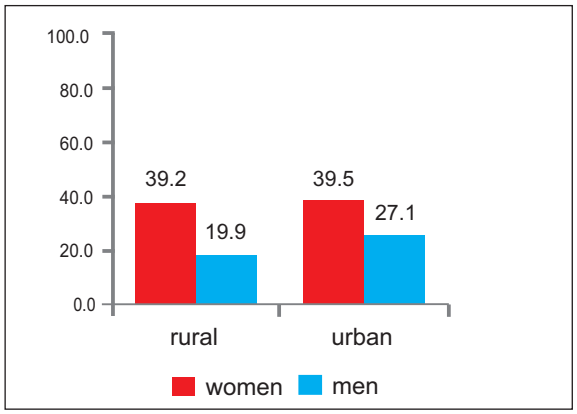


Source: Based on 2013 SILC data.

Figure A7: Employment (left) and unemployment (right) rates . . .



. . . and inactivity rates, by gender and urban or rural residence, 2013 (15–64, %)



Source: Based on 2013 SILC data.

Table A8: Determinants of labor market participation (probit model marginal effects)

Variables	S1	S2	S3	S4	S5
Woman	**−0.152*** **	**−0.188*** **	**−0.188*** **	**−0.188*** **	**−0.190*** **
	(0.008)	**(0.009)**	**(0.009)**	**(0.009)**	**(0.009)**
Age		0.110***	0.110***	0.107***	0.103***
		(0.002)	(0.002)	(0.002)	(0.002)
Age squared		**−0.001*** **	−0.001***	−0.001***	−0.001***
		(0.000)	(0.000)	(0.000)	(0.000)
educ3 = secondary		0.059***	0.086***	0.095***	0.093***
		(0.011)	(0.011)	(0.011)	(0.011)
educ3 = tertiary		0.195***	0.229***	0.238***	0.238***
		(0.011)	(0.010)	(0.010)	(0.010)
Residence			−0.103***	−0.102***	−0.099***
			(0.009)	(0.010)	(0.010)
region4 = Vojvodina			−0.007	−0.018	−0.017
			(0.014)	(0.014)	(0.014)
region4 = Zapadna Srbija			0.028**	0.022	0.020
			(0.013)	(0.014)	(0.014)
region4 = Istocna Srbija			0.038***	0.034**	0.032**
			(0.014)	(0.014)	(0.014)
Household pensions				−0.003***	−0.003***
				(0.000)	(0.000)
Household benefits (MSA + CA)				−0.008***	−0.009***
				(0.002)	(0.002)
Married					0.044***
					(0.012)
Number of children (<2)					−0.035
					(0.022)
Number of children (2–6)					0.031**
					(0.015)
Observations	13,606	13,606	13,606	13,606	13,606
chi2	322.5	3358	3430	3445	3445
p	0	0	0	0	0
r2_p	0.0214	0.272	0.282	0.299	0.301

Source: Based on 2013 SILC data.
Note: MSA = monetary social assistance. CA = child allowance.
Robust standard errors in parentheses: ***p<.01 **p<.05 *p<.1

Table A9: Determinants of female and male labor market participation (probit model coefficients and marginal effects)

Variables	Coefficients		Marginal effects	
				men
Age	0.304***	0.325***	0.115***	0.081***
	(0.010)	(0.010)	(0.004)	(0.003)
Age squared	−0.004***	−0.004***	−0.001***	−0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
educ3 = secondary	0.267***	0.283***	0.101***	0.073***
	(0.045)	(0.052)	(0.017)	(0.014)
educ3 = tertiary	0.996***	0.757***	0.317***	0.144***
	(0.066)	(0.084)	(0.016)	(0.011)
Residence	−0.238***	−0.413***	−0.089***	−0.100***
	(0.041)	(0.047)	(0.015)	(0.011)
region4 = Vojvodina	−0.070	−0.013	−0.026	−0.003
	(0.055)	(0.065)	(0.021)	(0.016)
region4 = Zapadna Srbija	0.058	0.080	0.022	0.020
	(0.055)	(0.065)	(0.021)	(0.016)
region4 = Istocna Srbija	0.120**	0.089	0.045**	0.022
	(0.058)	(0.067)	(0.021)	(0.016)
Household pensions	−0.008***	−0.011***	−0.003***	−0.003***
	(0.001)	(0.003)	(0.000)	(0.001)
Household benefits (MSA + CA)	−0.030***	−0.024***	−0.011***	−0.006***
	(0.008)	(0.009)	(0.003)	(0.002)
Married	0.005	0.388***	0.002	0.098***
	(0.045)	(0.061)	(0.017)	(0.015)
Number of children (<2)	−0.342***	0.505***	−0.129***	0.126***
	(0.084)	(0.179)	(0.032)	(0.044)
Number of children (2–6)	0.065	0.131	0.024	0.033
	(0.057)	(0.096)	(0.021)	(0.024)
Constant	−5.041***	−4.839***		
	(0.176)	(0.178)		
Observations	6,856	6,750	6,856	6,750
chi2	1820	1479	1820	1479
p	0	0	0	0
r2_p	0.271	0.326	0.271	0.326

Source: Based on 2013 SILC data.
Note: MSA = monetary social assistance. CA = child allowance.
Robust standard errors in parentheses: ***p< .01 **p<.05 *p<.1

Table A10: Determinants of labor market participation (probit model marginal effects)

Variables	S1	S2	S3	S4
Woman	−0.019**	−0.002	−0.001	−0.001
	(0.009)	(0.009)	(0.009)	(0.009)
Work experience		0.030***	0.031***	0.031***
		(0.001)	(0.001)	(0.001)
Work experience squared		−0.000***	−0.001***	−0.000***
		(0.000)	(0.000)	(0.000)
educ3 = secondary		0.014	0.030**	0.029**
		(0.012)	(0.012)	(0.012)
educ3 = tertiary		0.110***	0.132***	0.129***
		(0.012)	(0.011)	(0.011)
Residence			−0.086***	−0.086***
			(0.010)	(0.010)
region4 = Vojvodina			−0.055***	−0.053***
			(0.015)	(0.015)
region4 = Zapadna Srbija			−0.013	−0.012
			(0.014)	(0.014)
region4 = Istocna Srbija			−0.049***	−0.050***
			(0.016)	(0.016)
Married				−0.002
				(0.011)
Number of children (<2)				0.143***
				(0.019)
Number of children (2–6)				0.049***
				(0.011)
Observations	9,201	9,201	9,201	9,201
chi2	4.165	1208	1269	1398
p	0.0413	0	0	0
r2_p	0.000481	0.170	0.182	0.192

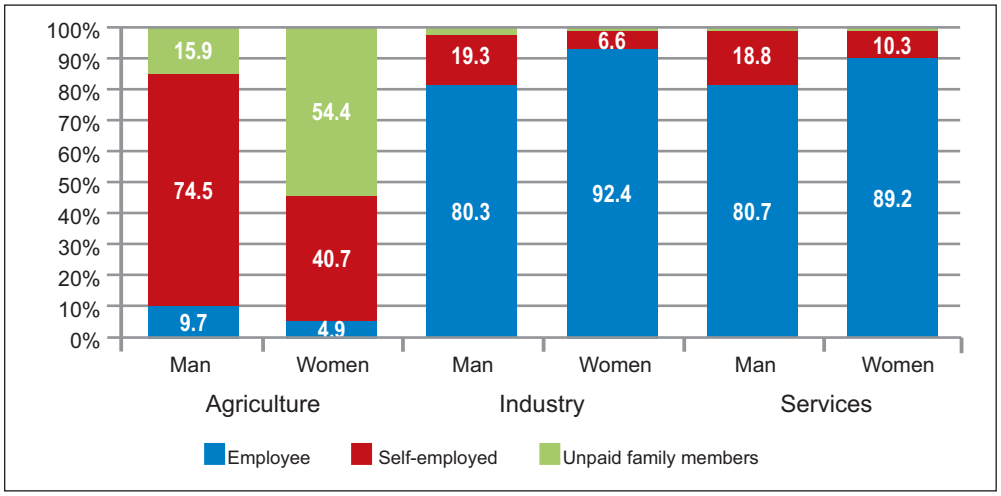
Source: Based on 2013 SILC data.
Robust standard errors in parentheses: ***p<.01 **p<.05 *p<.1

Table A11: Determinants of employment among women and men (probit model coefficients and marginal effects)

Variables	Coefficients		Marginal effects	
	women	men	women	men
Work experience	0.117***	0.112***	0.031***	0.029***
	(0.007)	(0.006)	(0.002)	(0.002)
Work experience squared	−0.002***	−0.002***	−0.000***	−0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
educ3 = secondary	0.072	0.174***	0.019	0.046***
	(0.071)	(0.061)	(0.019)	(0.016)
educ3 = tertiary	0.572***	0.619***	0.134***	0.131***
	(0.088)	(0.085)	(0.018)	(0.014)
Residence	−0.276***	−0.382***	−0.071***	−0.096***
	(0.057)	(0.052)	(0.014)	(0.013)
region4 = Vojvodina	−0.299***	−0.100	−0.085***	−0.026
	(0.079)	(0.071)	(0.023)	(0.019)
region4 = Zapadna Srbija	−0.086	−0.014	−0.023	−0.004
	(0.079)	(0.072)	(0.022)	(0.019)
region4 = Istocna Srbija	−0.291***	−0.095	−0.083***	−0.025
	(0.083)	(0.073)	(0.025)	(0.020)
Married	0.132**	−0.111*	0.036**	−0.028*
	(0.058)	(0.059)	(0.016)	(0.015)
Number of children (<2)	0.361***	0.720***	0.096***	0.186***
	(0.103)	(0.101)	(0.028)	(0.026)
Number of children (2–6)	0.105*	0.287***	0.028*	0.074***
	(0.058)	(0.061)	(0.015)	(0.016)
Constant	−0.188*	−0.151*		
	(0.099)	(0.089)		
Observations	4,108	5,093	4,108	5,093
chi2	707.3	719.5	707.3	719.5
p	0	0	0	0
r2_p	0.213	0.181	0.213	0.181

Source: Based on 2013 SILC data.
Robust standard errors in parentheses: ***p<.01 **p<.05 *p<.1

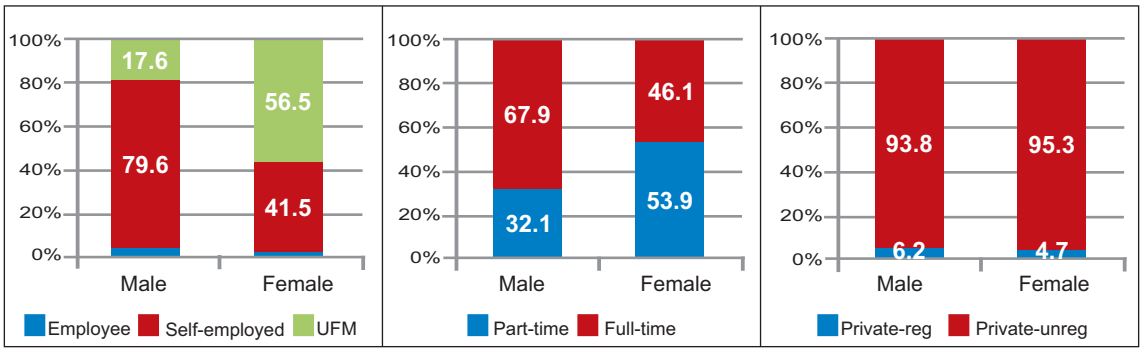
Figure A12: Professional status, by gender and activity sector, 2013 (15–64, %)



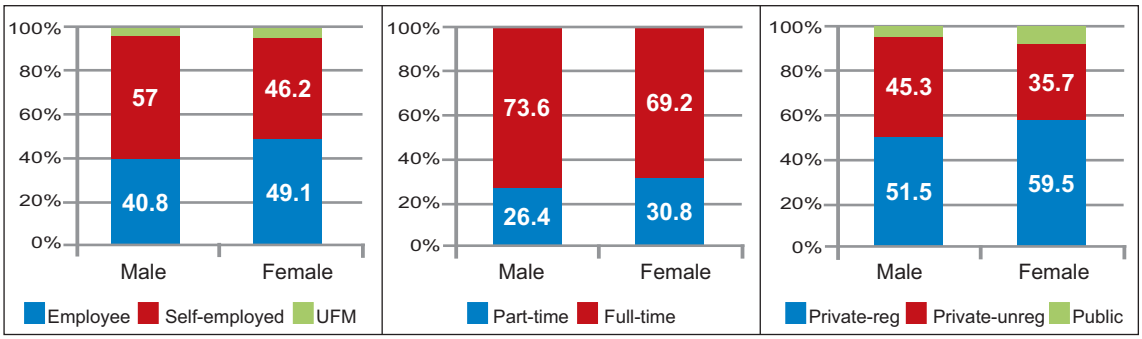
Source: Based on 2013 SILC data.

Figure A13: Professional status, working hours, and firm ownership type in the informal sector, by gender, 2013 (%)

Agriculture



Industry and services



Source: Based on 2013 SILC data.

Table A14: Gender wage gap

Variables	S0	S1	S2	S3	S4	S5
Woman	- 0.045***	- 0.108***	- 0.135***	- 0.138***	- 0.139***	- 0.138***
	(0.017)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Work experience		0.023***	0.020***	0.019***	0.014***	0.012***
		(0.003)	(0.002)	(0.002)	(0.002)	(0.003)
Work experience squared		- 0.000***	- 0.000***	- 0.000***	- 0.000***	- 0.000***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Secondary education		0.204***	0.111***	0.087***	0.073***	0.071***
		(0.021)	(0.023)	(0.023)	(0.023)	(0.023)
Tertiary education		0.754***	0.316***	0.281***	0.258***	0.257***
		(0.024)	(0.032)	(0.032)	(0.032)	(0.032)
Professionals			- 0.044	- 0.052	- 0.102**	- 0.102**
			(0.043)	(0.043)	(0.043)	(0.043)
Technicians and associate professionals			- 0.304***	- 0.299***	- 0.331***	- 0.325***
			(0.045)	(0.044)	(0.043)	(0.043)
Clerks			- 0.402***	- 0.408***	- 0.418***	- 0.409***
			(0.047)	(0.047)	(0.046)	(0.046)
Service and sales workers			- 0.656***	- 0.649***	- 0.596***	- 0.588***
			(0.047)	(0.047)	(0.046)	(0.046)
Craft and trade workers			- 0.585***	- 0.558***	- 0.551***	- 0.543***
			(0.048)	(0.048)	(0.048)	(0.048)
Plant and machine operators			- 0.533***	- 0.502***	- 0.501***	- 0.492***
			(0.050)	(0.050)	(0.049)	(0.049)
Basic occupations			- 0.673***	- 0.657***	- 0.685***	- 0.675***
			(0.049)	(0.049)	(0.048)	(0.048)
Urban				0.070***	0.073***	0.066***
				(0.014)	(0.014)	(0.014)
Vojvodina				- 0.104***	- 0.102***	- 0.103***
				(0.018)	(0.018)	(0.018)
Zapadna Srbija				- 0.126***	- 0.131***	- 0.129***
				(0.017)	(0.017)	(0.017)
Istocna Srbija				- 0.134***	- 0.162***	- 0.158***
				(0.019)	(0.019)	(0.019)
Service sector					- 0.084***	- 0.083***
					(0.017)	(0.017)
Informal employment					- 0.122***	- 0.119***
					(0.027)	(0.027)
Temporary contracts					- 0.060***	- 0.059***
					(0.019)	(0.019)
Public sector					0.163***	0.163***
					(0.016)	(0.016)
Household size						- 0.014***
						(0.005)
Number of children (<6)						0.037***
						(0.010)
Married						0.001
						(0.017)
Constant	5.174***	4.614***	5.272***	5.330***	5.424***	5.460***
	(0.012)	(0.027)	(0.055)	(0.057)	(0.059)	(0.062)
Observations	4,374	4,374	4,355	4,355	4,278	4,278
R-squared	0.002	0.305	0.406	0.423	0.458	0.461
F	6.990	314.0	221.9	174.2	164.5	144.6
P	0.00823	0	0	0	0	0
r2_a	0.00161	0.304	0.404	0.421	0.456	0.458

Robust standard errors in parentheses: ***p<.01 **p<.05 *p<.1

Table A15: Men and women in various occupations, 2013 (15–64, %)

Occupation	Men	Women	N
Senior officials and managers	62.0	38,0	314
Professionals	42.7	57.3	887
Technicians and associate professionals	45.6	54.4	824
Clerks	42.5	57.5	421
Service and sales workers	45.4	54.6	1,081
Skilled agricultural	53.5	46.5	1,524
Craft and trade workers	82.9	17.1	932
Plant and machine operators	89.8	10.2	517
Basic occupations	48.9	51.1	584
Armed forces	96.8	3.2	45
Total	55.8	44.2	7,129

Source: Based on 2013 SILC data.

Appendix 2: Differences among indicators based on SILC and LFS data

Because the Serbian SILC data include the complete set of questions for assessing employment according to the definition of the International Labour Organization, the SILC and LFS employment rates should be comparable. However, SILC data overestimate employment by approximately 200,000 employed, or 4.7 percentamong men and 6.4 percentamong women. Detailed data of the LFS are not available by gender. We therefore present the analysis of the differences between SILC and LFS data on the total population.

The data in Table 1 suggest that, although the employment rate is higher by 5.5 percent according to SILC data than according to LFS data, the shares of permanent wage employment in the total working-age population in the two datasets are approximately equal (29.0 percent in SILC and 28.4 percent in LFS). The overestimation of employment in the SILC data therefore derives mainly from higher overestimates of the individuals engaged in more vulnerable types of jobs such as the self-employed and unpaid family members. (The two shares in the total population are higher in the SILC data than in the LFS by 2.2 percent and 2.4 percent, respectively.) Meanwhile, the share of individuals with fixed-term contracts is 1.4 percent higher in the SILC data.

Figure 1: Main labor market outcomes, SILC and LFS data

	SILC	LFS	Difference	SILC	LFS	Diff.
	Number			% of total population		
Labor market status						
Employed	2,590,923	2,198,200		53.0	47.5	−5.5
Unemployed	741,760	655,045	−86,715	15.2	14.1	−1.0
Inactive	1,555,356	1,777,237	221,882	31.8	38.4	6.6
Total population (15–64)	*4,888,038*	*4,630,482*				
Professional status						
Wage-employed	1,751,483	1,555,654	−195,829	35.8	33.6	−2.2
Self-employed	639,977	496,511	−143,466	13.1	10.7	−2.4
Unpaid family members	199,464	146,034	−53,430	4.1	3.2	−0.9
Total employed	*2,590,923*	*2,198,200*	*−392,723*	*53.0*	*47.5*	*−5.5*
Contract type						
Permanent	1,415,616	1,314,528	−101,088	29.0	28.4	−0.6
Fixed-term	270,422	192,901	−77,521	5.5	4.2	−1.4
Temporary	64,574	48,225	−16,348	1.3	1.0	−0.3
Total wage-employed	*1,751,483*	*1,555,654*	*−195,829*	*35.8*	*33.6*	*−2.2*

Source: Based on 2013 SILC data and SORS LFS communications.

The reasons behind these differences are the variations in the methodologies used in the SILC and the LFS. The 2013 LFS indicators were calculated as the weighted averages of the data collected in April and October 2013, while the SILC

data were collected in May and June 2013, a period when there were more seasonal workers.

Variations in the training of the interviewers may have resulted in two types of errors in the collection process. First, the LFS interviewers may have been less sensitive to less permanent types of employment, such as selling goods at markets. Second, because of the more sensitive dataset, the SILC interviewers underwent more detailed training and may have been oversensitive to marginal typesof employment than the LFS interviewers. The SILC interviewers may thus have listed as employment housework such as cleaning the homes of farm families, which is not in line with the definition of employment according to the International Labour Organization.

In this report, the differences between the LFS and SILC data are compared by using a subjective measure of labor market status in 2012. The differences in the shares of self-assessed employment stood at 6.5 percent that year.