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Breaking the Cycle of Roma Exclusion in the Western Balkans

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Acronyms and Abbreviations

ALMP	active labor market program
ATM	automated teller machine
CCT	conditional cash transfer
DG NEAR	Directorate-General for Neighbourhood and Enlargement Negotiations (European Commission)
EC	European Commission
ECAPOV	World Bank harmonized international comparable data for Europe and Central Asia
EU	European Union
EU28	the current full membership of the European Union: Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom
EU-SILC	European Union Statistics on Income and Living Conditions
GDP	gross domestic product
HBS	household budget survey
IDP	internally displaced person
IPA	instrument for preaccession assistance
ISCED	International Standard Classification of Education
NEET	not in employment, education, or training
NGO	nongovernmental organization
PES	public employment service
RRS	Regional Roma Survey
UNDP	United Nations Development Programme

Executive Summary

The Roma[1] are the largest ethnic minority in Europe, as well as one of the most deprived and socially excluded groups; they typically have only limited access to basic services and economic opportunities. Although there are no reliable data on the Roma population in the Western Balkans, available estimates suggest that the share of national populations represented by Roma ranges between 1.7 percent in Bosnia and Herzegovina and 9.6 percent in North Macedonia. Roma have only limited access to education, economic opportunities, health care, housing and essential services, and documentation even relative to their non-Roma neighbors who live in close physical proximity.

Yet, Roma inclusion is not only a moral imperative; demographic aging in Europe means that it is also smart economics. The benefits of Roma inclusion are not negligible and include the productivity gains associated with higher employment rates and labor earnings, and they include fiscal benefits through greater tax revenue and lower social assistance spending. This is particularly important in aging societies because absorbing Roma entrants into the labor force can help counteract shrinking working-age populations. Roma are a young population, and this youth bulge can be turned into a demographic dividend through proper investment in education and basic services. Without the additional investments, governments will miss a demographic window of opportunity.

Because of the lack of high-quality data, research on Roma inclusion to inform evidence-based policies is scarce, and accurate data on programs implemented in the Western Balkans are needed. Ethnicity is generally not a topic in nationally representative household surveys, and administrative data are not ordinarily disaggregated by ethnicity. Roma sometimes do not like to self-identify as Roma. As a result, there is generally undercounting in censuses and undersampling in household surveys.

This report aims to fill this knowledge gap and inform policy making by relying on data from the 2011 and 2017 rounds of the Regional Roma Survey (RRS), the most comprehensive survey to date on living conditions and human development outcomes among marginalized Roma households in the Western Balkans, as well as non-Roma households in the vicinity of Roma. The 2011 round of the RRS, implemented in 12 countries of Central and Eastern Europe, including five countries in the Western Balkans, is a multitopic household survey representative of communities in which the share of Roma is larger than the share of Roma in the national populations.[2] It encompasses both Roma population and neighboring non-Roma. After the first wave of the RRS was implemented in 2011, the European Commission (EC) Directorate-General for Neighbourhood and Enlargement Negotiations (DG NEAR), in an effort to explore changes in core development outcomes among marginalized Roma and non-Roma who lived nearby, commissioned the United Nations Development Programme (UNDP) and the World Bank to carry out another round of the RRS in the countries of the Western Balkans in 2017. In both waves of the RRS, the sampling framework included communities in which the share of the Roma population was larger than the share of Roma in the national population, referred to as marginalized Roma. In the 2011 wave, the sample was limited to Roma who live in areas in which the concentration of Roma is greater than 40 percent; in the 2017 wave, areas with a

1 Roma is used to refer to a number of groups (for example, Roma, Sinti, Kale, Gypsies, Romanichels, Boyash, Ashkali, Egyptians, Yenish, Dom, Lom, Rom, Abdal) including travelers, without denying the specificities of these groups. These groups are all considered under the wider Roma umbrella in the European Union (EU) Framework for National Roma Integration Strategies (European Commission 2011).

2 The five Western Balkan countries were Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, and Serbia.

concentration of Roma ranging between 10 percent and 40 percent were also included. In both waves, non-Roma who were living in physical proximity to the sampled Roma were also interviewed; referred to as "non-Roma", they are not representative of the national population in each country.[3] Not included in the first round, Kosovo was added to the survey at this time. Parallel qualitative research conducted by the World Bank, in collaboration with the Institute of Ethnography in Serbia, also helps in understanding the underlying mechanisms behind gaps between Roma and non-Roma in education and labor markets, with special attention to gender.[4]

The results show that marginalized Roma in the Western Balkans do not have the endowments and assets they need nor the ability to use the assets they have efficiently and intensively to generate economic gains and climb the socioeconomic ladder. Roma face multiple barriers and constraints that hinder their ability to accumulate human capital, participate in the labor market on an equal basis, and generate economic gains. The insufficient stock and accumulation of human, physical, financial, and social capital have hindered the ability of Roma households to generate income over the life cycle. Marginalized Roma are not well endowed; the returns to education among them are low; and their ability to accumulate assets is constrained. Weak labor market engagement is also a persistent phenomenon among them and has not improved; so, their ability to generate labor income is narrow. A comparison of the 2011 and 2017 RRS data shows that little progress toward Roma inclusion was achieved in the years between the two survey rounds in the five priority areas identified by DG NEAR: education, labor markets, health, housing and essential services, and documentation.

This report relies on the 2011 and 2017 rounds of the RRS and qualitative work among Roma to identify the key barriers and constraints faced by Roma in the five priority areas of Roma inclusion. The findings are summarized below, along with relevant policy recommendations.

The Five Priority Areas

Education

Several dimensions of education are analyzed across the life cycle, including enrollments in preprimary and compulsory education and completion rates in compulsory, upper-secondary, and tertiary education.

Across the region, the coverage of education among Roma is narrow, and ethnic gaps are wide. Though there was some improvement in 2011–17, gaps between Roma and their non-Roma neighbors remain substantial, especially in upper-secondary and tertiary education.

Inequalities between Roma and non-Roma become apparent early in life. The financial costs are cited as the most important barrier limiting preprimary enrollment among Roma children in the Western Balkans. So, removing preschool fees and providing other financial incentives may encourage enrollment among younger Roma children. Although all governments include measures to raise

3 Members of approximately 750 Roma and 350 neighboring non-Roma households were interviewed in each country in each survey year.
4 The qualitative study was funded by the Umbrella Foundation for Gender Equality. See Appendix A for details on the methodology and design of the quantitative survey and the qualitative research.

preprimary enrollment in their National Action Plans for Roma Inclusion, access to preprimary education among Roma is low, and there was little change between 2011 and 2017. In 2017, preprimary enrollment among marginalized Roma ages 3–5 ranged from only 3 percent in Bosnia and Herzegovina to 33 percent in Albania. Less early childhood stimulation at home and restricted exposure to the majority language also mean Roma children are less prepared when they enter primary school. A large majority of caregivers say they do not send their children to school because they cannot afford to. This is consistent with recent supply and demand assessments in the Western Balkans that reveal the lack of affordable services as an important constraint on school enrolment. The provision of childcare subsidies or other financial incentives to low-income households can help alleviate the affordability issue. Recent evidence from a randomized control trial implemented across 236 poor settlements in Bulgaria shows that removing kindergarten costs was the most cost-effective strategy to boost kindergarten participation.

Compulsory education is not the great equalizer; there are still significant gaps in enrollments in compulsory schools, mostly driven by discrimination and restrictive social norms. In 2017, the gaps between Roma and their non-Roma neighbors in compulsory education enrollment ranged from 10 percentage points (North Macedonia) to 29 and 31 percentage points (Montenegro and Albania, respectively), even though enrollments among Roma children expanded in all countries. In Albania and Montenegro, at least a third of Roma children ages 7–15 were outside the school systems in 2017. In most countries, a large share of the gaps between Roma and their non-Roma neighbors cannot be explained by differences in observed characteristics, such as demographics and other household characteristics, suggesting that discrimination and social norms play an important role.

Among Roma, family background is associated with the level of enrollment in compulsory education. The association among family background, enrollment, and academic achievement is an essential driver of inequality of opportunity. Even after controlling for income, one finds that parental background—mainly the educational attainment of the mother—is associated with higher enrollment among students of compulsory school age. More well educated mothers may be providing more inputs into their children's education, and they may also face lower liquidity constraints, even after one controls for household income. This means that raising the educational attainment of mothers, improving parenting skills, and relaxing liquidity constraints among less well educated parents should also lead to higher compulsory school enrollment rates.

Completion rates in compulsory education among Roma ages 18–21 are generally low, and the gender gaps are large. Completion rates in compulsory education range from 34 percent and 70 percent in Montenegro and North Macedonia, respectively, whereas, among non-Roma neighbors, completion rates are above 90 percent in all countries. In Bosnia and Herzegovina, Kosovo, and North Macedonia, young Roma women ages 18–21 are significantly less likely than young Roma men to complete compulsory education.

Among older cohorts, gaps in upper-secondary and tertiary education completion rates relative to neighboring non-Roma are even wider; tertiary completion is almost nonexistent among Roma. In upper-secondary education, completion among Roma ages 22–25 shows a wide range across countries, from only 3 percent in Montenegro to 32 percent in North Macedonia. Progress between 2011 and 2017 was observed only in some countries. In tertiary education, there was little change between 2011 and 2017; completion was still out of reach.

The financial costs are a main barrier to enrollment in compulsory school and higher levels of education, but child marriage is also an important barrier among Roma females. Across countries, around one-half of individuals ages 6–24 who are not in school and who have, at most, completed compulsory education (International Standard Classification of Education [ISCED] 2) report that they are not attending school because of economic factors, namely, the cost of education or related expenses such as transport and books. Among girls and women ages 6–24 who have not finished compulsory education and are not in school, between 11 percent (Bosnia and Herzegovina) and around one-third (North Macedonia and Serbia) report that they are out of school because they have married. Among women ages 20-49, there is a negative correlation between marriage as a child and lower educational attainment.

Travel distance to a school is not a particular barrier. According to the 2017 round of the RRS, more than 90 percent of the members of Roma households who are in kindergarten or primary school require less than 15 minutes to reach the nearest school.

Lower educational aspirations among Roma seem consistent with the lower returns to education, but also the difficult path to success and the lack of role models. In all countries, the great majority of non-Roma respondents—generally, well above 70 percent—said that tertiary education is sufficient for a child. Among Roma, this was the case among fewer than 50 percent of respondents in Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, and Serbia. Likewise, in all countries except North Macedonia, a significant share of Roma respondents said that ISCED 1 and 2, that is, up to lower-secondary education, represent sufficient education for a child. This view was rather more rare among non-Roma.

However, these differences in aspirations are not sufficiently large to explain the observed ethnic gaps in educational attainment. For example, the share of Roma respondents who said that tertiary education is sufficient, though lower than the corresponding share among their non-Roma neighbors, was still substantial, ranging between slightly more than one-quarter in Serbia to around 60 percent in Kosovo. Yet, the tertiary education completion rates among Roma are almost null.

The lack of trust in education providers affects the use of education services. This issue can potentially be addressed by relying on Roma mediators, but implementation challenges must be carefully considered. (The mediator is a valued Roma community member who connects members of the Roma community with service providers.)

Across countries, most Roma students report that they attend integrated schools, although a large share still attend majority Roma schools, possibly signaling lower-quality education in the latter. Efforts to integrate schools should reflect a consideration of the implementation challenges, such as a lack of safety or a need to travel longer distances to attend an integrated school, which may be a deterrent, especially among Roma girls. A large share of Roma children ages 7–15 in the region still attend schools with a high concentration of Roma students. Among marginalized Roma students across countries in 2017, between 10 percent (in Serbia) and 40 percent (in North Macedonia) reported that they attended majority Roma schools. In contrast, their non-Roma counterparts were less likely to attend such schools. North Macedonia stands out, with a 28 percentage point gap, that is, only 12 percent of non-Roma attend majority Roma schools. Efforts to integrate schools should be combined

with active antidiscrimination measures because better outcomes in integrated schools may not be forthcoming if discrimination is pervasive.

Evidence of the RRS suggests that, unlike in other countries such as the Czech Republic and the Slovak Republic, Roma children are not disproportionately represented in special schools or schools for disabled children in the Western Balkans. According to the 2017 round of the RRS, only around 1 percent of marginalized Roma ages 7–15 across the region were attending special schools, while the share of non-Roma children attending special schools was similar, showing no inequality by ethnicity. The shares were also low in 2011. However, these results may reflect substantial underreporting.

Though there is a lack of data on school quality and learning outcomes, education quality among students from disadvantaged backgrounds is a problem in the region, suggesting that Roma may be especially affected. Students from disadvantaged backgrounds tend to exhibit worse performance. The Western Balkan countries have a much smaller share of resilient students than other countries in Europe. In Kosovo, only 2.5 percent of students from disadvantaged backgrounds perform among the top quarter of students on the tests of the Program for International Student Assessment.

Labor markets

Low labor force participation and a high incidence of unemployment mean that the employment prospects of working-age Roma are poor. Roma, especially Roma females, are much less likely to participate in the labor market than their non-Roma counterparts, and they are also less likely to participate than the majority population. Unemployment is especially high among Roma. Over 50 percent of economically active working-age Roma are unemployed in Albania and in Bosnia and Herzegovina. Employment among Roma ranges from only 13 percent in Kosovo to 22 percent in North Macedonia. These are much lower than the rates among non-Roma neighbors and national averages, which are already much lower than the average employment rate in the 28 members of the European Union (EU28) of 67.6 percent.[5] The data show clearly that attention should be paid to the labor market integration of Roma.

On the supply side, social assistance and interhousehold transfers do to not seem to have created work disincentives among marginalized Roma in the Western Balkans. Because of the lack of data, there is no evidence on the disincentive effects of remittances on economic activity among Roma. The data of the 2017 round of the RRS show no significant differences in labor force participation between Roma living in households receiving child social benefits and social allowances relative to nonrecipients. Inactivity rates among individuals living in Roma households receiving financial assistance or alimony from other households in the country or abroad are lower among Roma households receiving transfers, except in Bosnia and Herzegovina. In some countries, substantial reliance on remittance income may have contributed to low labor force participation rates and high unemployment because of the possible impact on reservation wages, that is, the lowest wage at which an individual would be willing to accept a particular type of job. However, this cannot be tested using the available RRS data.

5 The EU28 is the current membership of the EU.

The gender gap in labor force participation among Roma is large. The gender gaps in labor force participation among Roma range from 23 percentage points in Albania to 33 percentage points in Kosovo. In all countries, the presence of children in the household and family responsibilities are the main reasons behind female inactivity, while, among males, inactivity mostly arises because of insufficient labor demand. A significant share of the gender gap remains unexplained after controlling for individual and household characteristics, point to the important role of unobserved factors, which may include social and community norms as well as discrimination.

Several overlapping constraints limit employability among Roma, including lack of skills and experience, time, access to services (childcare and eldercare), limited flexible work arrangements, and adverse attitudes and social norms. Constraints to employability constitute the first and most important set of barriers faced by Roma. In addition to low educational attainment, there is limited access to vocational skills, given the lack of on-the-job training among Roma, limited entrepreneurship and social enterprise development programs, and lack of access to microfinance schemes. Lack of access to labor market information and networks, and other information constraints may affect the matching of Roma job-seekers with job vacancies, especially among those living in Roma settlements. Restrictive labor legislation, limited flexible work arrangements, and high labor taxes among low-wage and part-time workers affect the employability of Roma. Roma females face adverse attitudes in the labor market, despite the fact that they share similar employment aspirations with their male counterparts. The availability and use of institutional childcare centers are generally low in the Western Balkans, and expanding good-quality, affordable childcare may boost female labor force participation. Social and community norms are also an important constraint, as they relegate women to household and caretaking activities and also curtail female educational attainment through child marriage.

Narrowing the human capital gap between Roma and non-Roma may not be sufficient to provide fair chances on the labor market because different returns to human capital signal unequal treatment. Average returns to schooling among Roma vary between 0 percent and 3.4 percent, well below the returns associated with their neighboring non-Roma counterparts as well as the average in Europe. Governments need to continue investing in education among Roma, but getting Roma into education must also be a good investment option. So, sensible policies tackling discrimination and affecting the returns to schooling are fundamental, for instance, addressing education quality and financial constraints. The timing of the policies is also important. The returns to schooling tend to emerge slowly, which means that, if policies are undertaken now to increase significantly the returns to schooling among Roma, it may take many years for Roma to catch up with their non-Roma neighbors. In the short run, returns to schooling tend to change little, and by no more than 2 percentage points in each decade.

The highest returns to schooling among Roma are in tertiary education; expanding tertiary education is therefore important to improving labor market outcomes among Roma. However, this should not come at the expense of primary and secondary education because primary education is a fundamental service, and access to primary and secondary education is a prerequisite for entry into tertiary.

In addition to tackling supply-side barriers to employability, labor demand constraints must also be addressed. If barriers from the worker side alone are lifted, for example, through higher educational attainment, training, and other initiatives, but demand-side constraints are not confronted, outcomes may not improve as expected. Relevant measures might involve the private sector dealing with

discrimination and stereotyping, thereby supporting the hiring of Roma by companies. It might include broader affirmative action policies, wage and employment subsidies, carrot and stick measures, and so on. Information campaigns among employers would also be useful. Apart from the legal requirements, employers may possess insufficient information about the practical benefits of employing a diverse workforce.

The labor market is the priority area that lags the most, mainly because of substantial deterioration in labor force participation and employment among Roma across all countries, except North Macedonia, and a lack of progress in narrowing the gaps relative to non-Roma neighbors. Bosnia and Herzegovina, Kosovo, and Montenegro exhibit especially dismal employment outcomes among Roma. This highlights the need for a larger agenda in the creation of more and better jobs throughout the Western Balkans, but it also calls for a focus on the needs of Roma, women, and vulnerable groups and on the labor market barriers these groups face, including the barriers caused by discrimination and social and community norms. This would mean (1) identifying policies and interventions that would generate jobs for disadvantaged Roma and other vulnerable groups, (2) supporting and evaluating targeted labor market interventions in favor of Roma to prioritize and implement interventions that work, and (3) identifying and scaling interventions directed at Roma women, who are much less likely than their non-Roma neighbors to participate in the labor market or to be employed.

Health

This section analyzes several dimensions of health and health care, including self-perceived health status, the unmet need for health care, health insurance coverage, and the use of preventive health care services. In most countries, there was little change in coverage or access to health services between 2011 and 2017, and there was also little change in inequality.

Self-perceived health is poorer among marginalized Roma than among neighboring non-Roma, possibly indicating lower objective health outcomes among Roma. The RRS does not include objective health outcomes, but RRS data do show that, although the Roma population is younger than neighboring non-Roma in all countries, Roma still perceive lower average health status than their non-Roma counterparts.

In all countries, the prevalence of the self-reported unmet need for medical care is substantial, and affordability and lack of health insurance are the single most important self-reported barriers contributing to health inequalities. In countries on which national data are available, unmet health needs range from only 3 percent of total health needs in North Macedonia to 9 percent in Montenegro. Among Roma, the share of unmet needs is generally larger, ranging from 16 percent in North Macedonia to 36 percent in Albania. Across countries, the majority of Roma report high costs or the lack of health insurance as the reasons behind their unmet need for medical care, and they are more likely than their non-Roma neighbors to report these reasons. The availability of health care centers does not seem to be a major barrier to access to health care services. Across countries, the vast majority of Roma report that there is a health care center in their vicinity.

In line with the most common reason cited for unmet needs for medical care, Roma are less likely to have health insurance and much more likely to report that they cannot afford the medicine needed by household members. Lack of information, differences in beliefs and attitudes about health care, and discrimination are also major factors, and observable socioeconomic characteristics also account for some of the gaps in health insurance coverage. The size of the health insurance coverage gap is larger in Albania, Bosnia and Herzegovina, and Montenegro. Health insurance coverage is particularly low in Kosovo, mostly because there is no mandatory health insurance. In all countries, though differences in individual and household characteristics help explain part of the gap in health insurance coverage, a significant part remains unexplained. In Montenegro, the lack of access to identity cards greatly affects the chances of obtaining health insurance.

The use of preventive health services among marginalized Roma is limited, and cost is always the leading factor behind gaps in the reliance on preventive health care services. Across countries, only 50 percent of Roma ages 16 and above report that they have used preventive health care services in the previous 12 months. This contrasts with a higher rate of use among neighboring non-Roma, which ranges from 63 percent in Kosovo to 71 percent in North Macedonia and Serbia. Having health insurance increases the likelihood of using preventive care services in all countries except Kosovo.

Housing and Access to Essential Services

Many Roma live in slums or informal settlements and experience severe overcrowding; ethnic gaps persist in access to essential services, although there has been progress in some countries. The expansion of access to services, such as electricity, piped water inside the dwelling, connections to public sewerage or waste water tanks, and waste collection, has been inclusive in Bosnia and Herzegovina and Serbia, but there are still large gaps, and some areas remain underserved. The lack of secure land titling in informal settlements contributes to shortages in housing and services among many marginalized Roma.

Access to other productive assets, such as financial capital, is limited, as reflected by the low use of financial services; insecure property rights also restrict the productive use of land endowments. In all six countries, relative to their non-Roma neighbors, a substantially larger share of Roma household heads report they never use banks, automated teller machines (ATMs), or post offices. This is consistent with the general shortage in financial access in the Western Balkans. Insecure property rights limit the productive use of land endowments and limit the ability of Roma households to generate income. Substandard housing and insufficient access to services may be affecting human capital accumulation.

Documentation

The survey rounds show a high coverage of birth certificates and identity cards, but qualitative evidence indicates Roma often lack adequate documents—such as proof of residency—to gain access to social services. The coverage of identity cards is relatively narrow in Montenegro, where it may be affecting the ability of Roma to access social services and benefits. Lack of documentation, such as school certificates from abroad is also a problem among Roma returnees from the EU, leading to

delays in the enrollment of children in the formal education system or of students in classes that do not reflect their prior schooling in the EU.

Trends in Access to Services and Economic Opportunities and Inequality

Overall, education and housing emerge as more well performing priority areas; average coverage rose in most countries between 2011 and 2017, though the evidence on progress in inequality is inconclusive.[6] Nonetheless, across priority areas, education and labor markets exhibit the poorest indicators and the widest gaps. The changes in coverage and inequality in health were small, and the evidence on improvement or worsening is inconclusive, whereas access to economic opportunities through labor markets worsened in most countries, while the evidence on inequality in labor markets is generally inconclusive. The evidence on documentation is generally inconclusive or mixed, though the coverage among Roma is generally extensive.

Policy Agenda

That Roma should become healthy, productive members of society who are well integrated into the labor market is the ultimate objective. This implies an integrated, life-cycle approach that helps surmount the barriers many Roma have faced since early childhood. Given the factors that constrain Roma inclusion in the Western Balkans, policies and interventions that may generate improved outcomes among marginalized Roma are identified in this report. The first is the data agenda because accurate data on the programs implemented in the Western Balkans are scarce, and adequate policy monitoring and evaluation is not possible without proper data. Policy recommendations in the five priority areas and two cross-cutting themes, gender and discrimination, are then examined. The need for an integrated approach to breaking the cycle of Roma exclusion is subsequently described.

Evidence-based policy making is fundamental if policy makers and practitioners are to enhance their policy decisions and the management of programs aimed at Roma inclusion; evidence-based evaluation is a key tool in the improvement of programs. Applying data, evidence, and evaluation to decision making involves the following. (1) Rigorous evidence should be built up on what works, including costs and benefits. Rigorous evaluation may encompass randomized control trials and quasi-experimental studies to measure program impacts as well as an analysis of the policy costs per outcome to enhance the allocation of public resources. The absence of rigorous evaluation does not necessarily mean that programs are ineffective, but it does mean one is uncertain about true program impacts. (2) Program delivery should be monitored, and impact evaluation should be used to measure program effectiveness. This is key to basic accountability to ensure that programs are operating as intended and to identify opportunities for improvement. If the collection of proper survey data is costly or impractical, administrative data can also be exploited to evaluate program outcomes. (3) Use rigorous evidence to improve programs, scale up what works, and redirect funds from consistently ineffective programs. (4) Encourage innovation and test new approaches.

6 The evidence is considered inconclusive if the changes are not sufficiently large to establish a statistically significant difference between the two survey years.

Current policy monitoring and evaluation are inadequate because of the lack of official ethnic-disaggregated data. To target policies at marginalized Roma communities more effectively and evaluate the impacts, governments in the Western Balkans need to improve the quality of official data to measure ethnic disparities reliably. The lack of the topic of ethnicity in official survey and administrative data hinders the ability to monitor Roma inclusion outcomes effectively. Many national action plans do not provide for concrete, measurable performance indicators, milestones, or data sources, nor do they identify the authorities responsible for monitoring and evaluation.

With the goal of more effective monitoring and evaluation and the efficient implementation of antidiscrimination law, the EC has advocated for the collection of household data that are disaggregated by self-identified ethnic origin. However, this poses significant challenges. First, many Roma are reluctant to self-report their ethnicity. To address this problem, survey questionnaires should rely on dual ethnicity reporting, that is, allow respondents to identify with more than one ethnicity, while including questions on mother tongue. Grassroots campaigns, such as those undertaken in Montenegro and Serbia to encourage ethnicity self-reporting among Roma, can be beneficial by tending to reduce underreporting. Additional challenges include political and legal obstacles and the existence of attitudes toward the privacy implications of collecting ethnic-disaggregated data in household surveys.

A pragmatic approach toward the short-term enhancement of official data might focus on improving administrative data, which is based on the voluntary provision of information, the privacy of which is protected. Such data may also represent a useful tool in monitoring and evaluation. Examples of administrative data that could cover ethnicity include social security, education, health, and public employment service data.

Several other strategies might be considered to improve the reliability of ethnic data in the medium and long term. Data on ethnicity might be gathered across several data systems, oversampled, collected through targeted periodic surveys, or linked across multiple data sources using indirect methods.

A comprehensive vulnerability diagnostic is critical to the identification of regional sources of vulnerability and the policy options available to address them. To support evidence-based policy making, the development of a geographic information system based on the merging of administrative data, census data, and poverty maps might provide a more accurate disaggregated picture of the sources of vulnerability among Roma. A potential second step would consist of working with selected Western Balkan governments to generate a geographic information system in which information would be automatically updated. Such a proposal could be realized in the context of supporting the development of social registries—a database of potential program beneficiaries of multiple social assistance programs—in the Western Balkans.

Poverty maps offer insights into the potential targeting performance of geographic interventions aimed at Roma. The results of the research conducted for this report indicates that geographically targeted projects will reach most Roma in Serbia, but not in Albania. Combining the poverty maps of Albania and Serbia with census information on the distribution of Roma in each country showed that, in Serbia, Roma are concentrated in municipalities with high poverty rates. Targeting resources on areas in Serbia with high poverty rates might therefore also benefit Roma. In Albania, Roma are not concentrated in the poorest areas, which suggests that targeting the poorest municipalities would not

necessarily reach Roma; thus, additional targeting methods must be carefully designed, piloted, and implemented in Albania.

While poverty maps help identify the distribution of poverty across small subnational areas, they cannot be used at this time to identify pockets of marginalized Roma within discrete rural areas or towns and cities. If geographical targeting is used, there may be Roma communities within municipalities in which poverty rates are low that are missed (error of exclusion). Reaching such communities will require a different approach.

An ethnic-informed policy agenda that guides practitioners, development partners, and policy makers seeking to advance Roma inclusion must support and evaluate interventions aimed at Roma, including Roma women, to scale up what works. Policy makers should focus on selected communities to design, pilot, and evaluate interventions based on international best practice that have the potential to be scaled up nationally and regionally. Based on a diagnostic of the critical constraints that Roma face as well as a review of successful interventions designed to tackle these constraints, the research conducted for this report has identified several policy measures to narrow ethnic gaps in each priority area.

Policy Measures in Education

The agenda on education and skills is perhaps the most important game changer among Roma in the long term. Early childhood development interventions can become the basis for cognitive development and long-term health and productivity. Improving quality, equity, and access in compulsory education is also important, as well as the implementation of targeted programs to increase Roma enrollment and learning in upper-secondary education, such as the conditional cash transfer (CCT) program in North Macedonia.

Eight policy measures have been identified that can help narrow ethnic disparities in education in the Western Balkans. These include the following: (1) promote early inclusion of Roma children through affordable, high-quality preprimary education, (2) provide additional educational support for Roma children and introduce collaborative teaching techniques for diverse classrooms, (3) provide financial incentives to promote enrollment; (4) provide mentoring support and role models for students in transition to higher education, (5) change in mindsets and socioemotional skills to improve academic performance, (6) promote the use of Roma mediators at all levels of education, (7) ensure that schools attended by Roma and other vulnerable children receive adequate funding; and (8) address segregation and promote nondiscriminatory practices in schools.

Policy Measures Aimed at Labor Markets

Four main policy measures can help improve employment outcomes among the working-age Roma population. These are the following: (1) improve the skills and work experience of Roma job-seekers by introducing vocational educational opportunities in growth sectors, along with remedial and second-chance education or apprenticeship schemes; (2) adapt active labor market programs (ALMPs) and public employment services (PESs) to offer more efficient services to Roma by focusing on interventions

that help Roma workers access various labor markets, overcoming sectoral and spatial mismatches, and increasing the outreach of PESs toward Roma and the financial incentives for the hiring of Roma; (3) address discrimination and stereotyping against Roma on the job market by implementing broader affirmative action programs in employment, conducting information campaigns to increase employer awareness, providing information on working with vulnerable groups, and encouraging public institutions to become role models for nondiscriminatory practices; and (4) apply innovative schemes to tackle labor demand constraints and foster entrepreneurship, which may include entrepreneurship and social enterprise development programs and programs to foster access to microfinance schemes.

Policy Measures in Health

In health, three main policy measures can help improve health outcomes among the Roma population. These include the following: (1) continue to promote health knowledge and awareness through Roma health mediators; (2) support universal health coverage and endorse the financial coverage of medical bills among the poor and vulnerable to incentivize the use of formal health services, with an emphasis on preventive care; and (3) provide discrimination awareness training to medical providers to reduce and prevent discriminatory practices.

Policy Measures in Housing and Access to Essential Services

In housing and access to basic services, three main policy measures can help improve access to decent housing among Roma. These measures require a broadening of the range of tools available to the government, including projects and programs, and thus the implementation of a new model that goes beyond the provision of social housing and housing allowances. Such measures would include the following: (1) improve housing conditions among the least well off Roma living in slum areas; (2) help poor families move into better housing through holistic and participatory approaches; and (3) legally certify construction and occupancy; a good recent example is the law on the treatment of illegal construction in North Macedonia.

Policy Measures on Documentation

Two main policy measures can help improve the access to documentation among the Roma population. These are the following: (1) reduce the burden and the costs associated with civil registration, paying particular attention to internally displaced persons (IDPs) and returning Roma, among whom the share of individuals lacking proper documentation is larger; (2) raise awareness about the benefits of civil registration through information campaigns in both majority languages and the Romani language; this is especially critical in Montenegro because of the high incidence of IDPs and the relatively narrow coverage of identify cards.

Policy Measures on Gender as a Cross-Cutting Theme

Because Roma females face overlapping barriers and disadvantages, policy measures should focus on narrowing gender gaps among the Roma population. These measures would include the following: (1) provide additional financial incentives in favor of the school attendance of girls, such as CCTs that are more generous in the case of girls than boys; (2) focus on ALMPs for Roma women, for instance, by offering training and private sector employment programs that are attractive to them and do not lock them into nongrowth sectors; (3) reduce gender-biased social norms by focusing on self-help groups and targeted information and normative messaging campaigns aimed at influencing the decision process among Roma girls on continuing in education, delaying marriage, and entering the labor market; (4) overcome the constraints related to young women's care responsibilities, including the provision of affordable, higher-quality childcare services and CCTs conditional on school attendance to delay marriage and childbearing; (5) promote social cohesion using the proven model of self-help groups. In addition, measures to increase the supply, use, and affordability of preprimary education, childcare, and eldercare would also have an impact on female labor force participation.

Policy Measures on Discrimination as a Cross-Cutting Theme

Discrimination, prejudice, and stereotyping require interventions across all sectors. Some of the measures proposed above address discrimination in specific sectors. Other measures that have been proposed by the World Bank in Romania can be piloted elsewhere in the Western Balkans. These measures include the following: (1) establishing assistance and service systems in local administrative units for victims of discrimination that can also help them navigate their legal options and (2) introducing a surveillance mechanism to detect and reduce stereotyping against Roma in the media.

The Way Forward: Breaking the Cycle of Roma Exclusion through an Integrated Approach

To break the cycle of Roma exclusion, a comprehensive and integrated approach that tackles barriers throughout the life cycle is needed. An integrated approach ensures that the numerous barriers that Roma face are addressed in a holistic manner through the provision of essential services, social benefits, and focused interventions. Such an approach requires a coordinated effort across multiple sectors, including governments and community members. To achieve a coordinated effort, service management and delivery must ensure the timely identification of vulnerable groups, rapid needs assessment, and the tailored provision of services. A case management approach to service delivery is also necessary in an integrated approach. Actively reaching out to Roma communities is essential.

Vulnerability diagnostics are a necessary step in achieving tailored services. The identification of regional sources of vulnerability across education, health, labor markets, housing, and so on is key to the design of an optimal policy, program, and service mix for the integration of Roma and other vulnerable groups. An effort must be made to evaluate whether the current policy mix is well designed and if it is aligned with the vulnerability profile of the target population, that is, Roma and other vulnerable groups. The analysis of social program inventories can contribute to a more systematic approach to social protection. Such an analysis can help establish (1) whether program

design is aligned with the barriers and constraints faced by the target population and (2) whether any vulnerable groups are excluded, for example, because of stringent eligibility requirements or unfavorable geographical location.

1. Introduction

Key Messages

- The Roma are the largest ethnic minority in Europe, as well as one of the most deprived and socially excluded groups. They have limited access to services and economic opportunities even relative to non-Roma living in close proximity. Roma females are at a particular disadvantage.
- Demographic aging in Europe means that Roma inclusion is not only a moral imperative, but smart economics. Investing in the skills and productive inclusion of the young and growing Roma population can help counteract rising pension and health care costs.
- The potential benefits of Roma inclusion are substantial because equal labor market opportunities would enable more rapid productivity growth and greater fiscal benefits through increased revenue from taxes and lower social assistance spending.
- The "Enlargement Strategy and Main Challenges 2013–2014" identifies Roma inclusion as one of the fundamentals in the negotiation process (European Commission 2013).

Background and Scope of the Report

The Roma are the largest ethnic minority in Europe, as well as one of the most deprived and socially excluded groups; demographic aging in Europe means that ensuring equal opportunities for Roma is not only a moral and social imperative, but also an economic necessity.[7] In contrast with other minority groups, the Roma have no historical motherland and are found in nearly all countries of Europe and Central Asia.[8] Between 6 million and 16 million Roma are living throughout Europe, making Roma the largest minority in Europe (European Commission 2014). Because the working-age population is shrinking, governments cannot afford to leave significant and expanding groups of youth idle and excluded. If governments, particularly those in the Western Balkans, want to prepare for demographic aging and decline, they should start by providing equal opportunities for the poorest and most vulnerable citizens. This report focuses on identifying pathways to promote fair chances for disadvantaged Roma in the Western Balkans using a comprehensive, integrated life-cycle approach. Dealing with the discrimination and social and economic exclusion of most Roma citizens in the Western Balkans is not an intractable challenge.

Even though there are no recent reliable estimates of the size of the Roma population in the Western Balkans, available estimates suggest that this ethnic minority may represent between 700,000 and 1,360,000 individuals in the region. Census data allow for ethnic self-identification, but there is likely significant underreporting by individuals of Roma ethnicity. According to Council of Europe estimates,

7 Roma is used to refer to a number of groups (for example, Roma, Sinti, Kale, Gypsies, Romanichels, Boyash, Ashkali, Egyptians, Yenish, Dom, Lom, Rom, Abdal), including travelers, without denying the specificities of these groups. These groups are all considered under the wider Roma umbrella in the European Union (EU) Framework for National Roma Integration Strategies (European Commission 2011).

8 Some of the literature suggests that Roma originated in northern India and that large migrations occurred between the 9th and 14th centuries.

which report much larger Roma populations relative to census data, the Roma population ranges from 20,000 in Montenegro to 600,000 in Serbia (mean estimates; Table 1.1). Proportionally, the Roma population represents from 1.7 percent of the total population of Bosnia and Herzegovina to 9.6 percent of the population of North Macedonia.

Table 1.1. **Roma Population Estimates: Census and Council of Europe**

	Official census estimate			*CoE estimate*				
Country	*Self-declared*	*Census year*	*% of total population*	*Minimum*	*Maximum*	*Mean*	*Range, % of population*	*Mean, % of population*
MKD	53,879	2002	2.6	134,000	260,000	197,000	6.5-12.6	9.6
SRB	147,604	2011	2.0	400,000	800,000	600,000	5.5–11.1	8.3
ALB	8,301 Roma, 3,368 Egyptians	2011	0.4	80,000	150,000	115,000	2.5–4.7	3.6
MNE	6,251 Roma, 2,054 Egyptians	2011	1.3	15,000	25,000	20,000	2.4–4.0	3.2
KSV	8,824 Roma, 15,436 Ashkali, 11,524 Egyptians	2011	2.0	25,000	50,000	37,500	1.4–2.8	2.1
BIH	12,583	2013	0.3	40,000	76,000	58,000	1.1–2.2	1.7
Total	**269,824**			**694,000**	**1,361,000**	**1,027,500**		

Sources: Compiled from census publications of national statistics offices; Council of Europe estimates as cited in European Commission 2014.
Note: In the 2017 round of the Regional Roma Survey, the population censuses were used as a sampling frame in all countries except Albania, where estimates from Amaro Drom, a Roma nongovernmental organization, were used (total estimate close to 40,478). Census estimates are significantly lower than the CoE data because ethnicity is self-reported in the CoE data. CoE = Council of Europe.

Because of the lack of data, research on Roma integration to inform evidence-based policies has been limited. Questions on ethnicity are generally not included in nationally representative household surveys. Sampling the Roma population based on census data is problematic because of the difficulty of identifying the Roma through self-identification. In addition to the great diversity across Roma, many Roma are reluctant to identify themselves as Roma. Censuses thus generally undercount, and household surveys undersample.

This report aims to fill this gap by relying on data from the 2011 and 2017 rounds of the Regional Roma Survey (RRS), the most comprehensive survey to date on living conditions and human development outcomes among marginalized Roma households in the Western Balkans, as well as non-Roma households in the vicinity of the Roma. The 2011 RRS was implemented by the European Commission (EC), the United Nations Development Programme (UNDP), and the World Bank and was carried out in 12 countries of Central and Southeastern Europe (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Hungary, North Macedonia, Moldova, Montenegro, Romania, Serbia, and the Slovak Republic). The sample was representative of communities in which the share of the Roma population is larger than the share of Roma in the national population and encompasses both the Roma population and neighboring non-Roma. After the 2011 RRS was implemented, the EC Directorate-General for Neighbourhood and Enlargement Negotiations (DG NEAR), in an effort to explore changes in core development outcomes among Roma and among non-Roma who lived nearby, commissioned the UNDP and the World Bank to carry out another round of the RRS in the countries of the Western Balkans, in addition to Kosovo, in 2017.

Box 1.1. The Scope of the Regional Roma Survey

In the 2011 and 2017 RRS rounds, the sampling framework included communities in which the share of the Roma population was larger than the share of Roma in the national population. The Roma living in such communities are referred to as marginalized Roma (Gatti et al. 2016). In the 2011 wave, the sample was limited to Roma who live in Roma clusters, that is, areas in which the concentration of Roma is greater than 40 percent; in the 2017 wave, areas with a concentration of Roma ranging between 10 percent and 40 percent were also included.[a] In both waves, non-Roma who were living in close proximity to the sampled Roma (within 300 meters) were also interviewed. Members of approximately 750 Roma and 350 non-Roma households in the same neighborhoods or the vicinity were interviewed in each country in each survey year.

In both waves, Roma refers to those who self-identified as Ashkali, or Egyptians, or Roma, and the sample targeted marginalized Roma and their non-Roma neighbors.[b] The term Roma encompasses a wide diversity of groups (Table B1.1.1). The Roma sample was constructed based on the implicit endorsement of external identification (or implicit self-identification).[c] The sample focused on settlements in which the Roma population share is equal to or greater than the share of the Roma population in the total population. The former group is also known as marginalized Roma. Non-Roma refers to the non-Roma population living in close proximity (within 300 meters) to the marginalized Roma. The term is not meant to be representative of the total population of the country. The survey relies on non-Roma neighbors as a comparator group. In theory, because the two populations live in close physical proximity, varying circumstances that are expected to affect living conditions and outcomes, such as those related to geography, should be controlled for.

Table B1.1.1. **Self-Reported Ethnicity in the Survey Sample Denominated as Roma, 2017**

Percent

	ALB	*BIH*	*KSV*	*MKD*	*MNE*	*SRB*
Roma	75	100	32	99.8	78	98
Ashkali	0	0	44	0.1	1	2
Egyptian	25	0	24	0.1	21	0

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

The RRS sample is disproportionately more urban in all countries relative to the rest of the population. In North Macedonia, for instance, about 90 percent of the sampled marginalized Roma and neighboring non-Roma were living in urban areas, while this was true of only 57 percent of the overall population (Table B1.1.2). In Bosnia and Herzegovina, about 80 percent of the sampled Roma and their non-Roma neighbors were living in urban areas, compared with 40 percent of the overall population.

(continued)

(Box 1.1 continued)

Table B1.1.2. **Distribution of Urban and Rural Population, Roma, Non-Roma, and National, 2017**

Percent

Country	*Group*	*Urban*	*Rural*
Albania	Roma	65	35
	Non-Roma	65	35
	National	59	41
Bosnia and Herzegovina	Roma	80	20
	Non-Roma	80	20
	National	40	60
Kosovo	Roma	54	46
	Non-Roma	58	42
	National	39	61
North Macedonia	Roma	90	10
	Non-Roma	90	10
	National	57	43
Montenegro	Roma	81	19
	Non-Roma	78	22
	National	64	36
Serbia	Roma	69	31
	Non-Roma	69	31
	National	56	44

Sources: Roma and non-Roma: World Bank estimates based on 2017 UNDP-World Bank-EC Regional Roma Survey data. National: World Development Indicators. National, Kosovo: World Bank and Kosovo Agency of Statistics 2017, based on the 2015 Household Budget Survey.
Note: The national statistics represent the percentage of urban and rural residents in the total population. For Roma and non-Roma, the data represent the share of the sample that is urban or rural.

a. These areas represent between 36 percent and 55 percent of the unweighted country samples.

b. Respondents who self-identified as Gypsies in the survey were classified as Roma by interviewers. While the questionnaire included other identities that fall under the wider Roma umbrella of the European Union (EU) Framework for National Roma Integration Strategies (European Commission 2011), namely, Abdal, Dom, and Lom, no individuals self-identified with these ethnic identities.

c. In a first phase, enumerators approached the externally identified Roma household, and, in a second phase, the implicit self-identification is used. Questions on self-identification, interviewer identification, and language were included in both survey rounds so that the survey allows for different definitions of ethnicity and a more nuanced discussion of the different groups.

The report also draws on qualitative research conducted by the World Bank in collaboration with the Institute of Ethnography in Serbia, which facilitates an understanding of the heterogeneity within the Roma community as well as social and community norms. Parallel qualitative research conducted in Serbia financed by the Umbrella Facility for Gender Equality helps in understanding the mechanisms behind gaps in education and labor markets, with special attention to gender.[9] This research shows that the Roma are not a homogeneous group (Box 1.2).

The rest of this report is organized as follows. The rest of *Chapter 1* investigates why Roma inclusion matters. Aside from the moral imperative of equity and fairness, providing Roma with the same opportunities available to the general population is associated with potential fiscal gains, and Roma inclusion is also smart economically.

9 Details on the methodology and survey design of the quantitative survey and the qualitative research are presented in Appendix A.

Box 1.2. Policy Makers See Roma as a Whole and Fail to Perceive the Diversity in the Group

While the focus of this report is largely on the gaps between marginalized Roma and their non-Roma neighbors, there are significant intra-Roma inequalities, and Roma are an extremely diverse group. The qualitative work in Serbia reveals large differences among people who self-identify as Roma. Among the Roma who participated in focus groups and interviews, differences encompass the following:

- *Place of birth:* some have been born in Serbia; others have been displaced from Kosovo, are refugees from other parts of the Balkans, or are returnees from countries in the European Union (EU).
- *Origin:* some consider themselves Serbian; others consider themselves Albanian, Romanian, or Turkish because of their ancestry.
- *Language:* some speak Serbian, but the majority speak exclusively Albanian, German, Italian, Romani, or Romanian; only a handful are bilingual.
- *Housing:* respondents range from owners of private homes to participants in public housing programs, residents of temporary container settlements, and the homeless.
- *Schooling:* mainstream schools, special schools, or none.
- *Religion:* predominantly Eastern Orthodox, Islam, and, increasingly, Protestant.

Roma diverge greatly by how they identify with the ethnic marker, Roma. While some actively disassociate themselves from this identity, others have a strong sense of Roma pride; while some prefer assimilation, others are more sensitive to and supportive of difference. To generalize their life experiences based on ethnicity risks objectifying their identity as if they were part of a sharply bounded, internally homogenous group. In fact, a growing body of literature is critical of academic and policy perspectives on the Roma that fail to treat their ethnic identity as contextual and fluid (Surdu 2016).

The fundamental problem with policy makers in dealing with Roma, explained a 40- to 45-year-old Roma man who was participating in a focus group among men in Rakovica, Belgrade, Serbia, is that "they see us as a whole and fail to see the diversity within." Several other respondents during the qualitative fieldwork in Serbia agreed. Little is similar in the life experiences of an Albanian-speaking Roma from Kosovo who is of Turkish descent, a German-speaking Roma returnee from Berlin, and a Romani-speaking Roma from the south whose family has been living in Serbia for 400 years.

To counter the stereotypes, the qualitative study relied on carefully selected, marginalized Roma communities that represent a wide range of life experiences and reflected an explicit awareness of the possible differences between imposed categorization and the self-identification of the Roma.

Source: Majumdar and Woodhouse 2019.

By assessing the extent of the lack of access to human, physical, and social capital and the inequality of assets among Roma, *Chapter 2* evaluates the ability of marginalized Roma households to generate lifetime income. First, the ability of Roma households to access education, economic opportunities, health, housing and essential services, and documentation is evaluated.[10] Specific barriers that Roma face in accessing employment and human, physical, and social capital are also discussed, with an emphasis on the barriers affecting Roma women. Inequality in assets is likewise assessed. This may involve large gaps in access to human capital and employment, unequal access to credit and social capital, or a high concentration of simply assets among a particular group, such as non-Roma. This is important because, if inequality of assets is a major issue, policies to improve income inequality, but also growth, should emphasize ex ante equality of opportunity. The range of options includes policies that increase opportunities and incentives for the creation of new physical and human capital assets, the better identification, enforcement, and protection of property rights to assets held by marginalized Roma, and redistribution measures.

Chapter 3 describes the results of the application of an index to track progress in individual countries relative to an ideal standard of coverage and inequality and relative to the other countries in the region. The focus is on access or coverage and inequality because these may require different policy actions. The index and data of the 2011 and 2017 RRS rounds are used to highlight preliminary findings on (1) changes in coverage or access to basic services and economic opportunities among marginalized Roma and (2) changes in inequality (measured by absolute gaps between marginalized Roma and their non-Roma neighbors). This tool is useful in identifying the countries in the region that are faring better, the priority areas that have shown more progress or less progress within each country, and the indicators that have exhibited more progress or less progress within each priority area. This tool may also be used to provide justification for priority-setting by DG NEAR in each of the five priority areas and to offer guidance to countries on how to identify relevant priorities.

Chapter 4 focuses on policies to address Roma inclusion in the region. First, an assessment is offered of whether data for reporting, monitoring, and evaluating the progress in Roma inclusion are adequate. Then, whether the territorial segregation of Roma is an issue and whether there is scope for better territorial targeting of resources or whether additional targeted methods are needed is discussed. Finally, recent Roma inclusion policies and the diagnostic of the constraints identified in chapters 2 and 3 are summarized, and policy recommendations are developed for the five priority areas and the two cross-cutting themes, gender and discrimination. The conclusion is that several strategies must be applied to improve the reliability of ethnic-disaggregated data and that there is scope to improve monitoring and evaluation. Some of the challenges faced by marginalized Roma communities are not necessarily Roma-specific; there is scope for using poverty maps to target resources on areas with high poverty rates to benefit ethnic minorities. The evidence on interventions that successfully lift specific constraints that affect Roma in the Western Balkans is limited, but some interventions directed at vulnerable groups in other regions offer insights on what may work. The proper policy mix to address the most critical barriers that Roma face should include measures that may influence the decisions of Roma individuals with respect to various types of assets by affecting returns, removing barriers to access, and providing information about the use of and returns to assets. Investments in education and human capital can promote human capital accumulation; investments in basic services and infrastructure can address accessibility issues and improve the returns to certain

10 These five areas have also been identified by DG NEAR as priority areas for Roma inclusion. The priority area employment or labor markets is included under economic opportunities.

assets (through greater productivity, higher wages, and lower transportation costs); and land titling reforms can motivate households to use their land more intensively. Policies tackling discrimination may have an impact on the returns to schooling. The objective of this chapter is to develop an ethnic-informed policy and research agenda to help guide practitioners, development partners, and policy makers who prioritize Roma inclusion.

Why Does Roma Inclusion Matter?

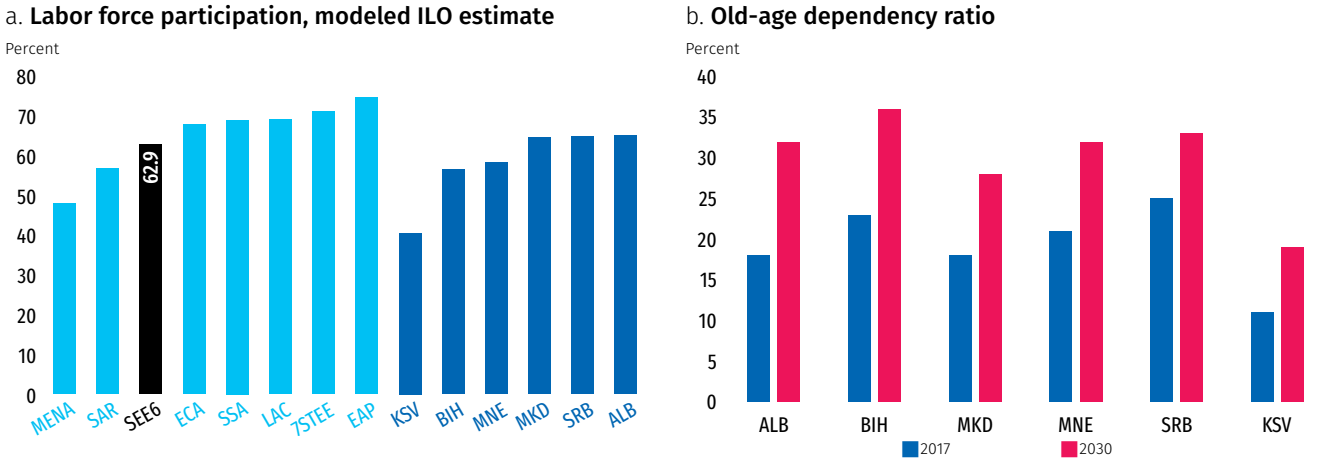
Roma are generally socially excluded; they lack access to services and economic opportunities relative to most of the rest of the population, even non-Roma living nearby. Roma face large gaps in access to services, economic opportunities, and well-being in comparison not only with the general population in the Western Balkans, but with non-Roma living nearby. For example, RRS data show that Roma are much less likely to attend school (including compulsory education), enjoy access to health care, and be connected to piped water or sewerage and are more likely to live in substandard housing. Some of the largest gaps between Roma and non-Roma are in access to economic opportunities. Roma are much less likely to participate in the labor market, and, if they participate in the labor market, they are less likely to be employed, even after one controls for gender, educational attainment, and age. Roma who are employed earn considerably less and face lower returns to education and a greater likelihood of having an informal job that does not pay into social security. Evidence suggests that part of the gaps between Roma and their non-Roma counterparts can be explained by discrimination and (sometimes adverse) social norms. Given their geographical proximity, non-Roma living in the vicinity should presumably have the same level of access as Roma to services such as education and health care and to economic opportunities. The fact that gaps exist between Roma and their non-Roma neighbors suggests that institutionalized social exclusion, prejudice, and discrimination may play an important role. Roma women are at a particular disadvantage because they experience a gender gap in labor market outcomes that is wider than the corresponding gap observed within their non-Roma neighbors or among the general population.

Addressing social exclusion and discrimination is not only a moral imperative; it also implies unexplored economic opportunities and forgone fiscal gains. Low employment rates, high informality, and low wages among Roma result in lower fiscal revenues. Recent background research for a World Bank study on Serbia finds that, on average, a Serbian Roma pays only half as much as the general population in income and payroll taxes and only one-fifth as much in social protection receipts, excluding retirement pension and child and family assistance benefits (World Bank 2015). This means that the exclusion of Roma results in forgone fiscal gains. In addition, there are considerable potential gains through increased productivity, further contributing to the economic opportunities that could be realized through better labor market inclusion among Roma.

Tapping into the potential of the Roma population is more important in aging societies. Labor force participation in the Western Balkans has been a source of concern not only because of the low levels of participation relative to other regions, but also because of the expected decline in the number of workers in the future following changes in the age composition of the population, characterized by a shift toward older age-groups. Labor force participation is particularly low in the Western Balkans (Figure 1.1, panel a). On average, 62.9 percent of the population of working age in the Western Balkans participates in the labor market, versus 68.0 in Europe and Central Asia and 71.3 percent in the seven

small transition economies of Europe.[11] Most countries in the Western Balkans are also characterized by rapidly aging societies; the share of the population of working age is projected to fall. As the share of the population ages 65 and over grows and the population of working age shrinks, old-age dependency ratios, that is, the number of people ages 65 and over as a proportion of the working-age population (15–64), will rise, placing added pressure on the sustainability of pension systems. Indeed, by 2030, old-age dependency ratios are expected to increase significantly in all countries in the Western Balkans; the greatest changes are projected in Albania and Bosnia and Herzegovina (Figure 1.1, panel b).

Figure 1.1. **Labor Force Participation and Old-Age Dependency Ratios, Western Balkans**



Source: World Bank estimates based on World Development Indicators; United Nations, Department of Economic and Social Affairs, Population Division 2015.
Note: ILO = International Labour Organization. 7STEE = seven small transition economies. EAP = East Asia and Pacific. ECA = Europe and Central Asia. LAC = Latin America and the Caribbean. MENA = Middle East and North Africa. SA = South Asia. SEE6 = Western Balkans. SSA = Sub-Saharan Africa (excluding high-income countries). Labor force participation = percent of labor force participants in the working-age population (ages 15–64). Old-age dependency ratio = people ages 65 or over as a percentage of the working-age population (ages 15–64).

If inactivity remains at current levels, while old-age dependency ratios increase during coming decades because of aging populations, several problems may arise, particularly in social security programs that depend on pay-as-you-go systems. Population aging has significant implications for the sustainability of social insurance, such as pension, health care, and eldercare systems, because there will be fewer workers contributing to social insurance schemes. If the supply of labor must increase to ensure the sustainability of social security, it must be replenished with women, younger and older workers, and ethnic minorities though labor force participation tends to be lower among these groups relative to working-age males.

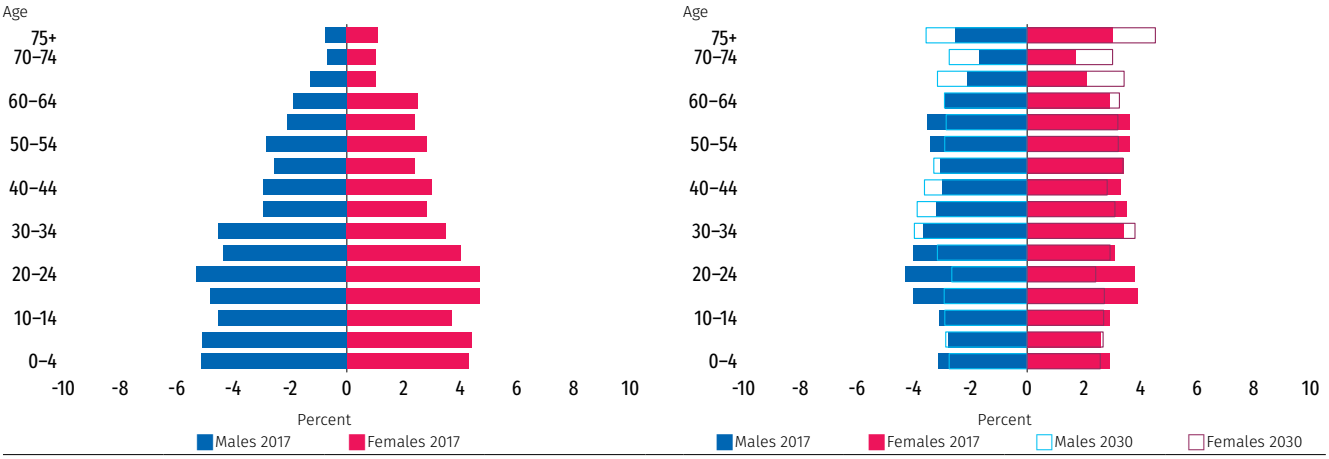
In contrast to the overall population in most Western Balkan countries, Roma are a particularly young population; therefore, absorbing them in the labor force is important to counteract aging and shrinking working-age populations. Across all countries, survey data show that the Roma population is significantly younger than their non-Roma neighbors and the total population. This is true even in younger countries in the region such as Albania and Kosovo (Figure 1.2). In contrast to total populations, the population pyramids among Roma are bottom heavy, that is, there is a large share of children and a small share of elderly. According to the RRS, the population pyramids among non-Roma neighbors are similar to those among the total population, suggesting that relatively high fertility rates and population growth are characteristic of Roma, but not necessarily of other groups that tend to have lower socioeconomic status than the general population.

11 The seven small transition economies of Europe are Bulgaria, Croatia, Estonia, Latvia, Lithuania, the Slovak Republic, and Slovenia.

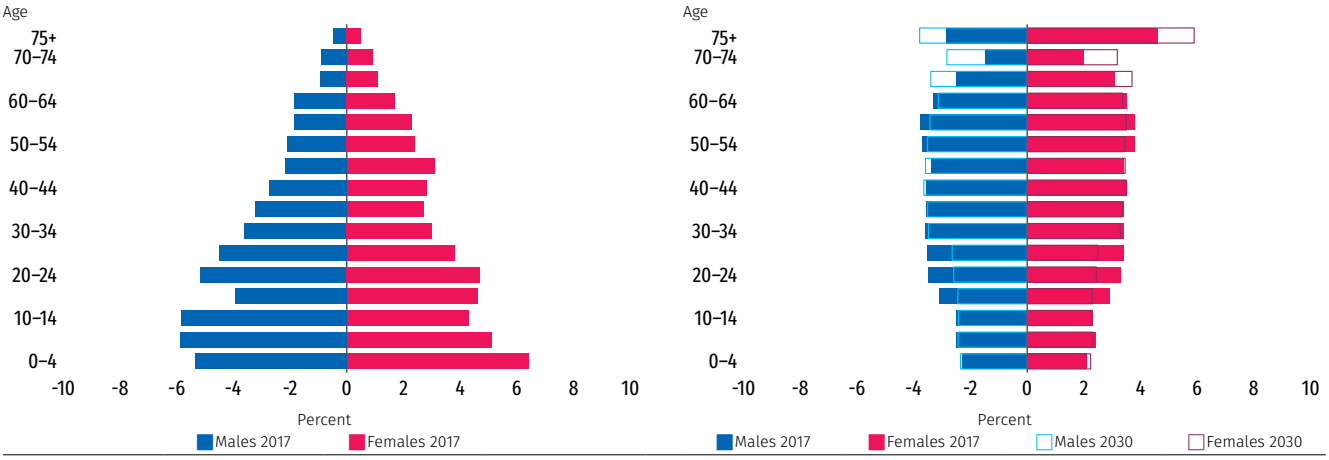
Figure 1.2. **Roma Are a Relatively Young Population**

Population pyramids, marginalized Roma 2017 (left) and national population 2017 and 2030 (right)

a. **Albania**



b. **Bosnia and Herzegovina**



c. **North Macedonia**

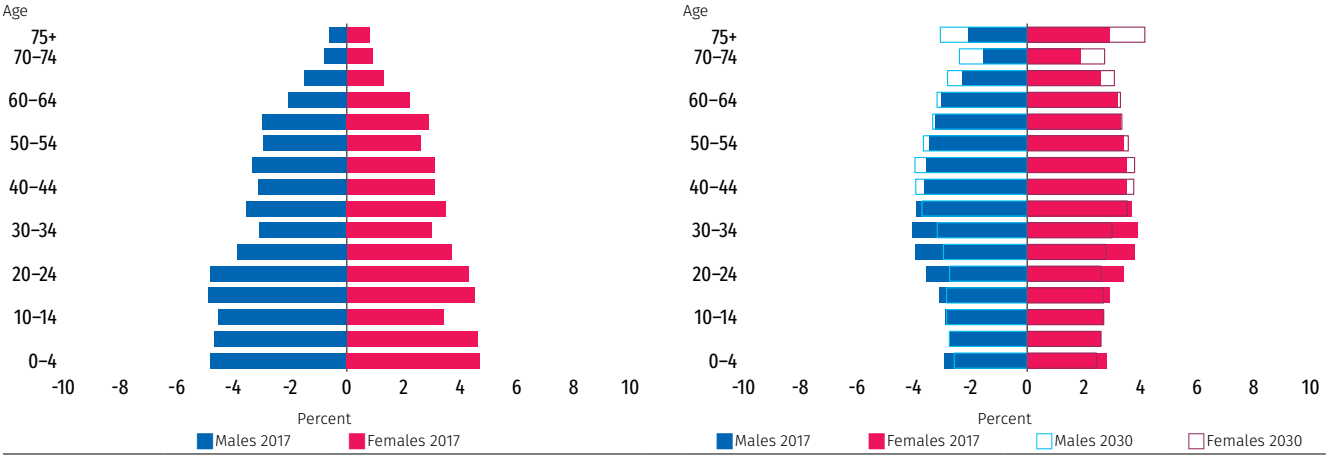
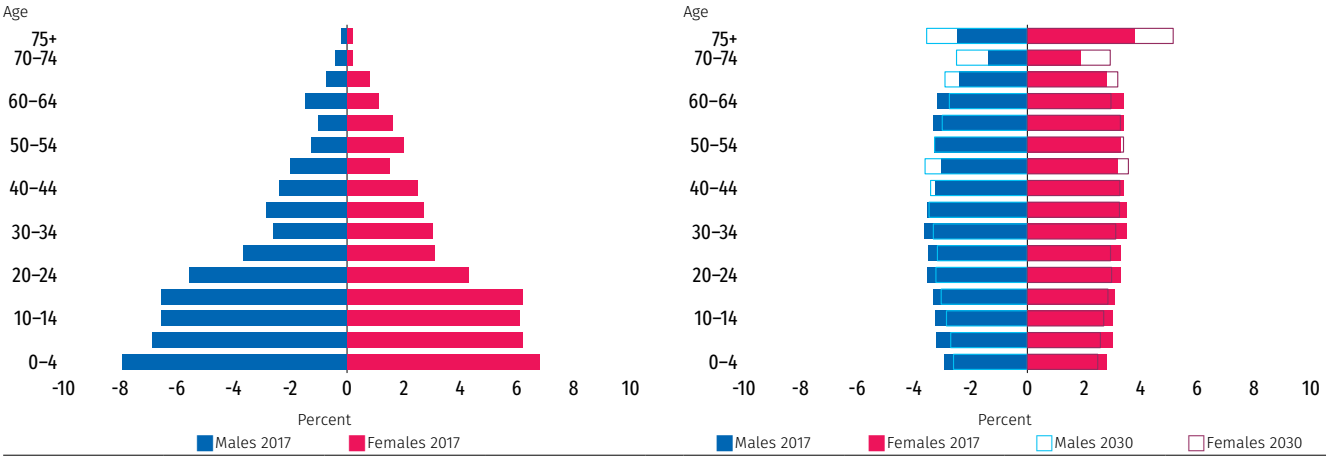
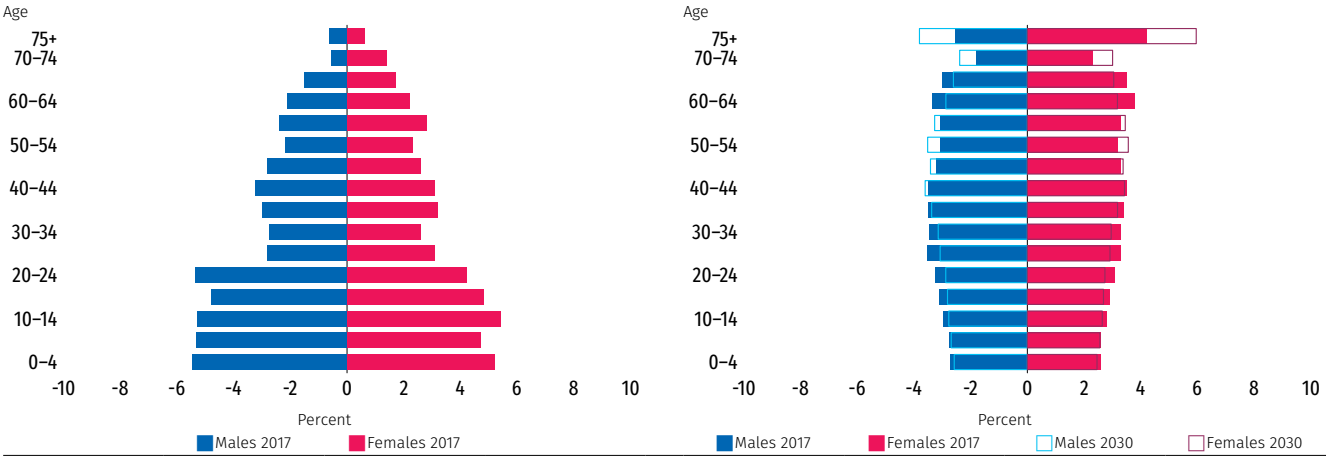


Figure 1.2. **Roma Are a Relatively Young Population** (continued)

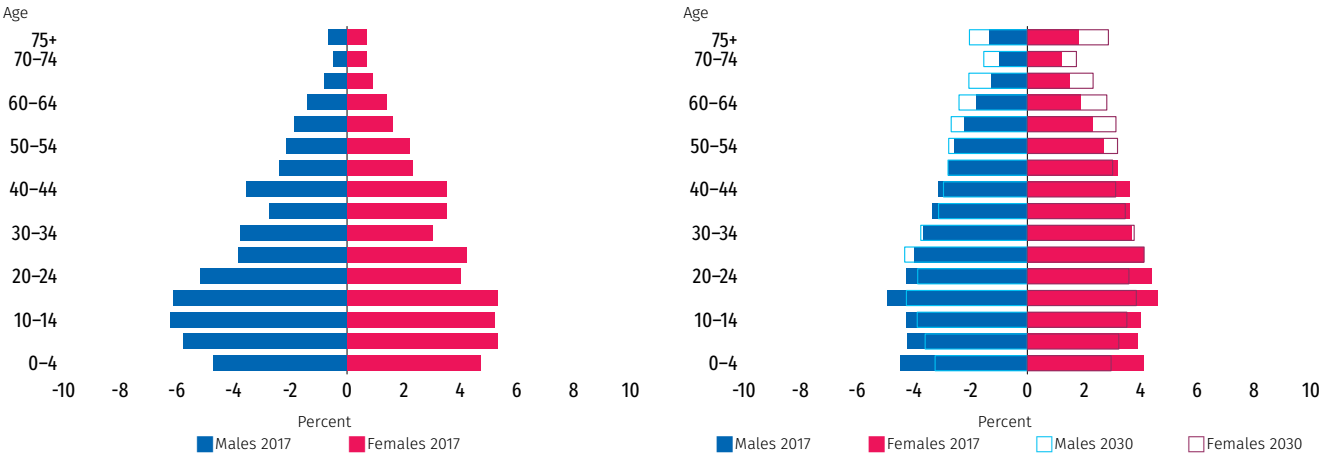
d. **Montenegro**



e. **Serbia**



f. **Kosovo**



Sources: Roma population pyramids: World Bank estimates based on weighted 2017 Regional Roma Survey data. National population pyramids: World Bank estimates based on United Nations, Department of Economic and Social Affairs, Population Division, 2017, World Population Prospects: The 2017 Revision. Kosovo: National Statistics Agency.
Note: Population projections are not available on the Roma population.

Because the general population is shrinking, future economic growth and the sustainability of pension systems will depend increasingly on children from today's low-income and disadvantaged households, especially Roma. Using data on the size of Roma population in Serbia (400,000 to 800,000), the World Bank estimates that, in the next 15–20 years, new labor market entrants of Roma descent may represent 14 percent to 29 percent of all new labor market entrants there (World Bank 2015). These new labor market entrants must be equipped with the appropriate skills and provided with equal opportunities if the potential fiscal gains, economic growth, and sustainability of social insurance systems are to be achieved.

The 2014 Enlargement Strategy and Main Challenges 2013-2014 identified Roma inclusion as one of the fundamentals in the negotiation process (European Commission 2013). The strategy asserts that the situation of most Roma communities is a matter of serious concern. This requires the integration of policies, funding mechanisms, focused attention on interventions that enable access to services and economic opportunities, and support for implementation processes. Data collection and adequate, reliable indicators are needed to help define or redefine and monitor processes and outcomes within countries and support EC efforts to target funds more effectively and to strengthen strategic cooperation with stakeholders, including international development partners, by building on their comparative advantage. In addition, the thematic evaluation undertaken by the European Union (EU) to assess support for Roma inclusion provided under the instrument for preaccession assistance (IPA I) drew attention once more to the importance of reliable data in designing and monitoring and policies and programs.

The Costs of Roma Exclusion

The extensive exclusion of Roma from society is indefensible from a social justice and human rights perspective. Even if this has been widely recognized, there is also a common perception that interventions to combat Roma exclusion may not be financially feasible, particularly in low- or middle-income countries in which resources are constrained. The economic argument in support of social inclusion that reflects the insight that not undertaking efforts to promote inclusion is costlier thus becomes fundamental.

The current costs of Roma exclusion are high. Investing in the skills and productive inclusion of the young and growing Roma population can have important economic benefits in aging countries. Roma inclusion involves ensuring that the Roma can access the same social and economic opportunities as the general population. This implies not only guaranteeing that men and women Roma can achieve the same educational attainment as the general population, but also that they can access the same economic opportunities. Achieving full Roma inclusion would result in higher labor productivity, as well as greater tax revenue and, eventually, lower social protection spending on Roma households. Roma exclusion currently leads to forgone earnings in society.

First, a Roma workforce excluded from the labor market means costly productivity losses. World Bank research on the total economic losses of social exclusion among Roma in Serbia finds that, if the Roma population of working age were to exhibit the same employment rates and labor earnings as the general population, the total gains from increased productivity alone could range from €314 million

to €1.28 billion a year, or from 0.9 percent to 3.5 percent of 2017 Serbian gross domestic product (GDP) (World Bank 2015).[12]

Second, Roma exclusion means fiscal losses through forgone tax revenues and increased social assistance spending. Equal labor market opportunities would also contribute fiscal benefits through increased revenue from taxes and lower social assistance spending. Significant gains would accrue in social contributions and income tax payments, as well as corporate tax revenues, because of greater productivity (World Bank 2014). There would also be savings through lower social protection payments among working-age individuals (not including pensions).[13] In Serbia, the associated fiscal benefits from augmented revenue from taxes and lower social assistance spending could range from €78.1 million to €317.0 million (ranging from 0.5 percent to 2.1 percent of government expenditure in 2017) (World Bank 2015).

Roma inclusion would thus be smart economics policy in the Western Balkans. The current costs to society arising from Roma exclusion are not negligible. Costs related to slower productivity growth, less fiscal revenue, and more widespread social assistance spending can amount to a substantial share of GDP and government expenditure. To counter rising pension, health care, and long-term care costs as societies age, it is also important to expand the share of the working-age population that is in the labor force. Tapping into the Roma population, which exhibits a high birthrate, will help replenish the population of working age. However, this cannot be done if Roma are not provided with sufficient opportunities to build human capital and access physical and social capital. Now, the gaps between Roma and the rest of the population are vast. A concerted, holistic effort is required to narrow these gaps, including by tackling prejudice and discrimination. The payoff will last for generations.

12 Data reported in current or nominal prices (2017 euros). Estimates for other countries are not available.

13 In 2011, the average Roma could expect to receive SRD 29,909 more in social protection per year (without including pensions) than the average Serbian. If Roma could achieve the same earning potential as the average Serbian, extra social assistance payments would not be necessary. (However, the data on social protection payments for Roma and the corresponding data on the general population may not be fully comparable.)

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2. The Most Important Challenges Roma Face

Key Messages

- Inequalities in education that affect Roma emerge early in life. Affordability and adverse social norms are significant constraints influencing preprimary enrollment and attendance among Roma. Providing childcare subsidies targeted on low-income families or the provision of other financial incentives could help address the affordability constraint, but there is also scope for more outreach and communication on the benefits of formal childcare among Roma communities.
- The association is strong between family background—mostly the educational attainment of mothers—and school enrollment among Roma children. This suggests that educational and outreach policies oriented toward Roma mothers may help raise enrollment among children.
- The quality of education among students from disadvantaged backgrounds is a serious issue in the Western Balkans, and Roma children are likely disproportionately affected by quality gaps. Efforts should be concentrated on narrowing these gaps.
- Accessibility to health services—medical and preventive care—is low, and significant health inequalities persist. The main reason respondents report that health care does not meet needs is lack of affordability because of high costs or inadequate health insurance coverage. The latter is particularly acute in Kosovo, in which health insurance is not mandatory.
- Several overlapping constraints limit employment among Roma. In addition to low educational attainment, the inadequate access of Roma to on-the-job training is curtailing the acquisition of vocational skills by Roma. Poor access to labor market information and networks may be affecting efforts to match Roma job-seekers with job vacancies. Moreover, Roma women are facing particular constraints to labor force participation, including the lack of affordable childcare and the existence of restrictive social and community norms that relegate women to the home and impede their educational attainment through child, early, and forced marriage.
- If the barriers on human capital formation among workers are reduced through higher educational attainment, training, and so on, but the demand-side constraints are not tackled, outcomes may not improve as one might hope. Measures focused on increasing employment among Roma in the private sector, such as wage and employment subsidies and hiring incentives are also necessary.
- Narrowing the human capital gap between Roma and non-Roma may not be sufficient to promote a fair chance among Roma in the labor market. Differences in the returns to human capital among Roma and non-Roma are a signal of unequal treatment. Governments need to maintain efforts to invest in education, but sensible policies affecting the returns to schooling, such as addressing discrimination in schools and on the labor market are fundamental.

Many factors contribute to the challenges that marginalized Roma face in the Western Balkans today. They can be understood using an asset-based framework. The factors affecting the ability of households to generate income over the lifetime can be understood using a standard asset-based

framework (Attanasio and Székely 1999; Carter and Barrett 2006; Hallegatte et al. 2014; López-Calva and Rodríguez-Castelán 2014). Based on this framework, the ability of households to generate lifetime income is affected along two main channels:

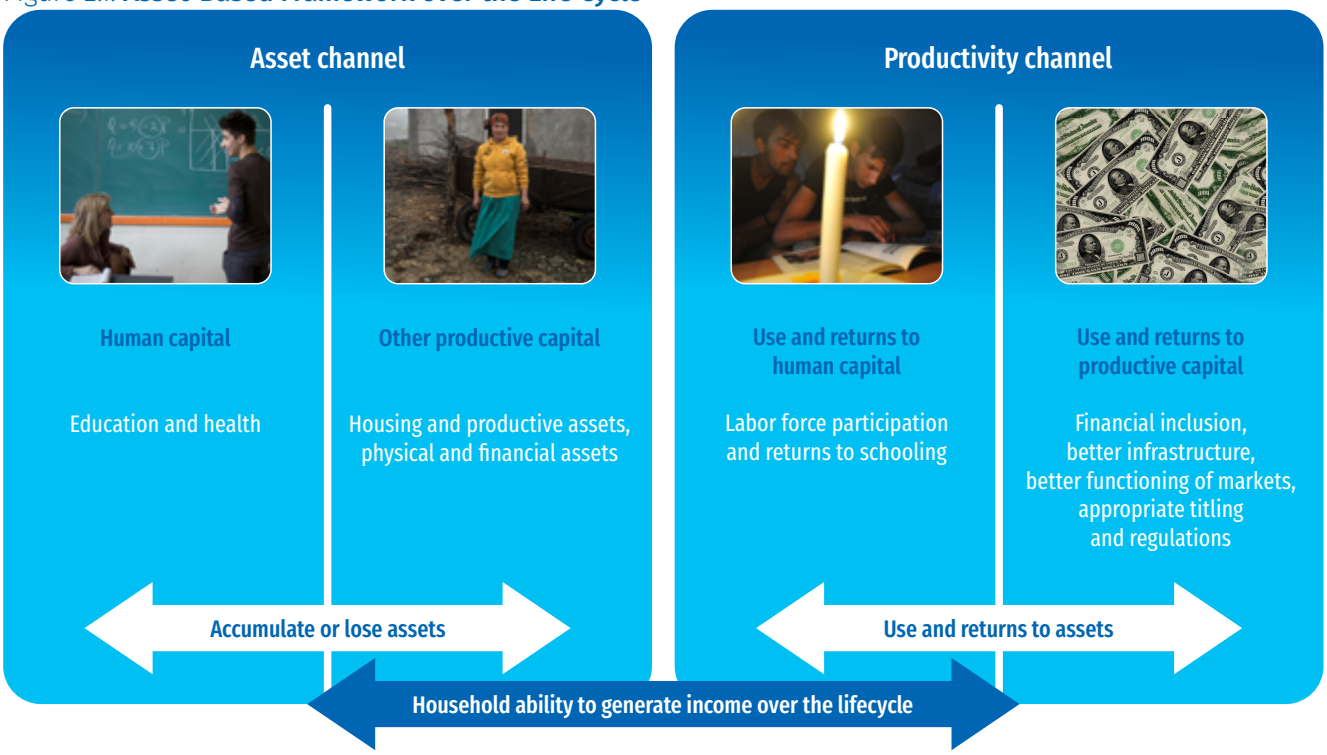
- *The asset channel:* Households can accumulate or lose assets over the life cycle. Assets are classified as (1) human capital, which includes education and health, (2) financial and physical capital, which includes financial assets (such as cash and savings), housing, and other productive assets (such as land), and (3) information and networks. The accumulation of human capital assets is a dynamic process and covers a variety of decisions over the life cycle. The investment starts with early childhood development and continues with skill acquisition during childhood and adolescence and, later, during adulthood through on-the-job training. It also includes investments in health at various stages. Health changes, such as disability or illness, affect labor market decisions and hence consumption or income possibilities. The depletion of human capital assets can also occur at the various stages of the life span and may include permanent or transitory health shocks, aging, natural disasters, or other structural changes. Households may cope with shocks using networks by, for example, relying on neighbors, friends, and family to find jobs or obtain loans, help family members go abroad so they can send remittances back home, or acquire social insurance.[14] The lack of social insurance to hedge against health, aging, or unemployment shocks can affect the ability of households to protect their accumulated assets over the life cycle and pass these assets on to future generations.

- *The productivity channel:* Households determine the intensity of use of assets and receive the market returns to these assets. For instance, they decide to use their human capital with some intensity to participate in the labor market or rely on networks to join the labor force or start a family, invest in schooling or training, or choose an occupation. Several external factors, including infrastructure, market function and regulations, and exclusion may affect the returns to the assets. Thus, titling and regulations, infrastructure, and access to basic services may affect housing decisions and the returns to physical capital. Exclusion and discrimination may affect labor market prospects and the expected returns to schooling, possibly influencing human capital investments. There is also interaction among the various types of capital. For example, human capital and physical capital can each affect labor productivity. Accumulated human capital can also be transmitted to the next generation, leading to higher returns and underlining the life-cycle nature of the returns to these investments.

In the rest of this chapter, this framework is used to examine the barriers that Roma face in generating lifetime income. The framework is summarized in Figure 2.1.

14 Migrant social capital is commonly conceptualized as resources of information or assistance that individuals obtain through their social ties to prior migrants (Garip 2008). This may be particularly important in countries where remittances represent a substantial share of household income, such as Kosovo.

Figure 2.1. **Asset-Based Framework over the Life Cycle**



Source: World Bank.

Human Capital: Education and Health Care

In this subsection, the focus is on education and health as the main factors associated with human capital formation and on the barriers and constraints faced by Roma. Human capital can be defined as the skills, knowledge, competencies, and attributes that facilitate the creation of personal, social, and economic well-being (OECD 2001). Human capital is thus an overarching term encompassing not only the skills needed to become a productive member of society, but also the physical, emotional, and mental health and well-being of individuals.

Human capital formation begins during gestation and continues throughout the lifetime. Human capital formation begins with a healthy pregnancy and access to prenatal care and proper nutrition among mothers. From birth to death, it encompasses access to health care services, proper nutrition, healthy habits, adequate living conditions (quality housing and infrastructure and access to services, such as sanitation and electricity), and the accumulation of skills and knowledge through access to education, training, and work experience. The five priority areas identified by the European Commission (EC) Directorate-General for Neighbourhood and Enlargement Negotiations (DG NEAR)—education, labor markets, health, housing and essential services, and documentation—contribute to the formation of human capital, facilitating the creation of personal, social, and economic well-being.

Education

In the following, several dimensions of education are analyzed across the life cycle, including preprimary and compulsory school enrollment and compulsory, upper-secondary, and tertiary completion rates; issues that particularly affect Roma communities, such as school segregation and special schools, are also examined.

In most countries, inequalities in education between Roma and non-Roma emerge early in life. Narrow gaps are observed in Bosnia and Herzegovina and in Kosovo. National enrollment in preprimary education (ages 3–5) is generally low in the Western Balkans.[15] It is much lower there than in other parts of the world and, in some countries, for example, in Bosnia and Herzegovina and in Kosovo, is even close to the average in the least developed countries, around 13 percent.[16] In nearly all countries in the region, Roma children are significantly less likely to be enrolled in preprimary school than other children in the population and even than their non-Roma neighbors (Figure 2.2). The only exception is Bosnia and Herzegovina, where enrollment rates are dismally low among both Roma and their non-Roma neighbors, signaling that early childhood education is not only a Roma issue there.[17] The gap is also relatively small in Kosovo, but enrollment is low. Gender gaps in enrollment in early childhood education are not significant, except in Bosnia and Herzegovina, where the preprimary enrollment rate is only 1 percent among Roma girls and 6 percent among Roma boys.

Ethnic differences in preprimary enrollment are a cause of concern because preschool and kindergarten, especially if the facilities are high quality, are closely associated with children's school readiness and early achievement. Many early childhood programs have been rigorously evaluated, and, even if the estimates of the size of the outcomes differ, these programs can increase cognitive skills and foster early academic achievement.[18]

Children in low-income households may benefit more than children in high-income households from preprimary enrollment; access to preprimary school is also especially critical for Roma children. For example, evidence on the United States shows larger gains in language, literacy, and mathematics from kindergarten participation among children from poor backgrounds relative to children in middle-class families (Magnuson and Waldfogel 2016). Evidence on Bulgaria, the Czech Republic, Hungary, Romania, and the Slovak Republic shows that, if Roma children attend preschool, they are more likely to be able to (1) identify 10 letters of the alphabet, (2) read four simple, widely used words, (3) write their own name, (4) recognize numbers from 1 through 10, and (5) know simple sentences in the national language (World Bank 2014a). Preschool attendance can yield greater benefits especially if the home learning environment is not ideal. Evidence produced through the Regional Roma Survey (RRS) shows that Roma children are generally unlikely to have access to books at home, to look at picture books or read books with their caregivers at home, or to be taught letters or numbers, placing them at a disadvantage relative to their non-Roma peers. International evidence shows that the home learning

15 Preprimary education refers to nurseries, day care, crèches, preschool, and kindergarten.

16 UNICEF global databases, 2017, based on Demographic and Health Surveys, Multiple Indicator Cluster Surveys, and other nationally representative surveys and censuses.

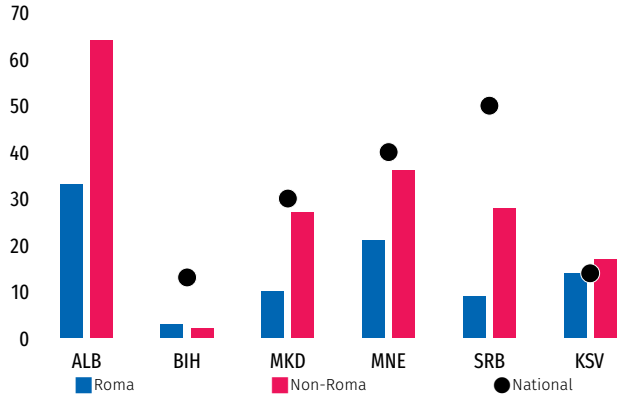
17 However, although the evidence does not show an ethnic gap in preprimary education in Bosnia and Herzegovina, measures to address issues in early childhood education should also address the particular barriers faced by Roma, such as cost and the lack of information among Roma to clarify the need for education and the availability of solutions.

18 The meta-analysis of Leak et al. (2012) of 65 methodologically rigorous studies—20 of which were experimental—conducted between 1967 and 2007 estimated an end-of-treatment effect of about 0.33 standard deviations for cognitive and achievement outcomes (Magnuson and Waldfogel 2016).

environment can be particularly important for a child's cognitive, social, and emotional development, even more important than parental occupation, education, or income (Kendall et al. 2008).

Figure 2.2. **Inequalities in Education between Roma and Non-Roma Emerge Early in Life**

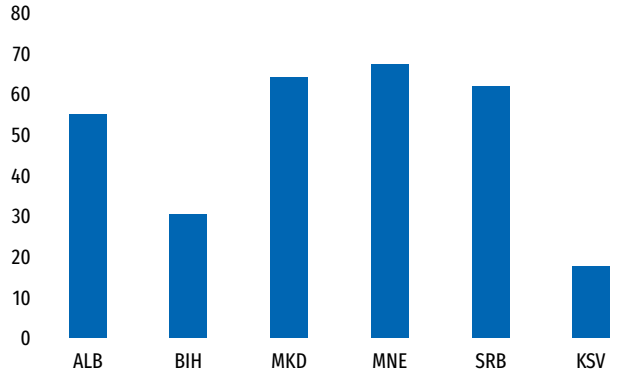
Net preprimary enrollment rate, % of children ages 3–5



Sources: World Bank estimates based on weighted 2017 Regional Roma Survey data and the most recent available national data, BIH: MICS 2011–12, KSV: MICS 2012–13, MNE: MICS 2013, MKD: MICS 2011, SRB: MICS 2014.
Note: Recent data on Albania are not available since the latest MICS, collected in 2005. MICS = Multiple Indicator Cluster Surveys.

Figure 2.3. **A Large Share of Roma Speak Romani at Home**

Share of Roma households that speak Romani at home, %



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Preprimary attendance can also help Roma children overcome language barriers. Attending preprimary school is not mandatory in the Western Balkan countries, and legislation in some of these countries does not stipulate that educational programs for minority children should be taught in the minority language, such as Romani. In cases in which the law is explicit, it is not successfully implemented.[19] According to the 2017 RRS, a significant share of Roma speak Romani at home (Figure 2.3). This means that many Roma children often are only immersed in the official national language for the first time when they reach primary school, and, because this tends to be the only language that is used in the curriculum, Roma children often struggle to keep up with their peers. Access to preprimary school can enable Roma children to encounter the national language from a young age, preparing them for primary school.

Understanding the most important barriers that limit enrollment and possible interventions to address these barriers is critical; recent childcare supply and demand assessments on countries in the Western Balkans suggest that the availability and affordability of childcare and adverse social norms are significant constraints also among the general population.[20] In Bosnia and Herzegovina, the affordability of formal childcare services is limited, and, while social perceptions of childcare are becoming more open, social norms tend to be unfavorable to the use of childcare by mothers (World Bank 2017a). In Kosovo, not only is availability important, but social norms are a strong deterrent as well (World Bank 2017b). In Serbia, the limited availability of affordable services characterizes the relatively low utilization of formal childcare services, particularly in rural areas (World Bank 2017c). As a result, childcare in the Western Balkans is mostly provided at home. This can disproportionately

19 In Serbia, the Federal Law on Rights and Freedoms of National Minorities (2002) recognizes Roma as a national minority. The government reports as follows: The Yugoslav legal system guarantees not only the right of persons belonging to national minorities to study their mother tongue, but also the right, under certain conditions set by the law, to receive education, within the public education system, in two languages or in their mother tongue. When the program of instruction and curriculum are realized in the Serbian language, it is ensured that pupils belonging to national minorities in the Republic of Serbia are taught according to the program of instruction and curriculum for their mother tongue with elements of the national culture. (UNECE 2003, 298)

20 See World Bank (2014b, 2015, 2016a).

affect Roma, considering that many Roma live in segregated areas where access may be an issue and additional barriers (lack of information and social norms) are also important, according to recent qualitative work in Serbia (Majumdar and Woodhouse 2019).

Evidence gathered through the RRS supports these findings and suggests that affordability and social norms are a significant constraint to preprimary attendance among Roma children. When asked why they have not enrolled 3- to 5-year-olds in preschool or kindergarten, the majority of caregivers, both Roma and non-Roma, answered that they cannot afford it or that they do not see a need because someone in the household can care for the child, they feel their child should stay with the family, or their child is too young to attend school (Appendix E, Table E.1). In the great majority of households, children who do not go to preprimary school are cared for by their primary caregiver, such as mothers; the caregiver is the grandmother in about 20 percent of cases, implying significant reliance on other family members rather than formal care for cultural reasons (such as the belief that the child should stay within the family) or because of a lack of other affordable childcare options.

The lack of available childcare options also appears to be a significant barrier to preschool enrollment among Roma, but further evidence is needed. Across countries, a significant share of Roma caregivers said the lack of childcare options was the reason their children were not attending preprimary school: between a fifth in Albania and a third in North Macedonia and Serbia said there was no program nearby or that nearby programs were full.[21] Availability also seems to be a particular barrier in Bosnia and Herzegovina: one-fourth of Roma caregivers cited availability as the reason their children were not in school, and 40 percent of all households, both Roma and non-Roma, reported there was no kindergarten nearby. Bosnia and Herzegovina also exhibits the lowest share of Roma caregivers responding that they did not see the need to send their children to preprimary school.[22] The extremely low preprimary school attendance in this country points to a high prevalence of unmet need. Perceived availability can be combined with a more objective analysis of availability by overlaying municipal maps of school coverage and the concentration of the Roma population based on population censuses.

Providing childcare subsidies or other financial incentives to low-income families could help address the affordability constraint, but there is also scope for more outreach and communication about the benefits of formal childcare among Roma. Across all countries, most respondents said that the hiring of more Roma teachers or mediators, fee waivers, food coupons, free transport, or other, similar measures would lead them to reconsider sending their child to preschool, suggesting that social norms that relegate children to staying at home may not be the critical binding factor keeping young Roma children from school.[23] Recent evidence on Bulgaria indicates that eliminating payment for preschool generates a sizable increase in participation among Roma children (Huillery, de Laat, and Gertler 2017). In their National Action Plans for the Inclusion of Roma, all governments in the region provide for fee waivers in preprimary education. Indeed, across countries, most Roma whose children attend preprimary school report they do not pay fees, though a third report paying fees in Bosnia and Herzegovina, North Macedonia, and Serbia. Fee waivers alone may not always be sufficient: not all Roma parents may be aware that the waivers exist, and there are other costs associated with school

21 Qualitative evidence on Serbia shows that Roma parents are sometimes less knowledgeable about the availability of preschool or kindergarten programs. This may explain why, relative to their non-Roma neighbors, Roma are more likely to report there are no kindergartens nearby.

22 The share among Roma caregivers was 55 percent in Bosnia and Herzegovina. This compares with 68 percent to 75 percent among Roma in other countries.

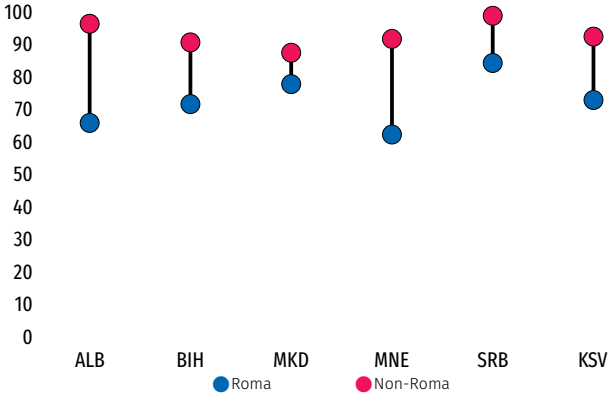
23 In North Macedonia and in Serbia, a minority of respondents said Roma teachers or mediators would lead them to reconsider sending their young children to school; however, between a quarter and a third said only that such a measure might cause them to reconsider.

attendance, such as transport, books, school supplies, and clothes, which may prove prohibitive among poor households, especially if mothers are staying home anyway, often because, even if they want to work, no jobs are available.

Enrollment gaps are even wider in compulsory education; while primary and lower-secondary education are nearly universal among the majority population in all countries, this is not the case among Roma children. The compulsory public school system is supposed to be the great equalizer by providing equal opportunities for children regardless of ethnicity or socioeconomic background, but large inequalities persist (Figure 2.4). In this report, for comparability across all countries, compulsory education is understood as primary and lower-secondary school (International Standard Classification of Education [ISCED] 1 and 2); however, though compulsory education covers up to lower-secondary school in all countries, it covers up to upper-secondary school in North Macedonia (ISCED 3).[24] In 2017, the gaps between Roma and their non-Roma neighbors in compulsory education enrollment ranged from 10 percentage points (North Macedonia) to 31 and 29 percentage points (Albania and Montenegro, respectively). In Albania and Montenegro, at least a third of Roma children ages 7–15 were outside the school system in 2017.

Figure 2.4. **Large Gaps Exist in Enrollments in Compulsory School**

Adjusted net enrollment rate, % of children ages 7–15



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Compulsory education refers to ISCED 1 and 2.

In most countries, a large share of the gap in enrollment in compulsory education between Roma and neighboring non-Roma cannot be explained by differences in individual and household characteristics, suggesting that unobservable factors, such as discrimination and social norms, may play a key role; in contrast, in North Macedonia and in Montenegro, a large share of the gap is explained by living conditions and demographics.[25] In analyzing the gap in compulsory school enrollment between Roma and non-Roma neighbors using a Blinder-Oaxaca decomposition (see Box 2.1 for methodological details), one finds that, in most countries (except North Macedonia and Montenegro), less than half the gap between Roma and non-Roma children can be explained by differences in individual or household characteristics (Figure 2.5, panel a).[26] Thus, most of the differences in enrollment cannot be explained by factors such as income, demographics, household characteristics, or living conditions, suggesting that discrimination and social norms may be playing an important role. For example, in Kosovo, the ethnic gap is 20 percentage points (the dots in Figure 2.5, panel a), and endowments (the explained portion; the blue bar), account for about 8 percentage points, that is, 39 percent. Thus, if Roma had the same characteristics as non-Roma, their enrollment rates would increase by 8 percentage points. The countries with the lowest shares in the explained portion are Albania and Serbia, with less than

24 In North Macedonia, upper-secondary education has been compulsory since 2008. General secondary education covers a period of four years, whereas vocational secondary education lasts from two to four years, depending on the program.

25 These factors include gender, household income, household characteristics, and household living conditions. Household characteristics include whether the national language is spoken within the household, the educational attainment of the household head, and whether the mother works; the mother is proxied as the female household head or the wife of the household head. Living conditions include whether the household has at least 30 books, has access to piped water inside the dwelling, is overcrowded, or is located in an area with a population that is more than 40 percent Roma.

26 However, in Albania, self-reported discrimination because of Roma ethnicity is considerable; 49 percent of Roma report they had been discriminated against at school (as a student or a parent) because of their ethnicity during the previous five years (see Figure 2.31).

1 percent of the gap explained. Qualitative evidence on Serbia points toward discriminatory factors in the education system (see Box 2.2). In North Macedonia and in Montenegro, where more than half the gap is explained, most of the explained gap is due to differences in demographics (primarily the language spoken at home, the education of the household head, and the working status of the mother) and living conditions (Figure 2.5, panel b). These findings appear to be in line with the lower incidence of self-reported discrimination at school because of ethnicity featured in Figure 2.31 in both countries and the high incidence observed in Albania.

Box 2.1. **Blinder-Oaxaca Decompositions: Inequality of Outcomes, Roma and Non-Roma**

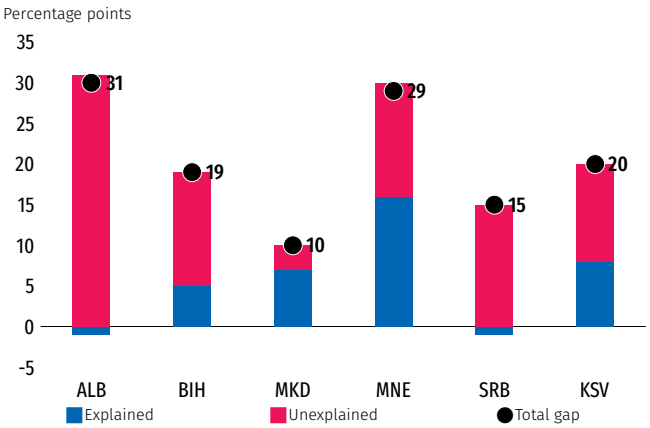
In this report, Blinder-Oaxaca decompositions are used extensively to explain inequalities in education, labor markets, and health indicators between Roma and their non-Roma neighbors (Blinder 1973; Oaxaca 1973). The methodology is often applied to study differences in labor market outcomes by group (such as race, sex, ethnicity) based on linear regression models.

For instance, this methodology is used here to understand why differences are observed in enrollments in compulsory education or earnings between Roma and non-Roma in a given survey year. The outcome differential between the two groups is divided into a part that is explained by differences in observable characteristics (also referred to as endowments) between the two groups and a residual part that is unexplained and that cannot be accounted for by differences in observable characteristics. For example, gaps may be observed in earnings between Roma and their non-Roma neighbors because Roma have lower educational attainment or less work experience, that is, different observable characteristics, but, even accounting for these differences, one may still observe an earnings gap. This unexplained part is often interpreted as a measure of discrimination, but it also includes the effects of unobserved covariates in the observed outcome gaps. Throughout the report, twofold decompositions are used; threefold decompositions include a third component, the interaction, which measures the simultaneous effect of differences in endowments and coefficients.

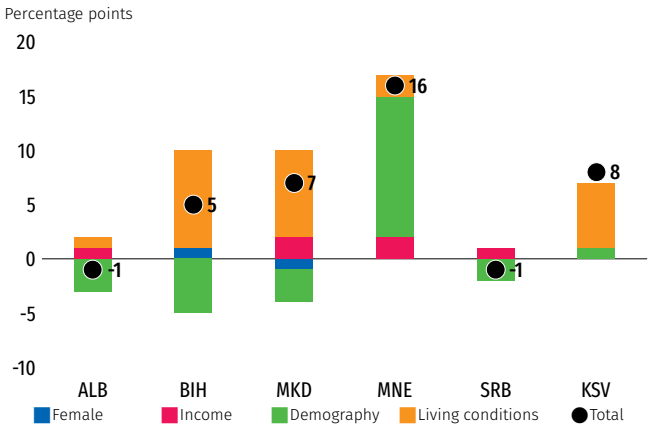
The traditional decomposition is designed to explain differences in continuous variables across groups, but some extensions have been developed to apply the method to binary outcome variables, such as employment and unemployment rates using logit or Probit models (Fairlie 2005) or linear probability models (Long 1997; Wooldridge 2003). An important caveat is that, because decomposition methods are based on regression analyses, which are purely descriptive, they reveal the associations that characterize education, labor, or health inequality, but the implications for policies aimed at reducing such inequalities are limited because the identification of causal effects is not trivial, given the data available. In addition to the decomposition between explained and unexplained components, one may also investigate the detailed contribution of the single predictors to the explained and unexplained parts. For example, one may assess the extent to which education and work experience contribute to explaining the ethnic wage gap and also how much of the unexplained portion is caused by differences in the returns to education and experience.

Figure 2.5. **Blinder-Oaxaca Decomposition of the Enrollment Gap in Compulsory Education, Ages 7–15, Roma vs. Non-Roma**

a. **Decomposition of total gap: explained vs. unexplained**



b. **Decomposition of the explained component**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note:. Living conditions: if the household has at least 30 books; if it has access to piped water inside the dwelling; if the household is overcrowded; and whether or not the household is in an area that is more than 40 percent Roma. Demographics: if the household speaks the national language at home; education of the household head; whether or not the mother works (proxied as the woman household head or wife of the household head). Income refers to household per capita income.

There is also a strong association between family background—mostly the educational attainment of mothers—and school enrollment among Roma children of compulsory school age; policies directed at raising the educational attainment of mothers, improving parenting skills, and relaxing liquidity constraints among less well educated parents may benefit school enrollment. Regression estimates of school enrollment among Roma children ages 7–15 show that, after one controls for household per capita income, the probability of enrollment increases significantly with each additional year of education of the mother, ranging from 3 percent to 4 percent in North Macedonia and Serbia to 10 percent to 11 percent in Albania and Montenegro (see Appendix E, Table E.2–Table E.7).[27] Enrollment also increases according to the number of years of education of the father, though the effect is smaller and only statistically significant in Bosnia and Herzegovina and in North Macedonia. These results may indicate that more well educated Roma parents dedicate more inputs to their children's education, which points to a vicious intergenerational circle among Roma because low educational attainment among Roma parents perpetuates lower school enrollment among the children. It is possible that parents with low educational attainment have less access to credit to send their children to school; less access to information may also lead to less likelihood that children will be enrolled. Low parental education also results in lower early childhood stimulation among Roma children. RRS evidence shows that Roma children are less likely to have books at home and less likely to have parents who share activities with them, such as looking at picture books together or reading, drawing, painting, or teaching the alphabet or how to count. This means that, even if they are enrolled in school, Roma children are still at a significant disadvantage because of their parental background. The importance of family background has, broadly speaking, three policy implications. First, educational programs oriented toward Roma mothers may help increase enrollment. Such programs may include training in parenting techniques and early childhood stimulation, along with information regarding the importance of preprimary school and beyond. Second, relaxing liquidity constraints among less well educated parents may be important in raising educational attainment among children. Finally, because children in less well educated households may tend to acquire less education than children born in more well educated households and parental training programs may not suffice to offset

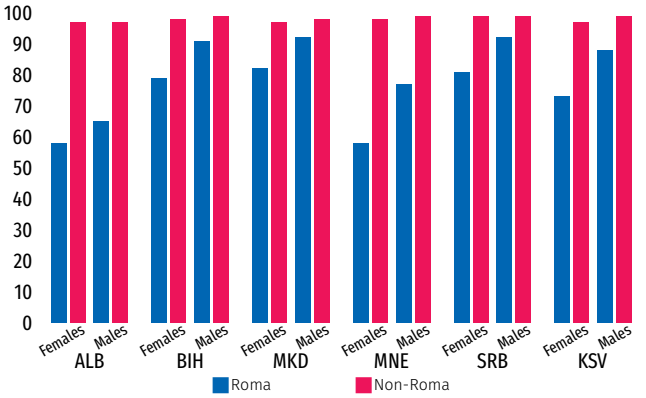
27 World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

this phenomenon, programs that target young children from low socioeconomic backgrounds with interventions that seek to substitute for the missing stimulation at home are also important.

Adult education is particularly important, considering the low self-reported literacy rates among Roma, especially Roma females ages 15–64. Literacy rates among the general population and non-Roma neighbors (both males and females, ages 15 and above) are at or close to 100 percent. However, among Roma females of working age (15–64), self-reported literacy ranges from only 58 percent in Albania and Montenegro to 82 percent in North Macedonia. Among Roma males, the rates range from 65 percent in Albania to 92 percent in North Macedonia and Serbia (Figure 2.6). These rates signal that Roma females are particularly affected by low skills acquisition.

Figure 2.6. **Self-Reported Literacy Rates Are Low among Roma, Especially Roma Females**

Literacy rates, by gender, ages 15–64, %



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Completion rates in compulsory education among Roma ages 18–21 are generally low; there are also large gender differences, significantly larger than the differences in other educational levels. Compulsory education completion rates range between 34 percent in Montenegro and 70 percent in North Macedonia. Roma females are disproportionately affected. In contrast with the relatively small gender gaps in preprimary and compulsory enrollment, Roma females face significantly larger gender gaps in compulsory completion rates. The gaps to the disadvantage of females reach 13 percentage points in Montenegro and 16 percentage points in Serbia.[28]

Among older cohorts, the gaps in educational attainment are even wider; few Roma complete upper-secondary education; and tertiary education completion rates are at or close to zero among Roma. The gaps relative to neighboring non-Roma are significant. In upper-secondary education (ISCED 3), completion among Roma ages 22–25 shows a wide range across countries, from 3 percent in Montenegro to 32 percent in North Macedonia (Figure 2.7). These rates are similar to the rates observed in least developed countries, which range from 5 percent among the poorest inhabitants to 21 percent among the overall population.[29] The great majority of the neighboring non-Roma have completed upper-secondary education; in 2017, the share ranged from 74 percent in Albania to 89 percent in Serbia. The gender gaps in favor of boys in upper-secondary completion are significant in Kosovo and Serbia, at 12 and 16 percentage points, respectively. Completing secondary education is associated with higher labor force participation, higher earnings, higher levels of participation in civic life, and better health (Levin and Belfield 2007; Pleis 2010). Consequently, policies aimed at improving school completion rates and reducing the number of students dropping out of school are relevant, especially in the context of Roma, among whom upper-secondary completion rates are relatively low. Tertiary completion rates, increasingly important in the labor market, ranges from 0 percent to 3 percent among Roma (ages 26–29). Among non-Roma neighbors, tertiary completion is between 16 percent (Serbia) and 30 percent (North Macedonia) (Figure 2.8).

28 For gender-disaggregated data, see Appendix C.
29 UNICEF global databases, 2017, based on Demographic and Health Surveys, Multiple Indicator Cluster Surveys, and other national household surveys.

Figure 2.7. **The Ethnic Gap Is Wider in Upper-Secondary Completion**

Upper-secondary education completion rate, % of population ages 22–25

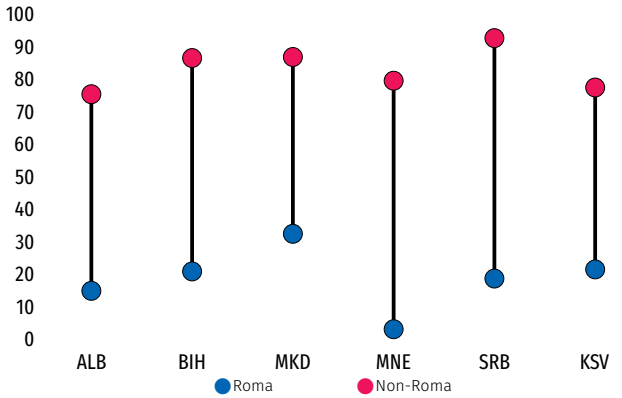
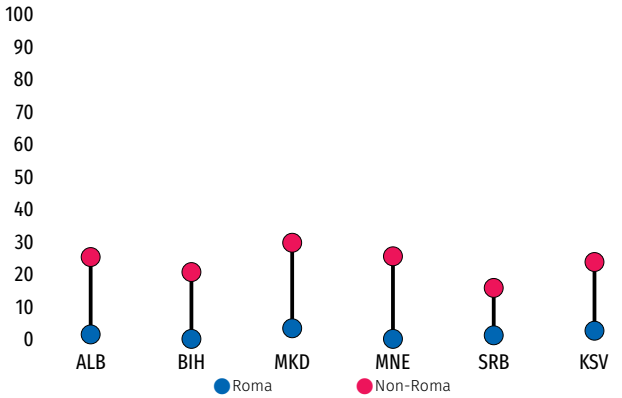


Figure 2.8. **The Tertiary Education Completion Rate Is Dismal among Roma**

Tertiary education completion rate, % of population ages 26–29



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Table 2.1. **Many Roma Cite Cost as the Reason for Not Attending School; among Roma Females, Child Marriage Is Also a Factor**

% ages 6–24 not attending school who have completed ISCED 2 or less

Roma, males	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Costs of education too high (fees, transport, books, and so on)	52	49	46	41	46	57
Need to work for income or have found job	20	15	11	11	10	8
Did not pass entry exam or did poorly in last level	1	5	0	2	2	0
Feel sufficiently educated	1	11	7	9	14	6
Marriage	5	3	7	8	8	4
Pregnancy	—	—	—	—	—	—
Other	21	18	29	29	20	24
Roma, females	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Costs of education too high (for example, fees, transport, and books)	46	49	35	40	30	49
Need to work for income or have found job	10	11	7	5	3	1
Did not pass entry exam or did poorly in last level	0	2	2	1	1	2
Feel sufficiently educated	3	10	4	9	16	4
Marriage	21	11	28	18	32	19
Pregnancy	2	0	1	2	3	0
Other	18	16	23	24	16	25

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Data refer to individuals in the 6–24 age-group who have only completed ISCED 2 or less. — = does not apply.

Cost barriers are fundamental in limiting the enrollment of Roma children in compulsory education and subsequent stages of education. Across countries, close to half of all individuals ages 6–24 who are not in school and who have completed compulsory education (ISCED 2) report that they are not attending school because of economic factors, namely, the cost of education or related expenses such as transport. A large share (especially among males) also reported that they needed to work for income or have found jobs; this is especially the case among males in Albania (20 percent) (Table 2.1). In Serbia, 14 percent and 16 percent of males and females, respectively, report that they feel they are

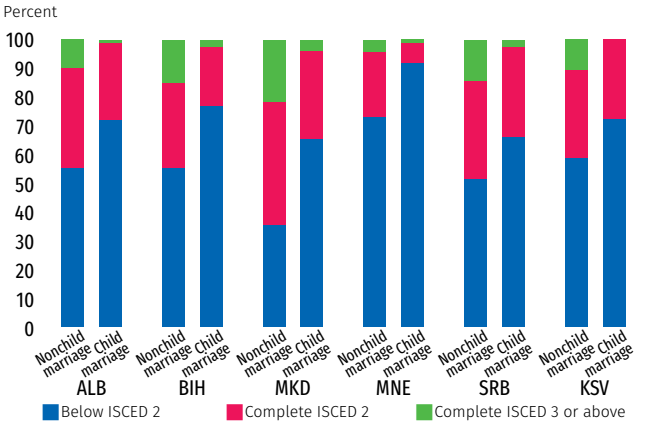
already sufficiently well educated; this is also the case among about 10 percent of male and female respondents in Bosnia and Herzegovina and in Montenegro. Marriage is cited as an important reason for not attending school among Roma females. Though not included in the quantitative survey, qualitative evidence on Serbia shows that many Roma have a general perception that their neighborhoods are unsafe, and this affects their willingness to send children, especially girls, to school (Majumdar and Woodhouse 2019). Physical proximity to schools is not as important as other barriers: according to the 2017 RRS, more than 90 percent of Roma households spend less than 15 minutes traveling to the nearest kindergarten or primary school.[30] Differences in time commuting between rural and urban areas are not large except in Montenegro, where Roma households spend significantly more time traveling to schools in rural areas.

Among women, in addition to cost barriers, child marriage is an important factor affecting enrollment and dropping out; delaying marriage may thus lead to higher educational attainment among women. Among girls and women ages 6–24 who have not finished compulsory education and are not in school, between 11 percent (Bosnia and Herzegovina) and around a third (North Macedonia and Serbia) report that they are out of school because they have married (Table 2.1, panel b). Data on Roma women ages 20–49 also show a strong negative association between child marriage and educational attainment (Figure 2.9).[31]

Roma boys and girls are dropping out of school early (girls earlier than boys), but the mechanisms are starkly different; during focus group discussions conducted among Roma in Serbia, the reasons most frequently given for dropping out of school among girls were child marriage, preserving the capacity of sexual consent, and helping out with household chores; among boys, the most common reason was the desire to join the labor force.[32] Both of these decisions are strongly tied to norms on what is considered proper masculine or feminine behavior, conferring upon these pathways a sense of naturalness and rightness. The road to appropriate masculine identity as described by young men does not pass through the classroom, and young Roma boys prioritize education and learning much less than Roma girls.

Figure 2.9. **Child Marriage Is Correlated with Lower Educational Attainment**

Educational attainment among Roma women ages 20–49



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The figure shows the distribution of educational attainment according to whether the women married early or not. Child marriage refers to women who were first married before age 18.

Several of the interviewees were pulled out of education early to fulfill their household duties or as a precautionary measure to preserve their virginity for marriage. Indeed, one of the stark differences between girls and boys who drop out of school is that, while the former drop out voluntarily, the latter

30 The time it may take to travel to school is not assessed in the case of children who do not attend school; so results between children who attend and children who do not attend cannot be compared.

31 Child marriage refers to child, early, and forced marriage among legally underaged individuals (under age 18) irrespective of gender. Though there is no evidence in the RRS regarding whether females who were first married before age 18 did so involuntarily, child marriages are considered forced if the children are not able to give legal consent.

32 Quantitative evidence in the RRS corroborates these results. Although the most commonly cited reason for dropping out or not attending school is the high cost of education, the next most commonly cited reason is marriage in the case of females and the need to work in the case of males (see Table 2.1).

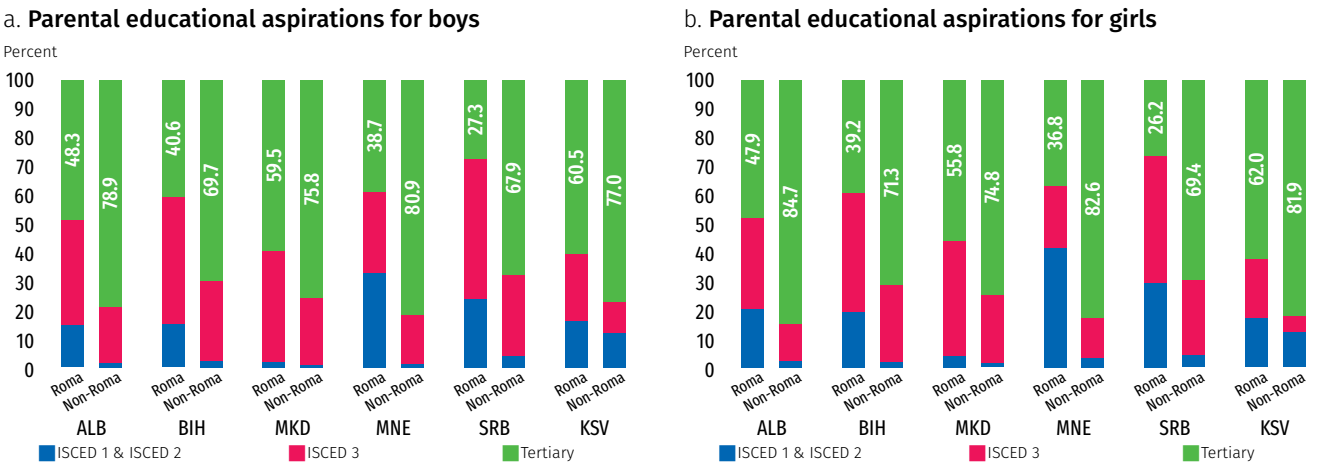
do so involuntarily relatively more often. Hence, young mothers typically aspire to send their girl child to school longer because the mothers were more often forced to drop out, unlike the boys their age, even if both groups dropped out at about the same time. This means that the women in households may be key entry points and positive agents in education interventions.

> *I was thinking in a different way. Ever since I was a child I wanted to work, to make something of my life. When I finished primary school, I was 15, and I wanted to work, to be my own man. And that is exactly what I did.*
>
> —Young Roma man, focus group among men, Kamendin, Belgrade

The qualitative study conducted in Serbia provides a variation on this narrative: in places where there are opportunities for employment, going to school is considered important among women. The study points to the relevance of understanding the influence of norms relied on in response to wider structural constraints by arguing that, in many Roma communities, child marriage, for example, is a frequent outcome because widespread unemployment discourages the pursuit of further education and thus potential opportunities for better jobs. In this sense, expanding the opportunities among young Roma, especially young Roma women, could be a powerful tool for empowering women. If women see that they can have a future outside the home, they are more likely to continue in school and not marry early (Majumdar and Woodhouse 2019).

Evidence from the RRS suggests that parents do not differentiate between boys and girls with respect to the level of education they consider sufficient for their children; in responses, gendered norms tend to disappear. Across the six countries, responses regarding the level of education that is considered sufficient for a child do not differ much depending on whether the child is a boy or a girl; this is the case among both Roma and non-Roma respondents (Figure 2.10). Respondents were equally likely to respond that a girl or a boy should aspire to upper-secondary or tertiary education, suggesting that parents may not necessarily aspire for their daughters to marry young and only fulfill domestic duties, while aspiring for more for their sons.

Figure 2.10. **The Educational Aspirations of Roma for Their Children Are Lower Than the Corresponding Aspirations among Non-Roma**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Data are based on responses from a randomly selected household member ages 16 and above to the question: What do you believe is a sufficient level of education for a child? Answers are differentiated by gender.

However, in general, in responding about the level of education they consider sufficient for a boy or a girl, Roma are significantly less likely than their neighboring non-Roma counterparts to mention tertiary education; nonetheless, the differences in the responses between Roma and neighboring non-Roma are not sufficiently large to explain the observed ethnic gaps in educational attainment. In all countries, the great majority of non-Roma respondents, generally well above 70 percent, said tertiary education is sufficient for a child; among Roma, this was the case among fewer than 50 percent of the respondents in Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, and Serbia. Likewise, in all countries except North Macedonia a significant share of Roma responded that ISCED 1 and 2, that is, up to lower-secondary school, are sufficient education levels for a child; this view was rather rare among non-Roma. Such differences fail to explain gaps in educational attainment. For example, the share of Roma responding that tertiary is sufficient, though lower than the corresponding share among their non-Roma counterparts, is still significant, ranging from between slightly more than a quarter in Serbia to around 60 percent in Kosovo. This starkly contrasts with almost null tertiary education completion rates.

Lower educational aspirations among Roma seem consistent with the lower returns to education among Roma. The lower aspirations of Roma for educational attainment among their children may be a rational preference given that education is not associated with the same rewards among Roma relative to their non-Roma neighbors.[33] This finding is corroborated by the qualitative study in Serbia. Roma focus group participants tended to be disheartened about their educational and employment prospects. They tended to reduce the priority of education because they perceived that their degrees had little value on the labor market and because of a general lack of decent jobs. Most Roma respondents believe that the types of jobs available to them do not require them to pursue education (Majumdar and Woodhouse 2019).

> *"It's all the same," said one respondent. "Here's my husband with his 12 years of school, and it's no use to him. He's a cleaning man with a broom. As if he didn't have any education. I'm a seamstress, so what?"*
>
> —Roma woman, 50–60 years old, interviewed in Kamendin, Belgrade

Also, their expectations about the types of jobs that will be available for their children are similar to what they have themselves achieved. The only exception is Roma returnees, who seem to be more confident in their aspirations for their children (Majumdar and Woodhouse 2019).

Lack of trust in education providers can affect the utilization of education services and could be potentially addressed by using Roma school mediators. The mediator is a valued Roma community member who connects members of the Roma community with service providers.[34] The presence of such counselors who are adequately trained to serve Roma may also increase service utilization and trust in education, but also health care and social protection (World Bank 2014c). For a discussion of related shortcomings and implementation challenges, see Chapter 4.

33 The term aspirations here refers to the hopes of individuals. In this case, it refers to the minimum educational attainment they desire for their children, rather than an ideal attainment level; therefore, it reflects aspirations adjusted for observed outcomes. Also, aspirations are not the same as expectations, which refer to what individuals believe will happen. Normally, aspirations are more hopeful than expectations, perhaps because they are more heavily influenced by social norms (Jacob and Wilder 2010). Tertiary education is associated with important rewards in Albania and Serbia (Figure 2.53); however, across all countries, few Roma reach this level of education. For this reason, many Roma may consider higher education out of reach.

34 This is not limited to schools, but may also include health centers, hospitals, employment offices, and so on.

Across countries, most Roma students report attending integrated schools, although significant proportions attend majority Roma schools, possibly signaling lower quality education; efforts to integrate schools should reflect a consideration of implementation challenges, such as the need to travel long distances to attend an integrated school, which may be a deterrent, especially among Roma girls. A large share of Roma children ages 7–15 in the region still attend schools with a high concentration of Roma students. In 2017, between 10 percent (Serbia) and 40 percent (North Macedonia) of marginalized Roma students across countries reported attending majority Roma schools. In contrast, their non-Roma counterparts are less likely to attend such schools. North Macedonia stands out, with a 28 percentage point gap (only 12 percent of non-Roma attend majority Roma schools), whereas Albania, Bosnia and Herzegovina, and Kosovo exhibit gaps between 7 and 9 percentage points. (There are no statistically significant gaps in Montenegro and Serbia.) A recent World Bank report on Roma points out that, in European Union (EU) countries in Central and Eastern Europe, a high share of marginalized Roma attending majority Roma schools may be a reason for concern given that previous studies indicate a correlation between segregation and lower-quality education, which can be due to poorer infrastructure and lower teacher qualifications (Gatti et al. 2016). The results of an evaluation of a Hungarian school integration program show that ethnic integration in the classroom leads to improved results on standardized reading comprehension tests, has a positive impact on Roma students' noncognitive skills, and does not have negative peer effects on performance among non-Roma students (Kézdi and Surányi 2009). However, efforts to integrate schools should reflect the realization that, if Roma are faced with the need to travel long distances to attend an integrated school, many, especially girls (who are more likely to be exposed to violence on their way to school), may stop attending.

To a certain degree, school segregation patterns may mirror residential patterns. Majority Roma schools are usually located near Roma communities, reflecting the high concentration of Roma population in particular areas or a high incidence of residential segregation. For instance, in a small Roma settlement with a 60 percent Roma and 40 percent non-Roma population, it is likely that the distribution of children in schools is similar. However, there does appear to be some degree of segregation: because the non-Roma neighbors interviewed lived within 300 meters, one would not expect to see significant differences in the share of Roma and non-Roma children attending majority Roma schools, and this is the case in some countries. Neighboring non-Roma are also more likely to report that they take public transport or a private vehicle to school, suggesting that some travel longer distances, perhaps to attend schools that are less likely to be accessible to Roma students. Within schools, however, there is no evidence of further segregation of Roma children in classrooms.

Evidence on the Czech Republic and the Slovak Republic shows that Roma children are disproportionately represented in special schools or schools for disabled children (Gatti et al. 2016); however, RRS evidence does not corroborate this finding for the Western Balkans. According to the RRS, only around 1 percent of marginalized Roma ages 7–15 across countries attended special schools in 2017; the share of non-Roma children attending special schools was at a similar level, showing no inequality between ethnicities.[35] These low numbers can reflect significant underreporting or the fact that the incidence of attendance of marginalized Roma in special schools is generally lower

35 Special schools are schools catered to the special needs of children with disabilities. The questions used in the two surveys to construct this indicator are not worded in the same way, but the differences in wording are subtle; therefore, comparability is likely not affected. In 2011, enrollment in special schools is we identified using the question: "Was the school he/she was/is attending most of the time a special school for disabled?" In 2017, the question was "Which education level are you currently attending?" Children enrolled in special schools are then identified as those respondents answering, "elementary special education," or "secondary special education."

in the Western Balkans than in other areas, such as in Central and Eastern Europe. Nonetheless, qualitative evidence on Serbia suggests that many Roma have been streamed into special schools, mostly because of language barriers, though the government has also adopted measures to reduce such streaming in recent years (Box 2.2). Streaming children who can perform as well as their non-Roma peers in an integrated school system into schools catering for children with mental disabilities may have long-term effects on Roma children.

Box 2.2. **Qualitative Study in Serbia: Evidence on Discrimination in Schooling**

The qualitative study in Serbia revealed that learning gaps in school could be largely explained by using a structural discrimination framework, that is, a set of forces that generate disparities or depress life outcomes without any obvious discriminatory actors. It is, as Powell (2017, 3–4) describes, a "web without a spider." Structural discrimination in schooling must be understood as a process that creates unequal opportunities among Roma children throughout the school life cycle. Roma parents claim that, when their children reached ages 3–5, extreme poverty led them to prioritize paying bills and paying rent rather than bearing the cost of preschool or kindergarten. The distance to the institutions and the cost were major barriers. Even if the parents were to receive subsidies for their children's kindergarten or preschool, the cost of transportation might still represent a barrier. For the few Roma parents who did recognize the value of kindergarten and wanted to send their children, the law became a binding factor: both parents had to be employed for the child to gain admission, which is rare among Roma. Discriminatory practices do not always stem from the school system. Though the few focus group participants who had sent their children to kindergarten felt that the staff or teachers were typically fair and equitable in their treatment of the children, they frequently faced harassment from non-Roma parents.

Roma–non-Roma disparities become starker when the children reach ages 7–14. Even relative to their non-Roma peers who did not attend preschool or kindergarten, Roma children who did not attend preschool or kindergarten were less well prepared because their parents spoke Romani at home, while similar non-Roma spoke the language of instruction, Serbian, at home.

Moreover, several Roma students, unlike their non-Roma counterparts, reported that they were sorted into special schools. Roma children may begin at mainstream schools, but are often transferred to special primary and secondary schools or three-year vocational schools. The formal reasons for such transfers include inadequate knowledge of Serbian, frequent failure to advance to the next grade, and, in the case of returnee children, administrative practices. This is also why occupations such as hairdressing among Roma girls or basic manual labor among Roma boys are frequently mentioned as ideal jobs: these are the skills taught in special and vocational schools.

Roma respondents often said there is a major disconnect between learning and work: unlike their non-Roma counterparts, they strongly believe there are diminishing returns to formal education beyond primary school.

(continued)

(*Box 2.2 continued*)

> *If you know in advance that your child has no chances to succeed in life, you have no grounds on which to send the child to school… If you are disparaged all your life and reduced to some level that belittles you, then this is not for you. Believe me, I have experienced these things.*
>
> —Roma man, age 50–60, focus group among men, Rakovica, Belgrade, February 2, 2018

Several Roma respondents said that, if the best jobs available to them are with cleaning companies or as bin-divers, then a high school degree is of little use, and finishing primary school is sufficient.

> *Here's my husband with his 12 years of school, and it's no use to him. He's a cleaning man with a broom. As if he didn't have any education at all. And I'm a seamstress.*
>
> —Roma woman, age 50–60, interview, Kamendin, Belgrade

In contrast, their non-Roma neighbors believe that completing high school is a minimum requirement, and the more the education beyond that, the better the job prospects.

In this sense, the more restrained educational outcomes among Roma are often rational choices directly stemming from discriminatory practices in the labor force and the lower returns to schooling.

Source: Majumdar and Woodhouse 2019.

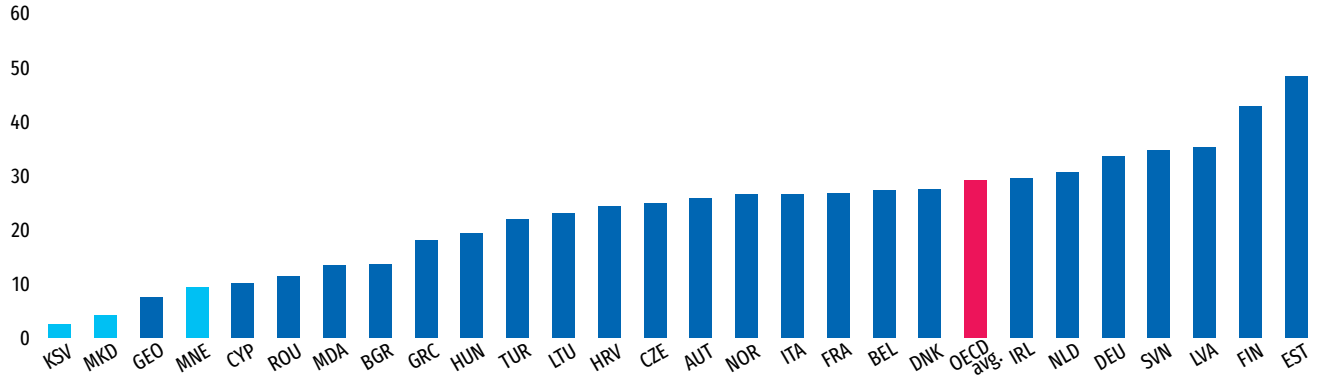
Although there is no measure of educational quality among Roma, it is likely that Roma students do not have access to high-quality education. Most countries in the Western Balkans fare relatively well in international student assessments (such as the Program for International Student Assessment) and exhibit relatively high tertiary gross enrollment ratios; however, there are substantial inequalities, and too many children are not acquiring minimum generic skills. About 77 percent and 71 percent of 15-year-olds in Kosovo and North Macedonia, respectively, scored below the threshold for functional literacy (which measures the ability to read and write). Recent data from the Business Environment and Enterprise Performance Survey show that the share of firms identifying an inadequately educated workforce as a major constraint (26 percent in 2013) is considerably higher in Kosovo than in other Western Balkans countries (Cojocaru 2017). Students from disadvantaged backgrounds tend to show worse performance; the share of resilient students is significantly smaller in the countries of the Western Balkans than in other countries in Europe.[36] in Kosovo, only 2.5 percent of students from disadvantaged backgrounds perform among the top quarter of students on the Program for International Student Assessment tests; in North Macedonia and in Montenegro, the share is only 4.0 percent and 9.4 percent, respectively; in contrast, the average among countries of the Organisation for Economic Co-operation and Development is almost one-third (29.0 percent) (Figure 2.11). Because Roma are more likely to come from disadvantaged backgrounds, this finding suggests that Roma

36 Students are considered resilient if they are in the bottom quarter of the Program for International Student Assessment index of economic, social, and cultural status in the country or economy of assessment, but perform in the top quarter of students across all countries or economies, after accounting for socioeconomic status.

children are highly unlikely to perform well on the Program for International Student Assessment tests.

Figure 2.11. **Only a Small Share of Students from Disadvantaged Backgrounds Perform Well in International Student Assessments**

Resilient students among disadvantaged students, 2015, %



Source: OECD 2016.
Note: A student is classified as resilient if he or she is in the bottom quarter of the Program for International Student Assessment index of economic, social, and cultural status in the country/economy of assessment and performs in the top quarter of students among all countries/economies, after accounting for socioeconomic status.

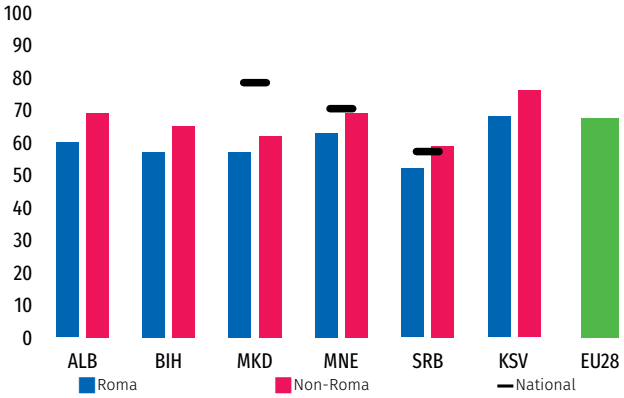
Health

This subsection analyzes several dimensions of health and health care, including self-perceived health status, the unmet need for medical care, health insurance coverage, and the use of preventive health care services.

Poor quality and inequality in access to health care affect the opportunities for the efficient accumulation and use of human capital among vulnerable groups, thereby influencing their ability to generate income. Lifetime earnings are affected by health investment decisions early on because of the impact on health outcomes, but also on other sources of human capital. For instance, early investments in the health and nutrition of children during the first years of life may have a sizable impact on how effective schooling will be in increasing the future cognitive and noncognitive skills of the children.

Figure 2.12. **Self-Perceived Health Status is Poorer among Roma, Despite Being Younger**

Population ages 16+ reporting good or very good health, %



Source: World Bank estimates based on weighted 2017 Regional Roma Survey data and Eurostat.
Note: National data are unavailable on Albania, Bosnia and Herzegovina, and Kosovo.

Self-perceived health is poorer among Roma than among neighboring non-Roma, possibly indicating reduced objective health outcomes among Roma. The RRS does not include data on objective health outcomes, but it does show that, even though the Roma population is younger than neighboring non-Roma in all countries, Roma still perceive poorer average health status than their non-Roma counterparts (Figure 2.12). Aggregated data mask even starker disparities in the perception of health status. Other factors associated with better self-perceived health include education and

employment; higher educational attainment is associated with better self-perceived health, and the employed are more likely to report good or very good health. The lower educational attainment and employment status of Roma may partly explain the poorer self-perceived health status among Roma. Across all countries, RRS evidence also shows that Roma are somewhat more likely to report that they have difficulty performing daily activities because of poor health. Limited or uncertain access to adequate food is also common among Roma communities (Box 2.3).

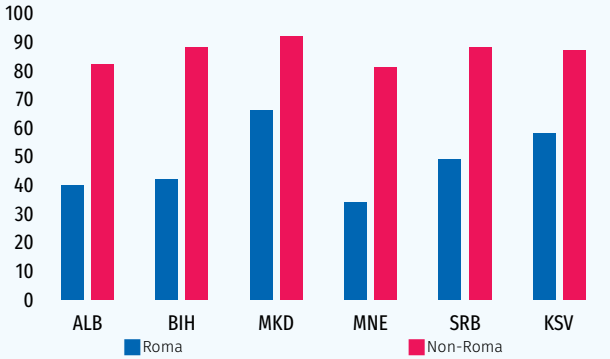
The health status of marginalized Roma may be affected by poor living conditions and social standing, in addition to deficiencies in the access to and use of health care services. Though access to health care services can have an effect on an individual's health status, health status is also the result of an individual's standing in society and is subject to the influence of a large number of societal factors that are beyond an individual's control. It is widely known that income and social standing have a profound effect on health and that the circumstances in which people are born, live, and work affect their health status, even after one controls for access to health care (see Deaton 2002). It is thus important to understand that the health status of Roma involves more than access to health care or

Box 2.3. **Food Insecurity Is Common in Roma Communities**

Food insecurity and hunger are salient problems among Roma; a significant share of households experience food insecurity. A household is food secure if no member went to bed hungry in the previous month because of the cost of food. Among Roma, the incidence of food-secure households varies between 34 percent in Montenegro and 66 percent in North Macedonia (Figure B2.3.1). In sharp contrast, among neighboring non-Roma households, food security ranges from around 81 percent in Albania and Montenegro to 92 percent in North Macedonia. Gaps are especially wide in Albania, Bosnia and Herzegovina, and Montenegro. The RRS data do not allow an assessment of the nutritional quality of the food consumed in Roma households, but the poor food security suggests that the intake of nutrients is inadequate. This can have severe health outcomes later in life, especially if it occurs among children now. Indeed, data from the Multiple Indicator Cluster Surveys show that stunting is three times more prevalent among Roma children under age 5 than among all children in North Macedonia, Montenegro, and Serbia; stunting reaches 27 percent among Roma children in Montenegro. Low birthweight is also three times more prevalent among Roma in Montenegro and Serbia and twice as prevalent in North Macedonia.[a] Lower educational outcomes among Roma may also be partially explained by the lack of access to proper nutrition among Roma children.

Figure B2.3.1 **Food Security Is Lower among Roma**

Food-secure households, %



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

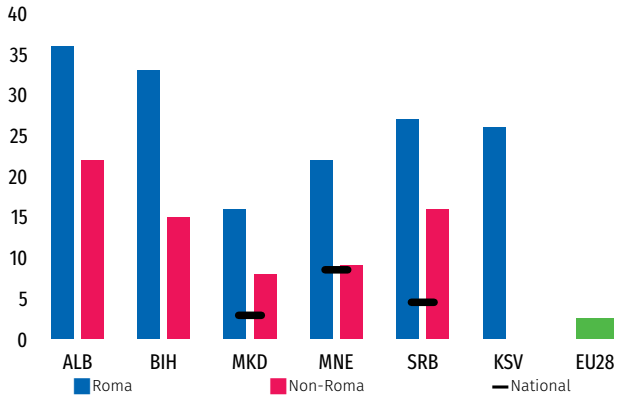
a. MONSTAT and UNICEF 2014; Statistical Office of the Republic of Serbia and UNICEF 2015; UNICEF 2012. Because of differences in sampling, MICS data are not strictly comparable with RRS data.

even access to nutrition. Many additional lifestyle, societal, and environmental factors may affect the health status of Roma and can partly explain why Roma tend to have poorer health outcomes.[37]

Roma are often not able to invest in their own health because of a lack of access to medical care. In all countries, the prevalence of self-reported unmet needs for medical care is high, even among neighboring non-Roma.[38] In countries on which relevant data are available, the unmet need for medical care ranges from only 3 percent in North Macedonia to 9 percent in Montenegro. Among neighboring non-Roma, the share of needs that are unmet is generally greater, but is clearly even more pronounced among Roma, ranging from 16 percent in North Macedonia to 36 percent in Albania (see Figure 2.13, which, for comparison, also shows the situation among the EU28, the current EU membership). The gaps by ethnicity are relatively large and significant, except in Kosovo. Gaps are especially wide in Albania, Bosnia and Herzegovina, and Montenegro, ranging from 13 to 18 percentage points. In the case of Roma returnees, qualitative evidence shows that lack of psychosocial support and of access to counseling services emerges as a reintegration barrier (World Bank 2019).

Figure 2.13. **Roma Are Much More Likely to Report Unmet Needs for Medical Care**

Self-reported unmet need for medical care, % of population ages 16+



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data. National and EU28 data: Eurostat.
Note: National and EU28 data correspond to 2016. Montenegro national data correspond to 2014. National and EU28 data only take into account unmet need because of high cost or lack of availability. Data on Roma and non-Roma also take into account unmet need because of problems with the acceptability of care (fear of doctors, hospitals, treatment; treatment was refused; no official papers; do not like to go because of a feeling there is prejudice).

The accessibility of health services depends on a multitude of factors related to the health system. On the supply side, the design of statutory health care coverage and public benefits packages, the volume and distribution of human resources, waiting times, how individuals are treated within the system (the continuity of care), and the quality of care can affect accessibility (Allin and Masseria 2009).

These factors can be organized around three main types of barriers typically described in the literature: the affordability, availability, and acceptability of health care services. These are related to the affordability of health care and access to health insurance, the availability of health care services (including geographical location), and the acceptability of services, or how appropriate the interactions are that accompany care (Goudge et al. 2009; Hausmann-Muela, Muela Ribera, and Nyamongo 2003). Obstacles such as lack of information and knowledge or fear, language barriers, and discrimination are considered part of the acceptability barrier.

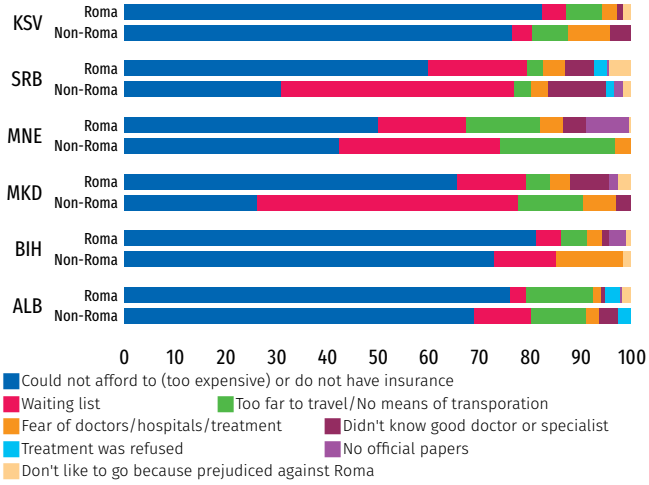
37 The RRS does not include objective measures of health outcomes. However, self-perceived health status suggests that Roma may have inferior objective health outcomes. This is corroborated by data on objective outcomes (such as stunting and child mortality) from the Multiple Indicator Cluster Surveys.

38 One relatively simple tool for monitoring access to health care is the direct questioning of individuals on whether there was a time when they needed health care, but did not receive it, or whether they had to decline health care. This type of question is usually included in EU Statistics on Income and Living Conditions (EU-SILC) surveys and was also incorporated in the 2011 and 2017 RRS rounds. In the RRS, the self-reported unmet need for medical care is derived using the assessments of individuals—in this case, randomly selected household members ages 16 or over—on whether they needed examination or treatment for a specific type of health care issue during the previous 12 months, but did not have it or did not seek it because of one of the following three reasons: affordability (service is too expensive), availability (waiting list; too far away, or travel is too expensive), and acceptability (fear of doctors, hospitals, treatment; treatment was refused; no official papers; do not like to go because of a feeling there is prejudice). Eurostat only considers affordability and availability as reasons for unmet needs.

Affordability is the single most important self-reported barrier contributing to health inequalities. An examination of the role of these three types of barriers in health inequalities reveals that the main reason Roma report having unmet needs for medical care is lack of affordability. It is likely that marginalized Roma face a combination of two or more of the access barriers distinguished above, but some barriers seem to be affecting them more. Across countries, the majority of Roma report high costs (or lack of health insurance coverage) as the reason for their unmet needs in medical care, and they are more likely to report this reason than their non-Roma neighbors (Figure 2.14). This is common in low- and middle-income countries, in which patients often either do not seek care or do so only if they have access to funds, thus affecting the continuity of care.

Figure 2.14. **Roma Are More Likely to Cite High Costs or Lack of Health Insurance Coverage as the Reason for Unmet Needs in Health Care**

Reasons for the self-reported unmet need for medical care, %

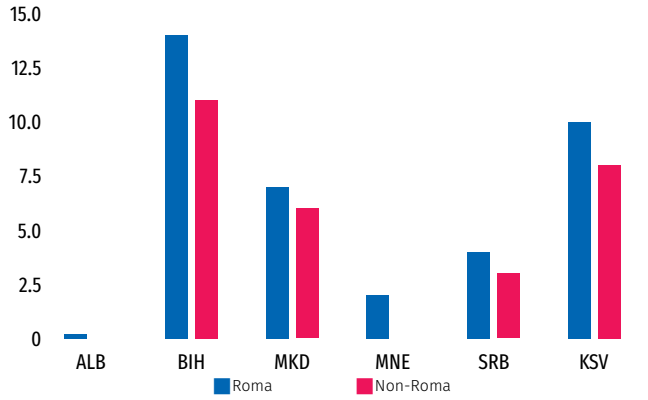


Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

The availability of health care centers does not seem to be a major barrier to access to health care services. Across countries, the vast majority of Roma report that there is a health care center in their neighborhood, though there is a small gap with respect to neighboring non-Roma. The share of Roma reporting that there is no health care center available nearby ranges from 0 percent in Albania to 14 percent in Bosnia and Herzegovina. Though there appears to be a gap between Roma and neighboring non-Roma, it is small (Figure 2.15). Nonetheless, such a gap is unexpected given the geographical proximity between the two groups. This may signal a lack of awareness on the part of Roma. Across countries, most Roma also report they are within walking distance of a health care center and, on average, it takes no more than 23 minutes to reach the nearby center (across all means of transport, including walking, public transport, or automobile). Thus, the availability of a nearby health center does not seem to be a major barrier in access to health care services among Roma. However, Bosnia and Herzegovina and Kosovo stand out given that 10 percent or more of Roma lack a health center in their neighborhood in these countries. Likewise, access to a health center does not imply access to secondary care, and there may also be shortages in health service inputs, such as staff, drugs, and equipment, which often means that appropriate primary care is not necessarily available either. In some countries, the share of Roma also reporting they have not received needed care because they are on waiting lists is significant; the share is 18 percent in Montenegro. The share is even higher among neighboring non-Roma, presumably because, given the

Figure 2.15. **Most Roma Report There Is a Health Care Center Nearby**

Households reporting the lack of a health care center nearby, %



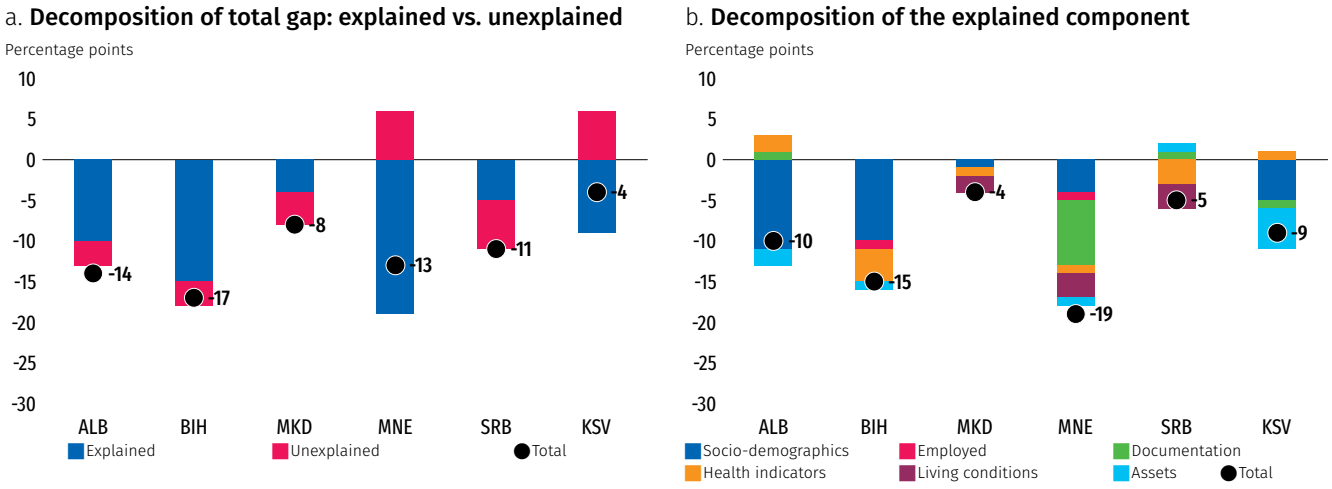
Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: In Albania and Montenegro, all non-Roma households report the existence of health center nearby.

need for care, they are more likely to join waiting lists given that the economic costs of accessing care is less of a barrier among them.

Except in North Macedonia and in Serbia, most of the gap in the self-reported unmet need for medical care can be explained by differences in individual and household characteristics between Roma and neighboring non-Roma, suggesting that discrimination and other unobservable factors, such as social norms, play a small role. In most countries, a large share of the gap in unmet health needs can be explained by individual and household characteristics: sociodemographic characteristics, health indicators (including health insurance coverage), household living conditions, lack of documentation, and household assets. Indeed, in the countries with the largest gaps, such as Albania and Bosnia and Herzegovina, the component of the gap explained by differences in characteristics accounts for 10 and 15 percentage points, representing around 75 percent and 85 percent of the total gap, respectively (Figure 2.16, panel a). The unexplained component, which may be attributed to unobserved variables affecting access to medical care, such as fear of doctors or mistrust in the health care system, as well as possible discrimination against the Roma population, is relatively small in all countries except North Macedonia and Serbia, where it corresponds to more than 50 percent of the total gap. Though few Roma declare they did not visit a doctor or medical specialist when they needed attention because of prejudice against Roma, this does not imply that the health care system does not discriminate against Roma.[39] Among Roma, stigma is often considered the norm and is deeply internalized and accepted. This has resulted in the normalization of discriminatory practices by service providers. (See Box 2.2 for mechanisms of discrimination in schooling and Box 2.6 for mechanisms in labor markets.) Across countries, a significant share of Roma who had accessed private or public health services in the previous five years did report they were discriminated against at some point because of their ethnicity. The shares range from 16 percent in Kosovo to 37 percent in Montenegro.[40]

Figure 2.16. **In Most Countries, a Significant Share of the Gap in Unmet Needs Is Explained by Sociodemographic Factors, 2017**

Blinder-Oaxaca decomposition of the percentage point gap in self-reported unmet needs for medical care between Roma and non-Roma neighbors



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Variables included in each category are as follows: Sampling variables: urban residence and Roma concentration in settlements (greater than 40 percent). Sociodemographic variables: gender, age, household size, marital status, educational attainment, share of children relative to share of working-age household members, share of the elderly relative to the share of working-age household members, and indicators on the household head. Employment status: employed during the reference period of the 2017 RRS. Documentation: possession of an identity card and status as an internally displaced person (IDP). Health indicators: self-reported health status, use of preventive health care services, and health insurance coverage. Living conditions: number of rooms in the dwelling, access to public sewerage, and access to toilet inside the dwelling. Assets: computer, Internet, radio, power generator, and car.

39 At most, 3 percent of the Roma population self-reporting unmet needs for medical care in North Macedonia say that prejudice against Roma is the reason for the unmet needs.

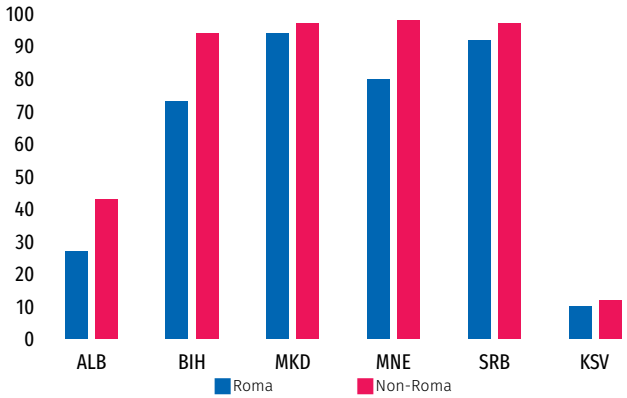
40 World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

In many countries, sociodemographic characteristics contribute the most to the explained component of the gap in unmet needs for medical care between Roma and neighboring non-Roma; in Montenegro, status as internally displaced persons (IDPs) is important. In Albania, Bosnia and Herzegovina, and Kosovo, the explained component of the gap in unmet health needs is mainly driven by the following sociodemographic variables: gender, age, household size, marital status, and educational attainment. Household living conditions, such as the number of rooms in the dwelling, access to public sewerage, and access to a toilet inside the dwelling, are important in explaining the gap in North Macedonia, Montenegro, and Serbia. Self-perceived health status and health insurance coverage are also relatively important in explaining the gap in Bosnia and Herzegovina and Serbia. At lower levels of health insurance coverage, the probability of reporting unmet needs for medical care increases. This supports the finding that the main reason for unmet needs in medical care is affordability. IDP status is a fundamental explanatory factor of the gap in Montenegro. This is because a much larger share of Roma hold IDP status in Montenegro (35 percent among Roma versus 4 percent among non-Roma) than in any other country in the region, and these individuals are much more likely to have unmet health care needs after one controls for other factors, such as health insurance coverage (see below).

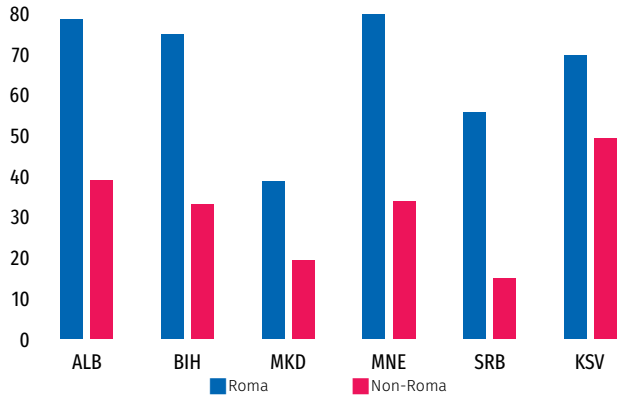
In line with the most common reason cited for unmet needs for medical care, Roma are less likely to have health insurance and much more likely to report that they cannot afford medicines needed by household members. In all countries, Roma are less likely to have access to health insurance. The size of the coverage gap is larger in Albania, Bosnia and Herzegovina, and Montenegro (Figure 2.17, panel a). This is so despite efforts to improve access to health care among Roma. For example, in Serbia, the government decided that Roma are entitled to health care even if they are unemployed or are without a permanent residence, which are both more likely among Roma. Recently, 75 health mediators were employed to improve the communication between health care personnel and Roma. In North Macedonia and, since 2017, in Montenegro, health insurance is available for all residents. Overall, health insurance coverage is low in Albania and Kosovo, though gaps persist between Roma and their non-Roma neighbors. However, the gap in the affordability of health care is wider in the case of the affordability of medicines needed by household members. In all countries except North Macedonia, the majority of Roma report that they cannot afford medicine, and, in all countries, the share of non-Roma who report this is considerably smaller. The widest gaps are observed in Albania, Montenegro, and Serbia (Figure 2.17, panel b).

Figure 2.17. **Health Insurance Coverage and the Cost of Drugs Are Issues among Roma**

a. **Health insurance coverage, % of population ages 16+**



b. **Percent of population saying they cannot afford drugs**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Percentage of population reporting they cannot afford drugs is based on responses of household heads.

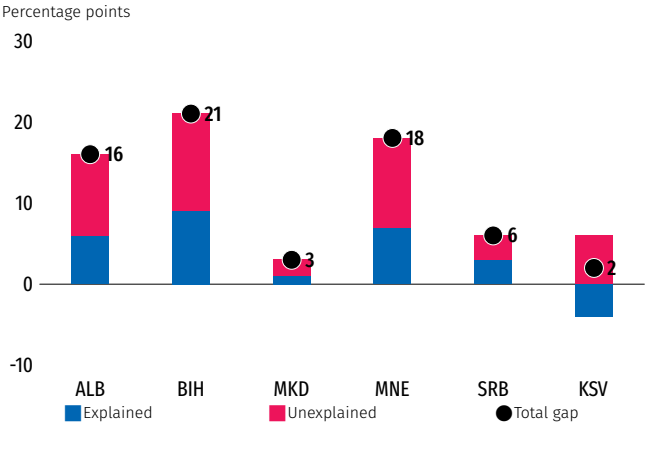
The low health insurance coverage in Kosovo is explained by the fact that, in Kosovo, unlike other countries, there is no mandatory health insurance. This is the reason for the low rates of health insurance reported among both Roma and their non-Roma neighbors. (Only around 10 percent of either group has health insurance coverage.)

Though differences in individual and household characteristics help explain part of the gap in health insurance coverage in all countries, a significant part of the gap is unexplained, pointing to the importance of discrimination, but also other factors such as cultural differences, differences in beliefs and attitudes about health care, or differences in access to information. On average, across all countries, the explained component represents a smaller proportion of the total gap than the unexplained component, meaning that the gap in health insurance coverage is mostly unexplained or attributable to differences in the returns to individual and household characteristics. In the countries with the largest gaps, such as Albania, Bosnia and Herzegovina, and Montenegro, the explained component accounts for less than 45 percent of the total gap, while, in Serbia, it accounts for 50 percent. In Kosovo, the explained component of the gap is negative (–4 percentage points), implying that the individual and household characteristics of Roma should lead to lower health insurance coverage (see Figure 2.18, panel a). The unexplained component of the gap may be related to discrimination (whether intentional or not) or unobserved characteristics that are correlated with the demand for medical care, including local variations in the supply of health care providers, cultural and linguistic differences, perceptions of bias or the poor quality of health services, differences in beliefs and attitudes about health care, and lack of information on the health system. For instance, non-Roma neighbors may be more well informed about health care services and the associated costs, or they may be more concerned about health risks and therefore anticipate greater need for health care and be more likely to demand health insurance.

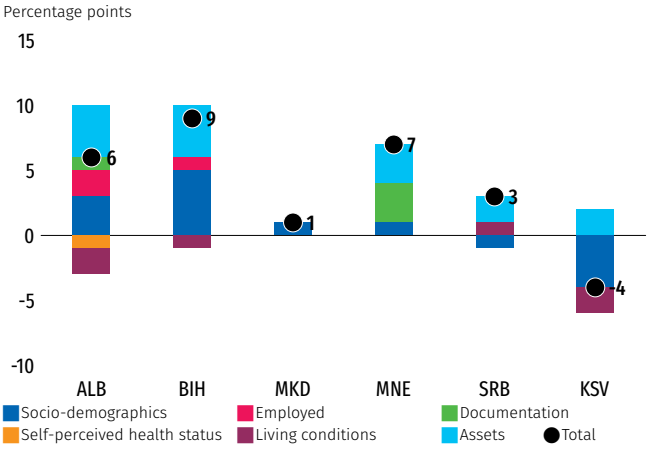
Figure 2.18. **A Large Part of the Gap in Health Insurance Coverage Is Unexplained, 2017**

Blinder-Oaxaca decomposition of the gap in health insurance coverage between Roma and their non-Roma neighbors

a. **Decomposition of the gap, explained vs. unexplained**



b. **Decomposition of the explained component**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Variables included in each category are as follows: Sampling variables: urban and Roma concentration in settlements (greater than 40 percent). Sociodemographic variables: gender, age, household size, legal marriage, educational attainment, share of children relative to the share of working-age household members, share of the elderly relative to the share of working-age household members, and whether the individual is the household head. Employed: employment during the reference period of the 2017 RRS. Documentation: possession of an identity card and IDP status. Self-reported health status: whether the individual reports good or very good health. Living conditions: number of rooms in the dwelling, access to piped water inside the dwelling, and access to a toilet inside the dwelling. Assets: computer, Internet, color television, washing machine, and car.

In most countries, the explained component of the gap in health insurance coverage between Roma and their non-Roma neighbors revolves mostly around sociodemographic characteristics, employment status, and household asset holdings; in Montenegro, IDP status is important. Sociodemographic variables, including gender, age, household size, legal marriage, and educational attainment, are important explanatory factors of the explained gap in health insurance coverage, especially in Albania, Bosnia and Herzegovina, and Kosovo. Moreover, health insurance coverage is highly correlated with educational attainment: more highly educated individuals are more likely to participate in the labor market and, consequently, be formally employed and receive higher earnings. Employment status is particularly important in explaining the gap in health insurance coverage in Albania and in Bosnia and Herzegovina.[41] Furthermore, household assets, including computers, the Internet, washing machines, color televisions, and cars, contribute to the explained portion of the gap in all countries except North Macedonia. As is also the case in the unmet needs for health care, IDP status is an important explanatory factor of the gap in health insurance coverage in Montenegro, where IDPs are less likely to have health insurance (see above). This reflects the high incidence of IDPs among Roma in Montenegro.

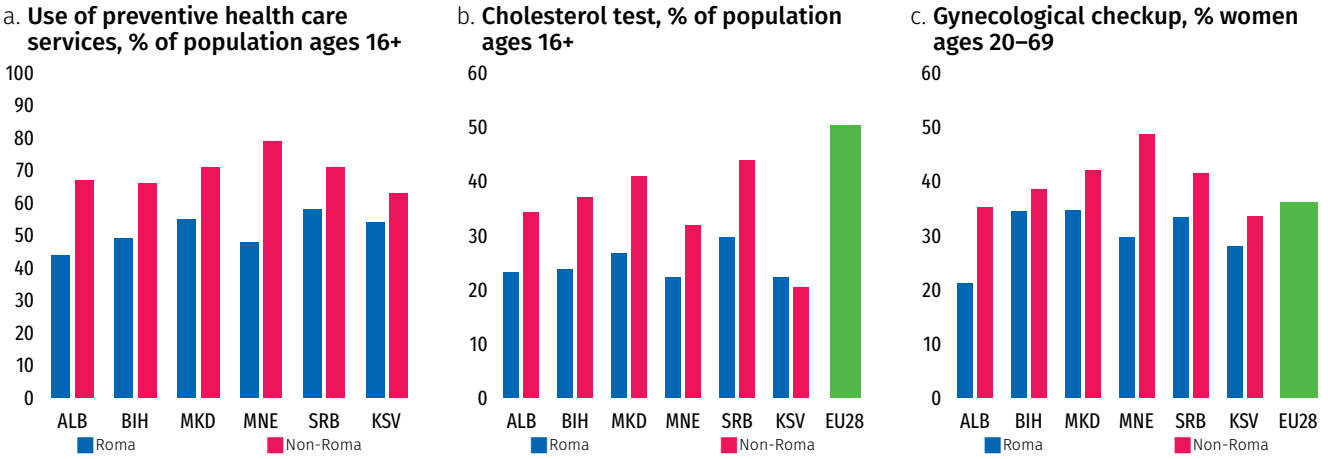
In Montenegro, although closing the gap in access to identity cards does not necessarily mean closing the gap in health insurance access, identity cards are important. Among Roma, possession of an identity card significantly improves the chances of obtaining health insurance; this is not the case among non-Roma. This is because the only eligibility requirement for enrollment in the social health insurance scheme in Montenegro is residency. Thus, the relatively limited distribution of identity cards among Roma explains some of the gap in health insurance coverage. Only 83 percent of Roma ages 16 or above had identity cards in 2017 versus 96 percent of neighboring non-Roma; no other country has such a large gap in the coverage of identity cards.[42] The gaps in health insurance coverage and in self-reported unmet needs for medical care are similar in magnitude, and there is a strong and positive correlation between possession of an identity card and access to health care. Across all other countries, small gaps in the coverage of identity cards are also observed, and, in Albania, though there is a relationship between possession of an identity card and access to health insurance, the distribution of identity cards only explains part of the health insurance gap.

Not only do Roma seem to have restricted access to needed health services relative to neighboring non-Roma, their use of preventive health services is also limited; they are less likely to report that they have used preventive health services in the previous year than their non-Roma neighbors; financial costs are the most important barrier. Across countries, around 50 percent of Roma ages 16 and above report that they have used preventive health care services in the previous 12 months.[43] This contrasts with a higher rate of use among neighboring non-Roma, which ranges from 63 percent (in Kosovo) to 79 percent (in the Montenegro) (Figure 2.19, panel a). A look at only cholesterol screening suggests that the use of preventive care among neighboring non-Roma is lower than the EU28 average (Figure 2.19, panel b); there are also gaps between Roma and their non-Roma neighbors in all countries, with the exception of Kosovo, where the Roma–non-Roma gap disappears. The low coverage of health insurance in Albania and Kosovo does not result in the low use of preventive health care services: the use of these services in Albania and Kosovo is similar to that found across the region. Cost is always the leading factor behind gaps in the use of preventive health services. Regression estimates show

41 The share of Roma among the employed in the total population in Bosnia and Herzegovina is the lowest in the region (see Figure 2.26).
42 Gaps in other countries range from 2 to 6 percentage points. For the coverage of identity cards, see Figure 2.50.
43 Preventive health services include a dental checkup, an x-ray, ultrasound or other scan, cholesterol test, or heart checkup.

that, among Roma, after one controls for several socioeconomic and household characteristics, having health insurance does increase the likelihood of using preventive care services in all countries except Kosovo. This is likely because, in most countries, individuals covered by health insurance are exempt from copayments for particular categories of health services, such as preventive care.[44]

Figure 2.19. **Use of Preventive Health Care Services is Lower among Roma**



Source: World Bank estimates based on weighted 2017 Regional Roma Survey data and Eurostat.
Note: EU28 data are from 2014. The panels show the share of respondents reporting that they have accessed preventive services in the previous 12 months. Data based on the RRS are based on a randomly selected household member. Preventive health care services include a dental checkup, an x-ray, ultrasound or other scan, cholesterol test, or heart checkup among individuals ages 16+.

In three of the six countries, Roma females are more likely to access preventive care than Roma males; a similar gender gap is evident among non-Roma and may be caused by women's generally greater demand for health care, partly arising from their need for reproductive health care services.[45] There are gaps between Roma women and their non-Roma neighbors in the coverage of gynecological checkups among women ages 20–69 across all countries, but especially in Albania and Montenegro; gynecological checkups among non-Roma neighboring women across all countries are similar to or higher than the EU28 average of 36 percent. Gynecological checkups among Roma women are especially low in Albania, where only 21 percent of Roma reported they had used the service in the previous 12 months (Figure 2.19, panel c).

In almost all countries, a large share of the gap in the use of preventive health care services is attributable to differences in individual and household characteristics, that is, endowments, between Roma and neighboring non-Roma, except in Bosnia and Herzegovina, where the unexplained component accounts for a higher share of the gap. The large gap in Albania (24 percentage points) is almost completely explained by differences in observed characteristics. In Montenegro, 29 of the 31 percentage points in the gap are explained by differences in observed characteristics, representing more than 90 percent of the total gap. In North Macedonia, the explained gap accounts for 87 percent of the total 16 percentage point gap. Bosnia and Herzegovina is the only country where the unexplained component of the gap accounts for a higher proportion of the total gap, reaching 56 percent (Figure 2.20, panel a). These findings lead to the conclusion that, overall, except in Bosnia and Herzegovina, there are not many important unobservable characteristics involved in determining the gap. Some of the unobservable characteristics may include awareness of preventive care services, as well as other access barriers such as the general relationship that Roma may have with the health care system.

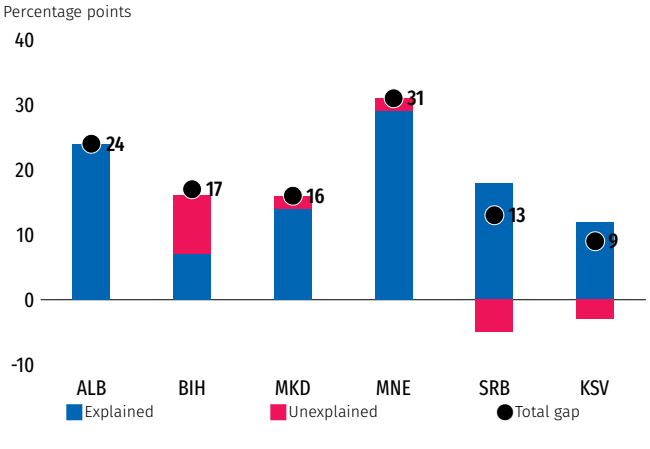
44 However, in North Macedonia, preventive health care services are often covered across the entire population regardless of health insurance coverage.
45 This gender gap among Roma exists in all countries, but the difference is only statistically significant in Albania, North Macedonia, and Serbia. (For gender-disaggregated data, see Appendix C, Table C.6.) The indicator also includes adolescents ages 16–17.

The main factors driving the explained gap in the use of preventive health care services between Roma and neighboring non-Roma are sociodemographic characteristics, household living conditions, and household asset holdings. A large share of the explained gap is attributable to differences in sociodemographic characteristics between Roma and non-Roma, particularly differences in gender and in educational attainment. This is true in most countries, but especially in Kosovo, Montenegro, and Serbia. Household living conditions, including number of rooms in the dwelling, access to public sewerage, and access to a toilet inside the dwelling, are also important determinants of the explained gap in almost all countries, but especially in Albania. Household asset holdings, including computer, Internet, color television, power generator, and washing machine, appear to be important explanatory factors of the explained gap in Albania, North Macedonia, and Montenegro. Health indicators, particularly health insurance coverage, also contribute to the explained gap in Bosnia and Herzegovina and in Montenegro (Figure 2.20, panel b). Several studies have shown the positive impact of health insurance coverage on the use of health care services. Because health insurance reduces the effective price of health care, the insured tend to use more health care intensively and to resort more to preventive care, such as diagnostic exams and routine checkups (Anderson, Dobkin, and Gross 2010; Ayanian et al. 2000; Shane and Trivedi 2012).

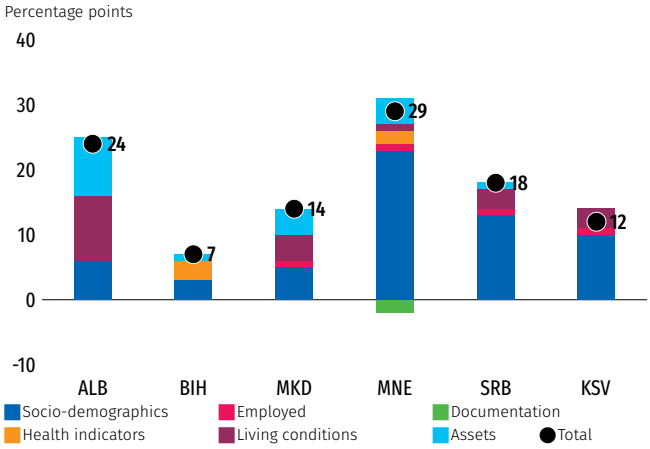
Figure 2.20. **Much of the Gap in the Use of Preventive Health Care Is Caused by Differences in Individual and Household Characteristics between Roma and Neighboring Non-Roma, 2017**

Blinder-Oaxaca decomposition of the percentage point gap

a. **Decomposition of total gap: explained vs. unexplained**



b. **Decomposition of the explained component**



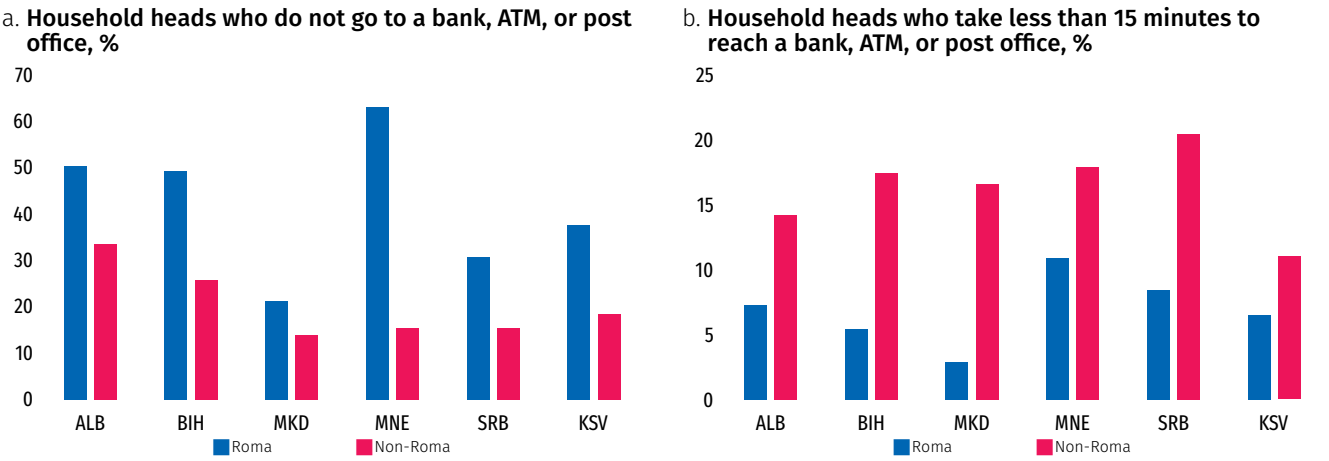
Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Variables included in each category are as follows; Sampling variables: urban and Roma concentration greater than 40 percent. Sociodemographic variables: gender, age, household size, legal marriage, educational attainment, number of children over the number of working-age household members, share of the elderly over the working-age members, and household head. Employed: refers to employment during the reference period of the 2017 RRS. Documentation: identity card and IDP status. Health indicators: self-perceived health status, health insurance coverage. Living conditions: number of rooms in the dwelling, access to public sewerage, and access to a toilet inside the dwelling. Assets: computer, Internet, power generator, washing machine, and color television.

Access to Other Productive Assets: Financial Assets, Housing, Land, Information, and Networks

This subsection examines the extent of access to productive inputs, such as financial and physical capital, land, housing, information and networks, which can be an important constraint on economic opportunity, including productive entrepreneurship among marginalized Roma.

The extent of the use of financial services among marginalized Roma appears to be limited, and physical distance may be limiting access. Studies on other countries have looked at the role of financial inclusion and microcredit as a tool to promote self-employment among Roma (World Bank 2012). They show that microcredit is not expected to raise self-employment rates substantially unless significant financial gaps are addressed. In all six countries, relative to their non-Roma neighbors, a much larger share of Roma household heads report that they never go to a bank, automated teller machine (ATM), or post office.[46] Although Montenegro stands out because of the larger number of ATMs and commercial bank branches per adult (Box 2.4), the share of Roma declaring that they do not use ATMs, banks, or post offices is much larger in Montenegro than in other countries. In Montenegro, the gap between Roma and their non-Roma neighbors is wide (63 percent among Roma report they do not use these services versus 34 percent among non-Roma neighbors) (Figure 2.21, panel a). If Roma do use banks, ATMs, or post offices, a much lower share report that it takes them less than 15 minutes to reach the location (Figure 2.21, panel b). Roma report they are more likely to walk rather than taking public transport or a personal vehicle. Lower access to these modes of transport may hinder the ability of Roma to reach financial services.

Figure 2.21. **Roma Are More Likely to Declare They Never Use Financial Services**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Despite high ownership rates, insecure property rights limit the productive use of land endowments, and Roma are disproportionately affected. Limited access to land and other real estate can make obtaining credit more difficult because of the lack of collateral. RRS data suggest that dwelling ownership among Roma is relatively high in most countries, ranging from 76 percent in Bosnia and Herzegovina to 90 percent in Kosovo, although less than half of Roma households in Montenegro owned their dwelling in 2017 (Figure 2.22, panel a). High ownership rates in North Macedonia and in Serbia are consistent with national estimates based on recent EU Statistics on Income and Living Conditions (EU-SILC) data (90 percent and 86 percent among the overall population, respectively).[47] Despite the high ownership rates, insecure property rights may constrain the ability of Roma households to use land productively. Some countries seem to perform better than others in terms of secure property rights, but, relative to other countries, the performance is generally not good. The scores of Albania, Bosnia and Herzegovina, and Serbia on overall property rights on the international property rights index are among the lowest

46 Data are not available on the use of financial products such as checking or savings accounts or credit cards. The use of banking services as a proxy in the evaluation also includes post offices because banking services alone cannot be separated out in the survey responses.

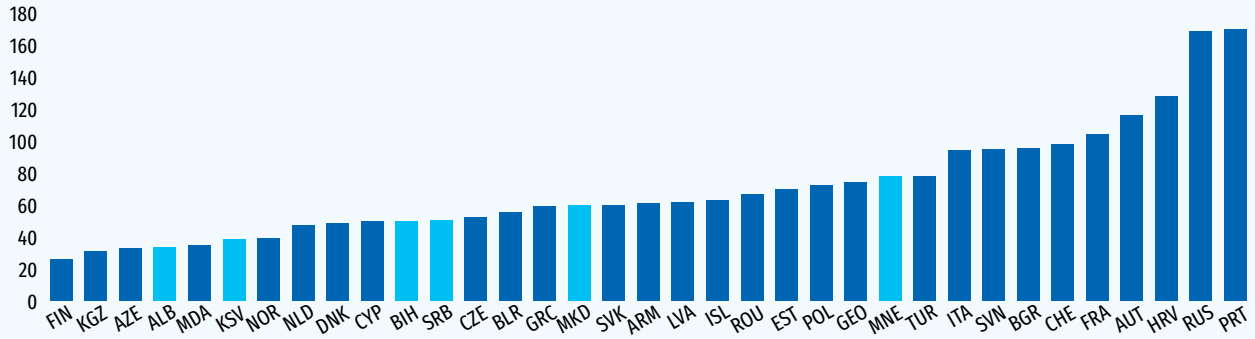
47 The EU-SILC instrument is the EU reference source for comparable statistics on income, social inclusion, and living conditions in Europe. It includes comparable multidimensional microdata on income, poverty, social exclusion, housing, labour, education, and health.

Box 2.4. **Financial Access in the Western Balkans Is Generally Low**

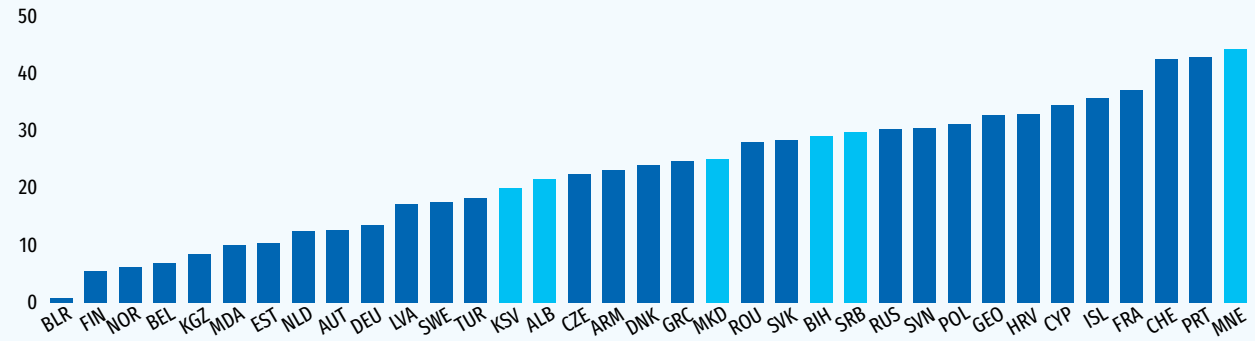
The physical outreach of the retail networks of financial institutions in the six Western Balkan countries, particularly in Albania and Kosovo, lags other countries in Europe and Central Asia. Financial inclusion may be determined by the extent of financial access in the country or in areas where the Roma live, as well as the use of financial services by these populations. Figure B2.4.1 shows that there are fewer ATMs and branches of commercial banks per adult in Albania and Kosovo than in other Western Balkan countries and other countries in the region. There are fewer than 40 ATMs per 100,000 adults in Albania and Kosovo, while, in Montenegro, there are about 80. National outreach can, however, hide key rural-urban gaps, and Roma settlements may be at a disadvantage. (Data on municipalities or settlements are not available.)

Figure B2.4.1 **Outreach of Financial Institutions Networks in the Western Balkans Lags Other Countries in Europe and Central Asia, with Kosovo and Albania Being the Lowest**

a. **Number of ATMs per 100,000 adults, %**



b. **Number of branches of commercial banks per 100,000 adults, %**



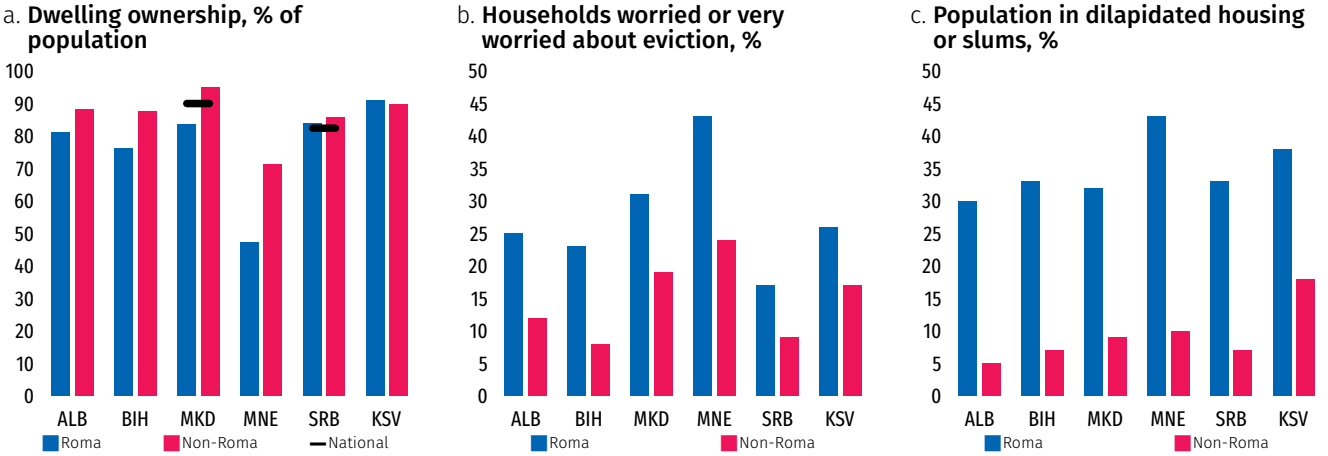
Source: 2017 Financial Access Survey, International Monetary Fund.

in the world (ranking 102, 107, and 101, respectively, among 125 countries).[48] Montenegro ranked slightly better: 98 in the global rank and 19 in the Europe and Central Asia region (see Appendix E, Table E.8). The ranking on physical property rights is also low. Roma are disproportionately affected, since many Roma live in informal settlements. It is highly likely that many Roma who report in the RRS that they are homeowners do not have legal title and the relevant documentation. This assessment is based on the much larger share of Roma who report that they are worried or very worried about being evicted

48 The index was developed to serve as a barometer on the state of property rights in all countries. It covers the legal and political environment, physical property rights, and intellectual property rights. See the website, International Property Right Index 2018, at https://www.internationalpropertyrightsindex.org.

from their homes (Figure 2.22, panel b). The shares are generally higher than the shares of those who do not report they own their homes. Lack of ownership has consequences not only for asset ownership, but also for the ability to generate income. A significant share of Roma also report that, during their searches for a house or apartment to rent or buy, they have been discriminated against because of their ethnicity by people working in public housing agencies or by private landlords or private agency personnel.[49]

Figure 2.22. **Roma Are Less Likely to Own Their Homes, More Likely to Live in Substandard Housing, and More Likely to Report that They Fear They Will Be Evicted from Their Homes**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data. National data on dwelling ownership from Eurostat based on EU-SILC Surveys 2016, available only for North Macedonia and Serbia.

In addition to the insecurity of tenure, substandard housing and inadequate access to services also represent problems affecting at least a third of Roma. Roma are more likely to live in substandard housing, suggesting the asset they own, even if legal, is much lower in value. Across countries, at least one-third of Roma live in dilapidated housing or slums (Figure 2.22, panel c).[50] The shares range from 30 percent in Albania to 43 percent in Montenegro. The contrast with the non-Roma living in the vicinity is stark. In general, less than a tenth of this population lives in dwellings that are characterized as dilapidated by survey enumerators. The RRS data suggest that, despite the close geographical proximity between the two groups surveyed (non-Roma neighbors generally live around 300 meters from surveyed Roma), there are striking differences in the quality of housing and the surrounding infrastructure.

Additional evidence of the inferior quality of housing among Roma is the lower rate of access to basic services among Roma, which also has consequences for human capital accumulation. Roma are less likely than their non-Roma neighbors to have access to essential services (Figure 2.23). Significant gaps are found in all services in all countries. Access to electricity is nearly universal in Western Balkan countries.[51] However, access to electricity among Roma ranges from only 84 percent in Albania to 93 percent in North Macedonia. A similar picture emerges on access to piped water inside the dwelling among Roma. Two countries stand out. In Albania, less than one-half of Roma have access to this essential service versus 89 percent of neighboring non-Roma, but this is the case of only three-

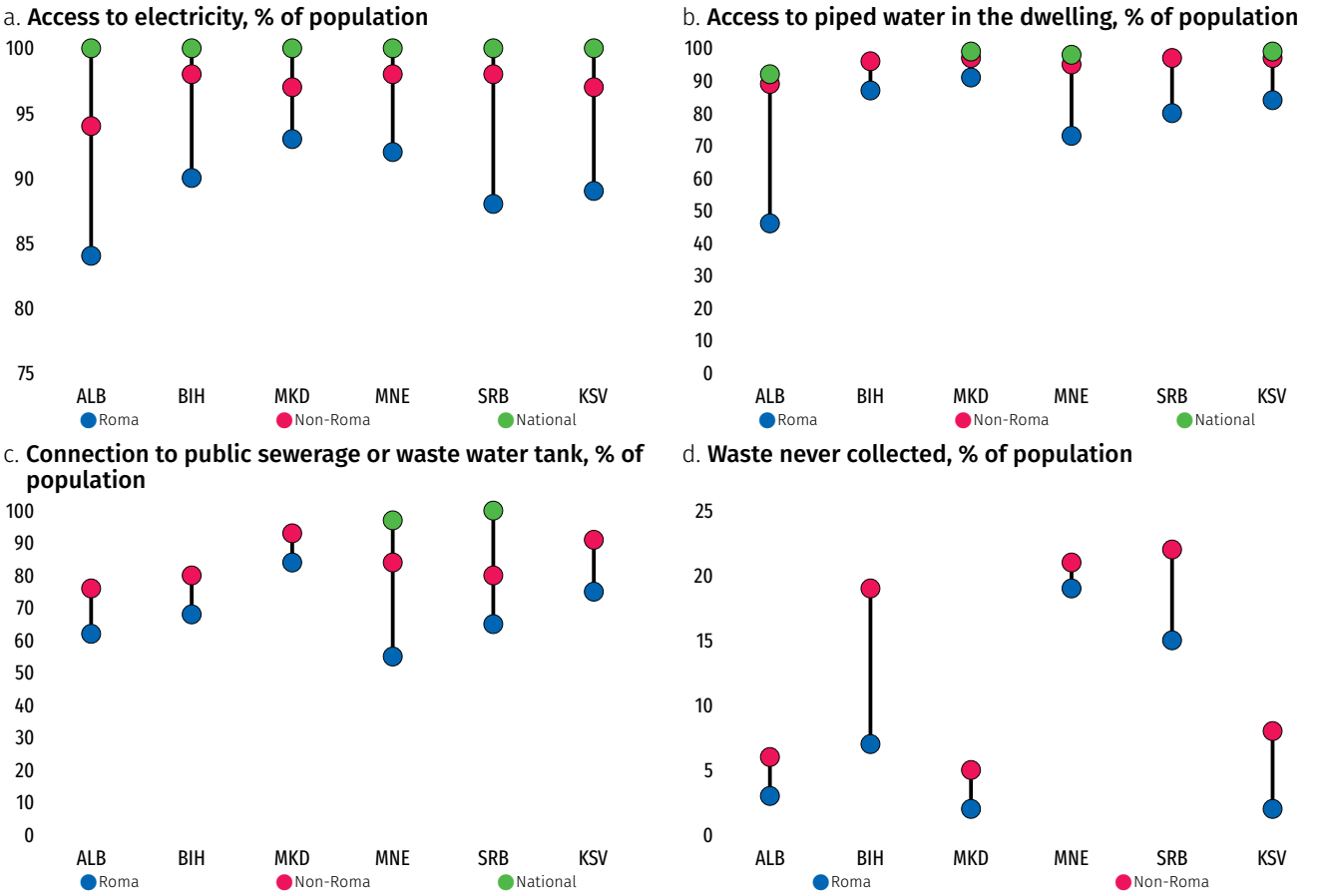
49 The shares range from around 17 percent in Kosovo and North Macedonia to 25 percent in Montenegro and from 35 percent to 42 percent in Albania, Bosnia and Herzegovina, and Serbia.

50 This is based on an external evaluation of the interviewer and is thus a subjective measure. This can be combined with more objective indicators of housing conditions, such as access to safe water, sanitation, and overcrowding, to obtain a fuller picture.

51 The indicator is the percentage of population with access to electricity in 2016 (World Development Indicators data).

fourths of Roma in Montenegro. Similar to electricity, while access to piped water among non-Roma is close to national estimates, Roma lag. Connection to public sewerage or waste water tanks is also low among Roma, ranging from 55 percent in Montenegro to 84 percent in North Macedonia. Insufficient sanitation conditions among Roma are evident in the smaller share who report they have a toilet in the dwelling. While the majority of Roma do have access to waste collection, significant gaps relative to Roma are still visible, especially in Bosnia and Herzegovina, Kosovo, and Serbia. Lack of access to essential services suggests the surrounding neighborhood infrastructure may be inferior. This may also hinder the ability of Roma to accumulate human capital through the deleterious effect on well-being, including health, early childhood development, and even school performance and attendance.[52]

Figure 2.23. **Roma Are Less Likely to Have Access to Essential Services**



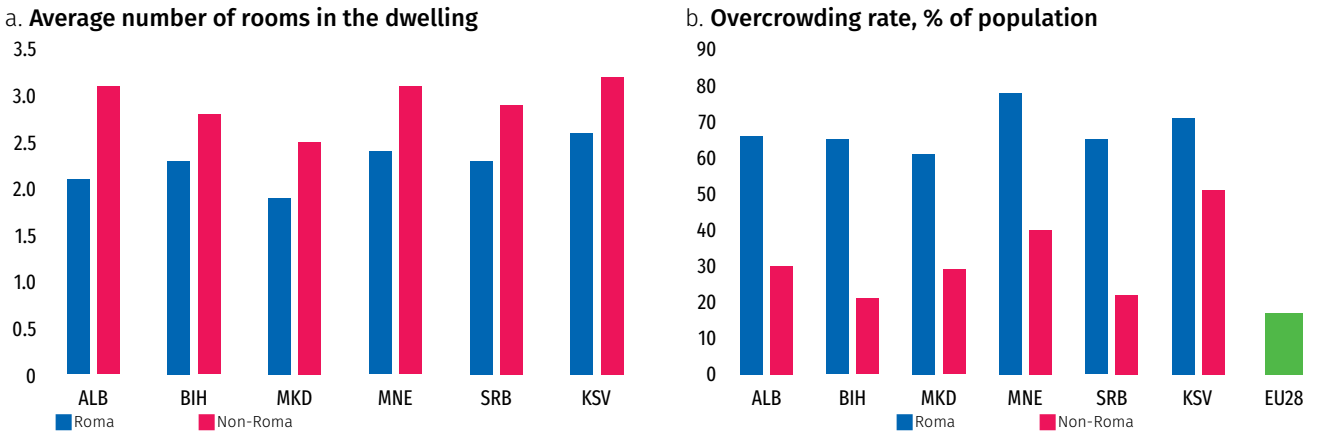
Sources: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data. National estimates for access to electricity: World Development Indicators 2017. National estimates for access to piped water in the dwelling and connection to public sewerage or waste water tank: ECAPOV (circa 2017), ALB: HBS 2016; KSV: ECAPOV 2017; MNE: ECAPOV 2015; MKD: EU-SILC 2016; SRB: ECAPOV 2015.

Roma housing is substandard in quality and access to services; it also tends to be much smaller, which, together with larger households, leads to high rates of overcrowding. Across countries, the average dwelling inhabited by a Roma household tends to have from 2.0 to 2.5 rooms, and the average gap with respect to non-Roma neighbors ranges from 0.5 to 1.0 rooms (Figure 2.24, panel a).[53] The share of Roma households in dwellings with only one room ranges from 16 percent (in Kosovo) to almost one-half (in Montenegro).[54] Roma households are less likely to report that they have a kitchen,

52 For example, anecdotal evidence in Bosnia and Herzegovina suggests that Roma children suffer from bullying if they attend school unkempt because of a lack of access to piped water.
53 Not including kitchens, bathrooms, corridors, and rooms rented out or used by another household.
54 World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Survey data.

shower, or bathroom in the dwelling, especially in Albania and Montenegro. The relatively smaller size of dwellings inhabited by Roma is an indication of the inferior quality of the dwellings. Because Roma tend to have more household members, the result is substantial overcrowding. The number of rooms per person among Roma ranges from 0.5 (Montenegro) to 0.8 (North Macedonia and Serbia); generally, non-Roma have access to at least 1.0 room. In the EU28, the average is 1.6 (EU-SILC 2016). More than half of Roma live in households that are considered overcrowded.[55] The share reaches 71 percent in Kosovo and 78 percent in Montenegro. This contrasts with non-Roma in the vicinity, among whom overcrowding reaches 51 percent in Kosovo, but is only 21 percent in Bosnia and Herzegovina (Figure 2.24, panel b). The EU28 average in 2016 was 16.6 percent. Together with deficient access to services, overcrowding leads to obstacles among Roma in accumulating human capital because it can negatively affect physical and mental health, in addition to relationships within the household. In particular, children disproportionately live in overcrowded households, likely negatively impacting their emotional and physical development. Roma women's safety and privacy are also compromised by overcrowding and the lack of access to a private toilet.

Figure 2.24. **Roma Live in Smaller Dwellings and Are Disproportionately Affected by Overcrowding**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data. EU28 average from Eurostat 2016.
Note: Panel a: kitchens, bathrooms, corridors, and rooms rented out or used by another household are not included in the number of rooms. Panel b: The Eurostat definition of overcrowding is used. See Appendix B for details on the definition.

In addition to lack of access to traditional inputs such as financial capital, housing, and land, lack of access to labor market information and networks may affect the matching of Roma job-seekers with job vacancies. The lack of information about the location of jobs and the nature of the skills required can render a job search less efficient (Box 2.5). It can likewise affect decisions on investment in human capital, given the uncertainty of the returns, and other educational choices, such as the selection of occupation and career. Access to computers and the Internet can help improve the quality of labor market information, but substantial gaps still exist between Roma and their non-Roma neighbors and the general population (Figure 2.25). An ongoing World Bank project in Kosovo, the Kosovo Digital Economy, is supporting the government's digital agenda by expanding access to digital infrastructure in rural communities, with a potential impact on Internet access among Roma communities in rural areas.[56]

55 According to the Eurostat definition; see Appendix B for details on the definition.

56 The project conducts digital skills training in which courses oriented toward the needs of the information and communication technology industry are taught to priority population segments that are affected by under- and unemployment in Kosovo (for example, young men and young women). Roma also may be positively affected by this component if they are eligible beneficiaries, though the program primarily caters to under- and unemployed graduates of local universities with at least some knowledge of English. This eligibility requirement will likely exclude the vast majority of Roma.

Box 2.5. **Evidence on Roma and Social Capital Based on a Qualitative Study in Serbia**

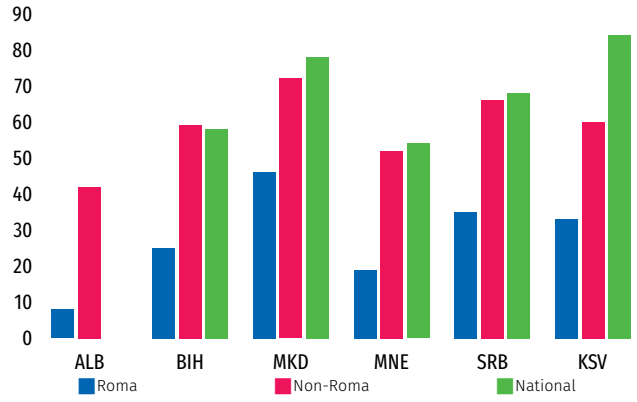
What does lack of social capital mean for Roma, and how does it impact schooling or job opportunities? The qualitative work in Serbia found that, in the case of schooling, lack of social capital primarily means lack of information networks. For instance, among all Roma parents interviewed, none were aware of the scholarships or affirmative action available for the benefit of Roma children in school. In the case of jobs, Roma women, particularly youth, unlike their non-Roma counterparts, believe that they have few role models in their community, which makes it difficult for them to visualize career pathways. There also seems to be a difference in how Roma respondents find jobs and start work relative to non-Roma. While non-Roma rely on social networks, public information, informal access to capital, and role models, Roma mentioned none of these resources.

Not only are Roma less likely to have social capital within their group, but their social capital is not useful across ethnic groups. Indeed, respondents said that, since the transition from socialism, there seems to have been a reduction in social capital across ethnic groups and fewer instances of situations in which Roma and non-Roma participate equally in seeking to achieve a common goal and are acknowledged as equally competent at socially valued tasks. This is a possible entry point for an intervention because the creation of intraethnic networks would help build social capital across communities, including among Roma, but it can also address the root cause of schooling and employment gaps—structural discrimination—by enhancing trust across groups.

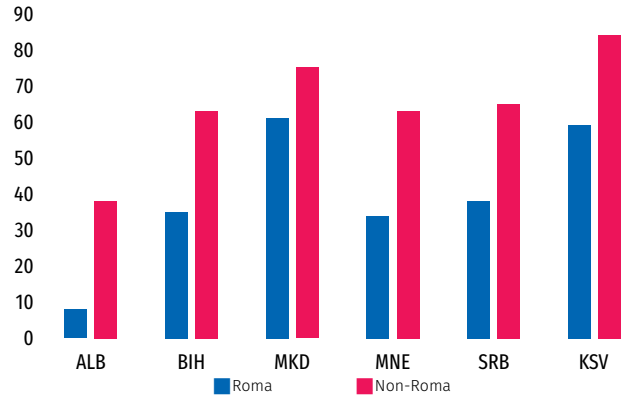
Source: Majumdar and Woodhouse 2019.

Figure 2.25. **Roma Are Less Likely to Have Computers at Home or Access to the Internet**

a. **Computer ownership, % of population**



b. **Internet access, % of population**



Sources: Roma data: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data. National estimates: ECAPOV (circa 2017); KSV: ECAPOV 2017; MNE: ECAPOV 2015; MKD: EU-SILC 2016; SRB: ECAPOV 2015.

Roma mediators can help build trust with public employment offices, but the evidence is mixed. Evidence suggests that unskilled Roma, especially those living in marginalized areas, are unwilling to register with job centers, given the problems accessing the offices as well as the lack of trust (Gatti et al. 2016). Roma mediators in Hungary were found to be helpful among unemployed Roma and increased the levels of trust in the offices among job-seekers. In Bulgaria however, Roma mediators

had no effect because they are usually appointed because of political networking, are not skilled for the task, and had no incentive to fulfill the role (Messing et al. 2013).

Access to information is especially restricted among the many Roma who live in settlements that are isolated and who have had few or negative interactions with official institutions. In such settings, information on available support and services is often lacking, as is trust in institutions and organizations based outside the local community. Thus, Roma women in isolated settlements are particularly likely to encounter difficulties in accessing relevant information, pointing to the need for additional, targeted support for entering the labor market.

The Productivity Channel: The Use of and Returns to Assets

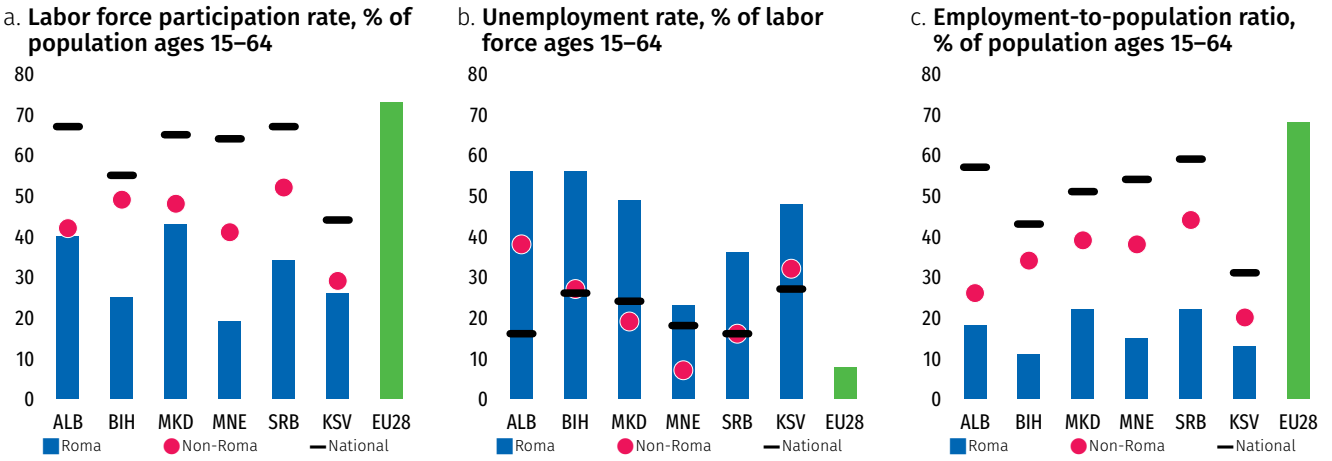
This subsection examines the decisions of Roma households to use their accumulated human capital in the labor market, as well as the market returns associated with these investments. Decisions about the application of human, physical, and social capital are typically aimed at maximizing a payoff that includes labor earnings, employment, financial returns, and cultural and nonmonetary gains (the productivity channel). But investing in school may not be an attractive choice if employment and wage prospects today are poor or uncertain, there are frictions in the markets because of limited information, or individuals do not know how much productivity and wages will increase because of such investments. Not investing in human capital will likely translate later in poor employment prospects and become a self-fulfilling prophecy. Smart policies should focus on breaking this cycle.

Use of Assets

The use of human capital is low among Roma; low labor force participation, combined with a high incidence of unemployment, have led to poor employment prospects among working-age Roma. Individuals use their human capital with some intensity to participate in the labor market. Given that human capital is unequally distributed, there are significant differences in the rate at which this asset is used. Roma are much less likely than their non-Roma counterparts and the majority population to participate in the labor market (Figure 2.26, panel a). Unemployment is especially high among Roma; over 50 percent of economically active working-age Roma are unemployed in Albania and in Bosnia and Herzegovina (Figure 2.26, panel b). The share of employed Roma ranges from only 13 percent of working-age Roma in Kosovo to 22 percent in North Macedonia, which is much smaller than the corresponding share among their non-Roma neighbors and national averages, which are already much lower than the average employment rates in the EU28 (Figure 2.26, panel c).

Social assistance and household transfers do not seem to have created work disincentives among marginalized Roma in the Western Balkans. Labor market outcomes and the dynamics of the labor market may be affected by nonlabor income such as remittances, pensions, or social assistance. This is because these sources of nonlabor income are associated with high reservation wages, which decrease the probability of accepting job offers, thereby leading to high unemployment. Higher nonlabor income may create perverse increases in inactivity and increase the duration of unemployment (Blanchard, Jaumotte, and Loungani 2013; Cahuc and Zylberberg 2004). However, evidence from the RRS suggests this is not the case.

Figure 2.26. **Labor Force Participation, Unemployment, and Employment-to-Population Ratio, Roma**



Sources: World Bank estimates based on weighted 2017 Regional Roma Survey data; World Bank SEE Jobs Gateway; Eurostat.

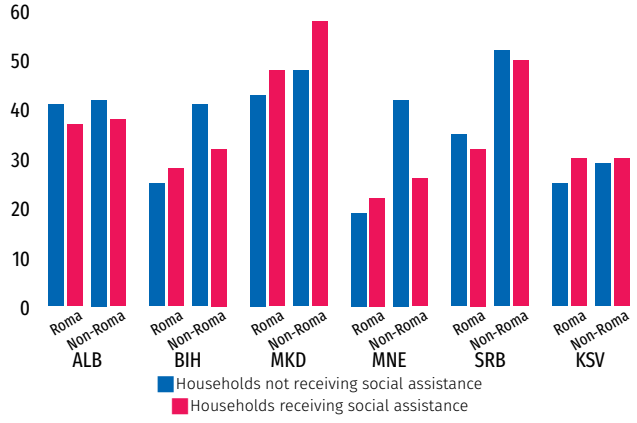
Social assistance does not seem to have generated disincentives to shift Roma individuals from employment or unemployment to inactivity. Because of a lack of data, no previous studies use empirical impact evaluation tools—regression discontinuity, instrumental variables, or matching techniques—to show the impact of the main social assistance programs in the Western Balkans on work disincentives among the marginalized Roma population. However, 2017 RRS data indicate no significant differences in labor force participation between Roma individuals in households receiving social assistance and those in nonrecipient households (Figure 2.27).[57] This may be explained by the fact that social assistance represents a relatively small share of household income in most countries (except Serbia), ranging from 7 percent in Kosovo to 16 percent in Montenegro. Among non-Roma, participation rates among individuals in households receiving social assistance are lower only in Bosnia and Herzegovina and Montenegro.

Substantial reliance on remittance income may have contributed to low labor force participation rates and high unemployment because of the possible impact on reservation wages, but this cannot be tested with the available RRS data. In some of these countries, labor migration has become a vital strategy for improving household welfare. Close to half of Kosovo's citizens are estimated to have family members living abroad (Cojocaru 2017). This large outward migration resulted in an average remittance income of 15.6 percent of gross domestic product (GDP) in 2017. In Albania and in Bosnia and Herzegovina, remittances represent a significant share of GDP, close to 10 percent in 2017 (World Development Indicators). Even though there are no reliable estimates of the share of the Roma population living abroad, unofficial estimates indicate the share may be significant. Although some research on other countries suggests that remittances reduce labor supply (Grigorian and Melkonyan 2011), other studies find ambiguous effects (Amuedo-Dorantes and Pozo 2006). In a large sample of countries, there is a statistically significant negative correlation between labor force participation and remittances (World Bank 2017d). Remittances may also affect the willingness of the unemployed recipient to take certain types of jobs, leading to higher unemployment rates and, possibly, longer spells of unemployment. No previous studies have looked into this, likely because of the unavailability of reliable data on remittance income among Roma households.

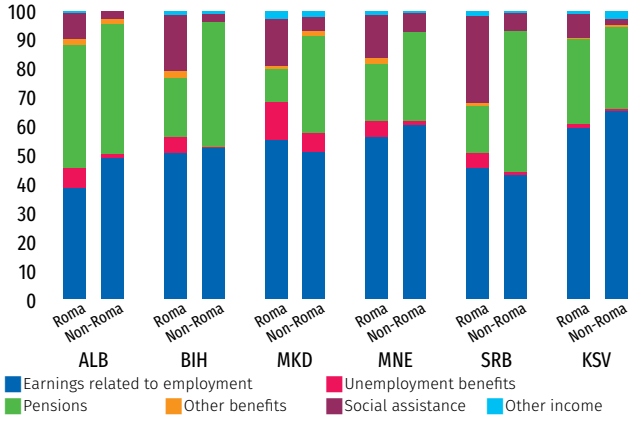
57 Last resort social assistance programs in the Western Balkans are, in Serbia, Financial Social Assistance; in Albania, Ndhima Ekonomike; in North Macedonia, Social Financial Assistance; in Kosovo, Social Welfare Benefits; in Montenegro, the Family Material Support and benefits based on social care; in Bosnia and Herzegovina, Permanent Financial Assistance.

Figure 2.27. **Labor Force Participation Is Not Significantly Lower among Roma Households Receiving Child and Social Allowances**

a. **Labor force participation rate, % of population ages 15–64**



b. **Sources of household income, % of household per capita income**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Earnings related to employment include both wage and self-employment income; pensions include the old-age pension, family pension, disability pension, agricultural pension, and pension from private pension insurance; other benefits refer to monetary compensation for the temporary inability to work (sick leave) and aid in connection with education (educational allowance); social assistance includes allowances for assistance and care for another person, pregnancy and maternity leave allowances, the last resort social assistance program, allowances and other income of socially vulnerable persons in the household, allowances for mothers of three or more children (only Montenegro), heating subsidies, subsidies for utility service bills, one-time financial assistance, the parental allowance, and child allowance; and other income includes interhousehold transfers (financial assistance or alimony given or received by the household) and household income from renting a room, flat, or house. The sample is restricted to households that report positive household income.

The evidence on the impact of household transfers on labor market outcomes among Roma is scarce because of the lack of data, and the RRS data suggest there may be an impact only in Bosnia and Herzegovina. Given the data limitations, the analysis is limited to inactivity rates among individuals in Roma households that receive financial assistance or alimony from other households whether in the country or abroad.[58] The data reveal that, only in Bosnia and Herzegovina, the inactivity rates are 6 percentage points higher among Roma households receiving transfers. In all other countries, the opposite results hold.

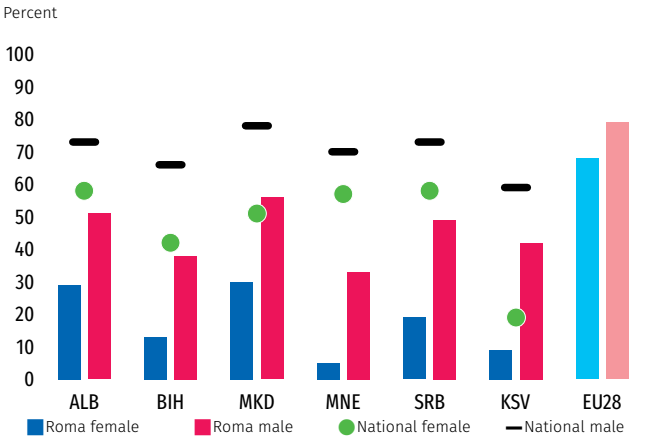
The gender gap in labor force participation among Roma is large in all countries. Moreover, a significant share of the gender gap remains unexplained after one controls for individual and household characteristics; this implies that unobserved factors, which may include social norms and discrimination, may be important in explaining the gap. The gender gaps in labor force participation among Roma range from 23 percentage points in Albania to 33 percentage points in Kosovo (Figure 2.28). In almost all countries, little of the gender gap is explained by differences in individual and household characteristics between Roma women and men; the unexplained component accounts for a significant proportion of the total gap (Figure 2.29). This implies that the gap is mostly attributable to differences in the returns to individual and household characteristics and therefore likely to be associated with gender discrimination against (Roma) women or with social norms that tend to relegate women to the home. Several studies find that gender discrimination in the labor market in developing countries may be the result of the cultural bias of employers, but also of household decision making, especially in countries or among groups in which patriarchal social norms predominate (Contreras and Plaza 2010; Dao 2014; Farré and Vella 2013; Jain-Chandra et al. 2018; Sarkhel and Mukherjee 2014; Verick 2014).

Roma women with low educational attainment often choose not to participate in the labor market (Figure 2.30, panel a). Women do not find adequate incentives to join the labor force. Participating

58 The 2011 and 2017 RRS rounds supply information on households receiving financial assistance or alimony from other households, but not on whether the households transferring the resources are within the country.

in the labor market is less profitable than home production and not highly valued by women or their communities. However, Roma women with higher educational attainment may obtain sufficiently attractive rewards. Indeed, a larger share of such women use this asset, though their labor force participation rates still fail to match those of Roma men with similar or even lower educational attainment (Figure 2.30, panel b). In Albania and Montenegro, labor force participation rates are lower among Roma women who have completed ISCED 3 (upper-secondary education) or above than among Roma men who have not completed compulsory education.

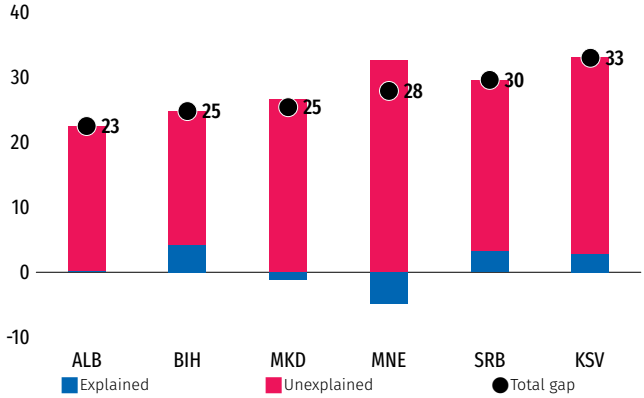
Figure 2.28. **Labor Force Participation among Roma, Especially Females, Is Low**



Source: World Bank estimates based on weighted 2017 Regional Roma Survey data, World Bank SEE Jobs Gateway and Eurostat.
Note: The labor force participation rates shown are among the working-age population (15–64). National data refer to 2016.

Figure 2.29. **Most of the Gender Gap in Labor Force Participation among Roma Cannot Be Explained by Differences in Characteristics between Roma Males and Roma Females, 2017**

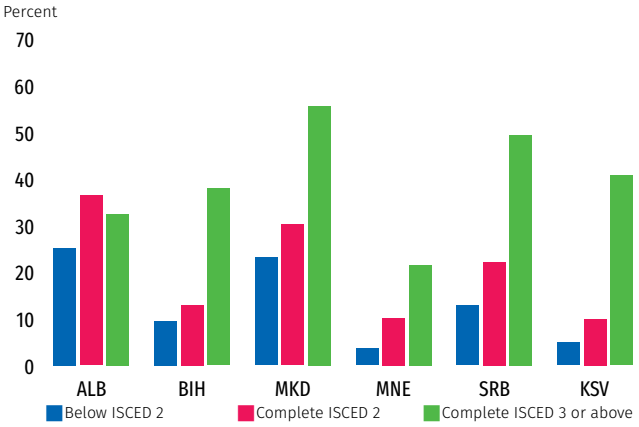
Blinder-Oaxaca decomposition of the percentage point gender gap in labor force participation



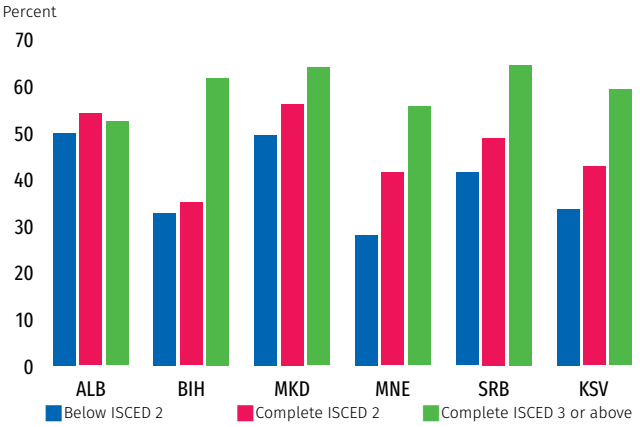
Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Figure 2.30. **Labor Force Participation Is Low among Less Well Educated Roma Females**

a. **Roma females, share of working-age population ages 15–64**



b. **Roma males, share of working-age population ages 15–64**



Source: World Bank estimates based on weighted 2017 Regional Roma Survey data and Eurostat.

Childcare and other family responsibilities are the main reasons Roma females are inactive in most countries, but, in Albania and in Bosnia and Herzegovina, the lack of jobs also matters. The 2017 RRS asks respondents about the main reasons they are economically inactive. In most countries, the

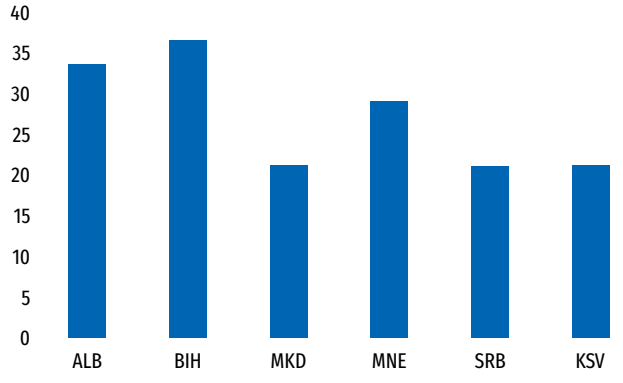
reasons given by the largest group among inactive females are duties as homemakers, pregnancy, or the need to look after small children. Among younger cohorts, childcare is more important, while, among older cohorts, the role of females as homemakers is important. Relative to other countries in the region, a larger share of females in Albania and in Bosnia and Herzegovina report that the lack of jobs is the main reason (Appendix E, Table E.9–Table E.11). Among Roma, these two countries also exhibit the highest unemployment rates in the region, reaching 56 percent.

Inactivity among Roma men is related principally to the market, but health problems are a factor among older cohorts. The perception that Roma men are being discriminated against seems to discourage workers from labor force participation in Bosnia and Herzegovina, but not in other countries. Among Roma males in the region, the main reason offered for inactivity is the lack of jobs, followed by health problems (Appendix E, Table E.9–Table E.11). Between 37 percent and 52 percent of inactive males in Serbia and Albania, respectively, say the lack of jobs is the main reason they are not looking for work and are thus inactive. Health reasons also stand out, particularly among older cohorts (men ages 40–64).

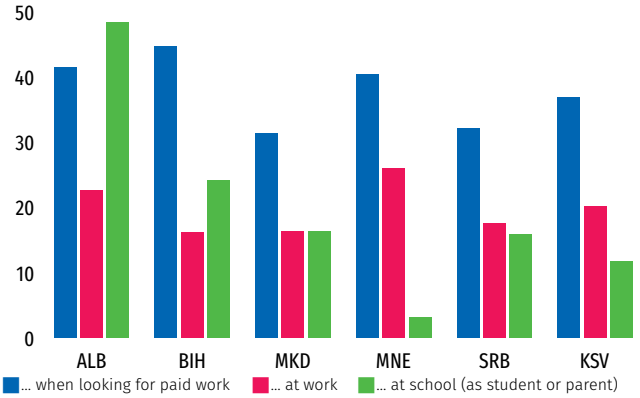
In Bosnia and Herzegovina, the perception that they are being discriminated against seems to be relevant among a large share of Roma males. "Because I am Roma, nobody hires me," one-fifth of Roma males respond in Bosnia and Herzegovina when asked about the main reason they do not look for work in the RRS. This compares with only 4 percent in Albania, Montenegro, and Serbia (Appendix E, Table E.9). When Roma who had looked for a job in the previous five years were asked if they ever experienced discrimination during the process, a large share across countries answered yes. The largest share, 45 percent, was in Bosnia and Herzegovina, while the lowest, 32 percent, was in North Macedonia and in Serbia (Figure 2.31, panel b). Discrimination may even be more widespread because it tends to be deeply internalized and accepted among Roma, as evidenced by the qualitative work in Serbia (Majumdar and Woodhouse 2019).

Figure 2.31. **A Significant Share of Roma Report They Have Been Discriminated against because of Ethnic or Immigrant Origin**

a. **Self-reported discrimination, previous 12 months, % who felt discriminated against because of ethnic or immigrant origin**



b. **Self-reported discrimination, previous five years, % who felt discriminated against because of ethnic or immigrant origin during the previous five years or since they had moved to the country**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Based on responses of one randomly selected respondent ages 16 years and above per Roma household. In panel b, only individuals engaged in the particular activity (looking for work, during work, or at school as a student or parent) are shown.

The majority of Roma youth are not in employment, education, or training (NEET), placing them at risk of social exclusion. NEET rates among young marginalized Roma (ages 15–24) are high, ranging from 62 percent in Serbia to 82 percent in Bosnia and Herzegovina. The reasons for the high NEET rates among Roma are not difficult to determine: levels of educational attainment are lower among Roma, who have weaker labor market prospects. Young Roma females, with lower school attendance and employment rates, are also more likely to be NEET than their male counterparts. The gender gap is especially large in Albania, Montenegro, and Serbia. Among Roma and neighboring non-Roma, female NEETs tend to be out of the labor force and are often engaged in domestic and caregiving activities, while male NEETs tend to be looking for work and are thus classified as unemployed. This gender disparity is more pronounced among marginalized Roma; young Roma females are much more likely to be inactive, likely because of child marriage and early family formation.

Ethnic gap in unemployment are large; nonetheless, after controlling for background characteristics, one finds that, in the region (except in Bosnia and Herzegovina), the large employment gap between Roma and non-Roma is mostly explained by differences in education, rather than discriminatory practices in the labor market or social and community norms.[59] All countries experience large differences in employment rates (7 or 8 percentage points in Albania and Kosovo and around 17–23 percentage points in the rest of the Western Balkans). An analysis of the gap in employment between Roma and their non-Roma neighbors using a Blinder–Oaxaca decomposition (Figure 2.32, panel a) reveals that, in most countries in the region, more than 90 percent of the differences in employment rates can be explained by differences in background characteristics, though, in Bosnia and Herzegovina, about half of the gap remains unexplained, suggesting higher discrimination or adverse social norms in the labor market there. In all countries, most of the explained gap arises because of differences in education (Figure 2.32, panel b). In Montenegro, however, geography also matters: working-age Roma are much more likely than neighboring non-Roma to be living in slums, and this is associated with lower employment.

Not only is employment low among Roma, the incidence of informal employment is high among the few who are employed; however, given the low employment rates, boosting job creation rather than formalization should be a priority, especially among vulnerable groups. The informal sector is not covered by labor market regulations. Gauged according to the legal definition, informal employment accounts for a significant share of employment among countries in the Western Balkans, particularly in Albania and Kosovo (Cojocaru 2017). Informal employment among Roma accounts for 62 percent of total Roma employment in Albania, 64 percent in Serbia, and only 38 percent in North Macedonia.[60] The share of informal employment among Roma in Kosovo is among the highest in the region, accounting for 70 percent of overall Roma employment. The quality of jobs is important, but, in economies with such low employment and high unemployment rates, creating more jobs rather than formalizing current jobs should be a priority, especially among vulnerable groups.[61]

59 Background characteristics include gender, age, education, if the household speaks the national language at home, whether the individual is the household head, if the individual is single, whether there is a child in the household, if the house is located in a slum, and the kind of settlement in which the household is located. Discrimination is measured as the portion of the gap in labor market outcomes among Roma and non-Roma that remains once all observable productivity-related characteristics are statistically accounted for. This term may also reflect other unobserved factors, such as gaps in social capital or gender norms.

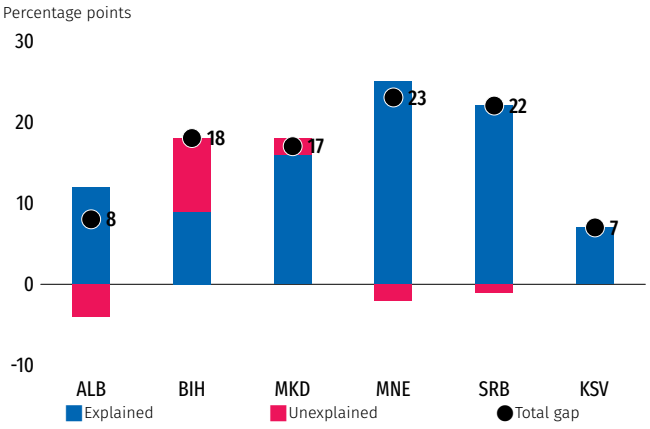
60 In this case, according to the social protection definition, informal employment represents the share of the employed population ages 15–64 that does not have a pension or health insurance tied to their jobs and paid for by either themselves or their employers.

61 During consultations with development partners, there was avid discussion on the importance of the formalization of job creation among Roma.

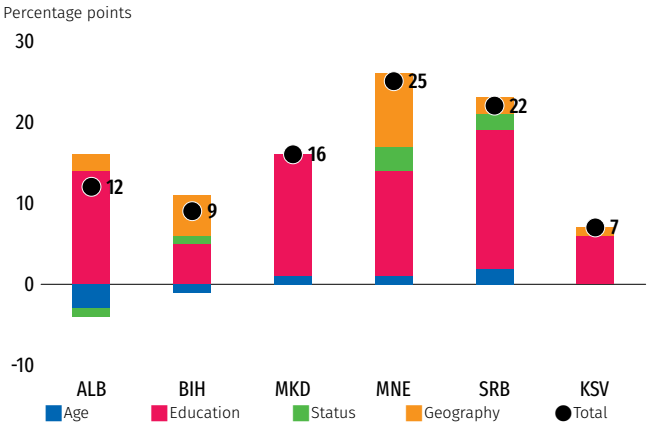
Figure 2.32. **The Large Employment Gap between Roma and Non-Roma Is Mostly Explained by Differences in Education**

Blinder-Oaxaca decomposition of percentage point gap in employment, Roma vs. non-Roma

a. **Decomposition of total change: explained vs. unexplained**



b. **Decomposition of the explained component**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The data refer to individuals ages 16–64. Status includes characteristics of the household head, civil status, and number of children in the household. Geography includes slums and other geographical identifiers (including identifiers for capital, district center or city, town, and village or unregulated area).

While the ethnic gaps in labor market outcomes and education do not necessarily imply discrimination, it is widely recognized that there is prejudice and discrimination toward Roma in the Western Balkans. A significant share of Roma, especially in Albania and in Bosnia and Herzegovina, report that they have experienced discrimination because of their ethnicity or immigrant origin during the previous 12 months or during the previous five years in specific situations, such as while looking for work, in the workplace, and at school (see Figure 2.31). Among the specific situations during the previous five years, the experience of discrimination while looking for a job stands out. Between 32 percent and 45 percent of Roma report that, in this situation, they experienced discrimination related to their ethnicity or immigrant origin. Self-reported discrimination in the workplace and at school as a parent or a student is more limited; generally fewer than 20 percent of Roma report that they experienced discrimination in these contexts, though Albania is an outlier in self-reported discrimination at school (49 percent).[62] The data, though significant, may be underreported. Qualitative evidence from Serbia shows that the stigma of discrimination is often considered the norm and is deeply internalized and accepted (especially in contrast to non-Roma counterparts). This has resulted in a normalization of discriminatory practices among service providers (Box 2.6; see also Box 2.2 for mechanisms of discrimination in schooling). Across countries, only between 37 percent and 65 percent of Roma report that they are aware of any laws in their countries that forbid discrimination against ethnic minorities in, for example, applying for jobs, at school, or in accessing services. This implies that, even if Roma are conscious of being subject to discriminatory practices because of their ethnicity, many, if not most, are unlikely to take remedial action.

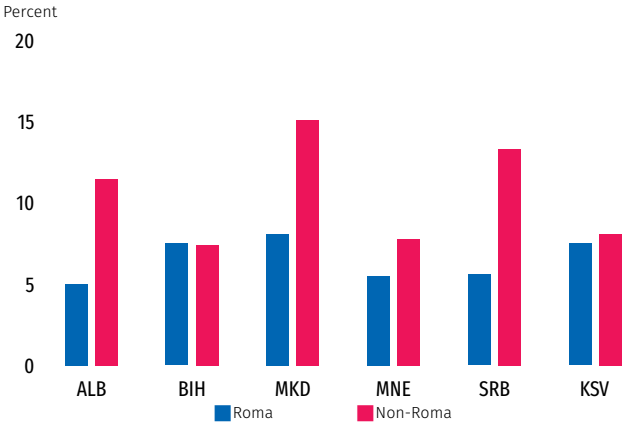
Entrepreneurial activity is low, and start-ups are significantly more likely to be informal among Roma households than among their non-Roma neighbors.[63] In 2017, fewer than 10 percent of Roma households in all countries had at least one member who had ever tried to start a business.[64] Although

62 Only individuals engaged in a particular activity (looking for work, during work, or at school as a student or parent) are taken into account.
63 Informal refers here to a business that is not registered.
64 A business is defined in the questionnaire to include any formal or informal income-generating activity requiring only that the person is not employed by someone else. There is no information available on how many of those who attempt to start a business actually succeeded.

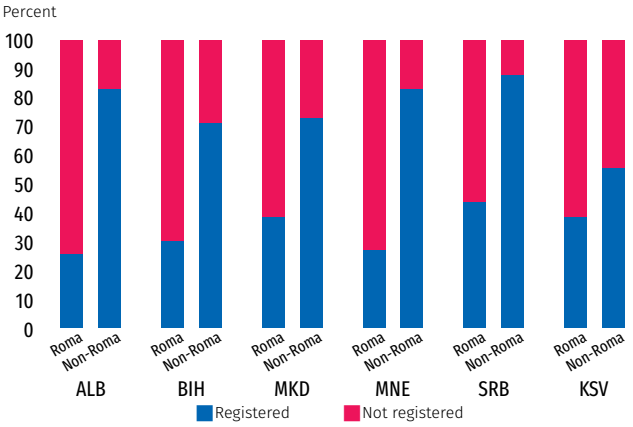
the shares are somewhat higher among non-Roma households in some countries, they still only reach as high as 15 percent (Figure 2.33, panel a). This seems to be not only a Roma issue, but also an issue that affects the general population. Even if not fully comparable, this evidence is more or less consistent with previous evidence from the Life in Transition Survey data, which show that, in the Western Balkans, a smaller share of the workforce attempted to start businesses relative to the workforce in other countries in Europe and Central Asia (Arias et al. 2014).[65] However, although the gap in entrepreneurship may not be so large, if Roma do start a business, the business is much more likely to be informal. Among Roma start-ups, around 80 percent are not registered; among the start-ups of non-Roma neighbors, around 80 percent tend to be registered (Figure 2.33, panel b).

Figure 2.33. **Roma Are Less Likely to Start a Business and, If They Start One, It Is Likely to Be Informal**

a. **Attempts to start a business**



b. **Informality among start-ups**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Attempts to start a business = households with at least one member who took steps to start a business as a percent of all households.

Box 2.6. **Evidence of Discrimination in Labor Markets: A Qualitative Study in Serbia**

A qualitative study was used to probe unexplained differences in earnings in Serbia. Respondents were asked, for example, if there were differences in how Roma and non-Roma experience labor markets. While Roma and non-Roma respondents in marginalized neighborhoods all faced the same constraints in gaining access and overcoming issues of distance to jobs and schools, and both groups of respondents seemed to consider job prospects to be dwindling across the country, there is a stark contrast in the way the two groups articulate their aspirations and life chances. In contrast to non-Roma, Roma affirm that they have experienced and been obliged to internalize the stigma of discrimination and that they have therefore achieved less-than-optimal outcomes. The most harmful consequences of the internalization of this stigma include the deep-rooted normalization of injustice, obstacles to the creation of collective capacity, and the systematic erosion of human capital potential across generations.

(continued)

65 See also relevant data of LiTS (Life in Transition Survey) (database), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.

(Box 2.6 continued)

Formal employment among Roma is rare and mostly involves working in public utilities (especially in city sanitation units in Belgrade), as custodial staff in enterprises (women), and, among a smaller group of Roma, as industrial workers in the south (in Vranje). The majority of Roma have informal jobs such as trading in open-air markets, bin-diving, or the collection of recyclables (informal recycling), cleaning jobs, working on construction sites, and so on.

Meanwhile, their non-Roma neighbors, who, despite the same constraints, seem to be more optimistic about their chances of finding employment and tend to be in more stable jobs relative to Roma.

All Roma respondents referred to and accepted the reality that they must work more than others to retain their jobs. They have shorter contracts with fewer benefits relative to non-Roma with about the same qualifications. They are often treated differently at work, which leaves them unmotivated.

> *The conditions are different. They treat us differently as soon as they hear our names. I applied for a job once, and there was another woman who applied, too. Both of us got a job, but she signed a six-month contract, and I only a one-month contract. You receive different treatment. Whenever something goes missing, they accuse us first.*
>
> —Roma woman, age 40–45, women's focus group, Kamendin, Belgrade

Several respondents considered emigrating for this reason. They feel they will likely face less discrimination.

> *People are kinder abroad; they don't ask who you are.*
>
> —Roma woman, age 40–45, women's focus group, Kamendin, Belgrade

Moreover, factors that typically constrain Roma are not constraints for non-Roma. For instance, several non-Roma respondents said that, although they lack proper documents or high school degrees, they are rarely asked for these during the job application process, and they seem well aware that this does become a constraint for their Roma counterparts for the same types of jobs.

> *I know that, despite a lack of documents, I can get a job, but they can't.*
>
> —Non-Roma Serbo-Croatian refugee woman, age 50–60, interview, Kamendin, Belgrade

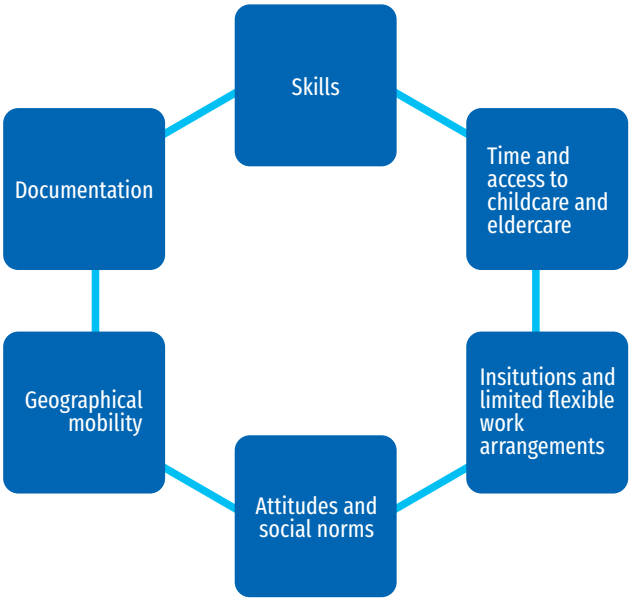
There also seems to be a difference in the way Roma and non-Roma find jobs. While the latter said they rely on social networks, public information, and role models, the former did not mention any of these resources.

Sources: Dordevic and Radovic 2018; Majumdar and Woodhouse 2019.

Barriers Affecting the Use of Assets

Several constraints that Roma face affect their ability to enter the labor market and use their accumulated assets. These include differences in endowments between Roma and their non-Roma neighbors (such as skills; access to productive inputs, information, and networks; time; and access to services), different preferences (attitudes and social norms determining time use, family formation, and geographical mobility), and contextual factors, including attitudes, social norms, and institutions (work arrangements, legal rights) that determine the role of Roma men and women in society (Figure 2.34).

Figure 2.34. **Barriers to Employment Disproportionately Affecting Younger and Older Workers, Women, and Ethnic Minorities**



Source: Modified version of the classification of Arias et al. 2014.

Constraints to employability, including lack of skills and experience, constitute the first and most important set of barriers faced by Roma. Unemployment and low wages are often the result of a mismatch between the specific technical and nontechnical skills employers require and the skills usually possessed by Roma, who are characterized by low educational attainment, limited work experience, and long stretches of unemployment. Marginalized Roma often enter the labor market with low levels of education, limited hard and soft skills, little or no work experience, and substantial experience among the ranks of the unemployed.

Constraints to participation constitute the second set of barriers faced by Roma. These include a lack of mobility, residential segregation, a lack of childcare and eldercare options, limited flexibility in work arrangements, lack of documentation, and adverse attitudes, social norms, and discrimination.[66] Many marginalized communities are located in areas in which access to social services, health care, and housing is limited and in which people are reluctant to move or commute for a job. Dependency ratios are high across Roma households, and the lack of childcare and eldercare options limit participation on the labor market, especially among women. Many Roma job-seekers face capital constraints—a major impediment among those trying to start a business or become self-employed—and lack social capital and networks of information on job and training possibilities. Adverse attitudes and social norms—discrimination, lack of role models, and so on—inhibit Roma participation in the labor market.

In addition to tackling supply-side barriers to employability, it is also important to address labor demand constraints. If only the barriers on the labor supply side are lifted, for example, through higher educational attainment and training, but demand-side constraints are not tackled, outcomes may not necessarily improve. Interventions might be aimed at encouraging the private sector to focus on hiring Roma by using quotas, wage and employment subsidies, and other incentives.

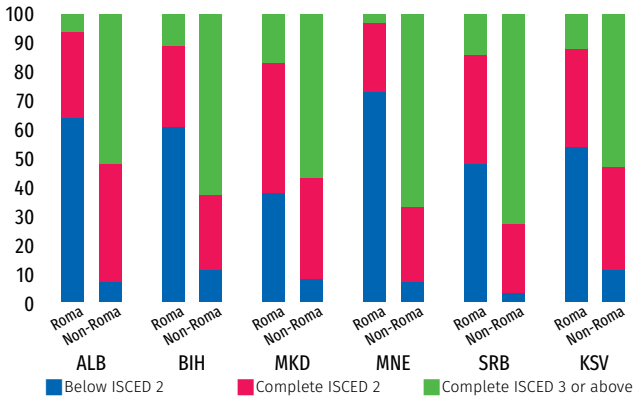
66 Based on classification of Arias et al. (2014).

Skills

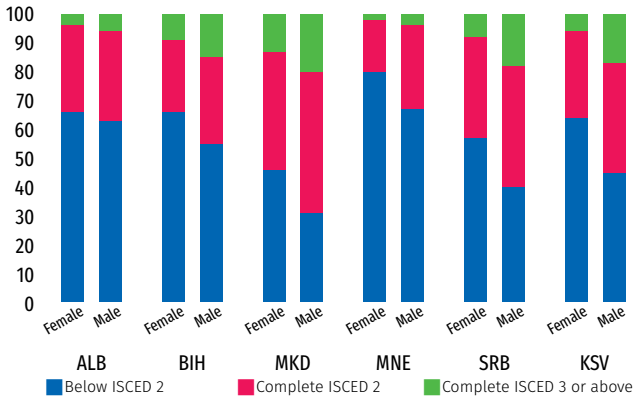
Insufficient human capital accumulation across the life cycle represents a major barrier to Roma employment. The share of working-age Roma (ages 15–64) with low educational attainment (incomplete compulsory education [ISCED 2] or below) varies from 54 percent in Kosovo to 73 percent in Montenegro (Figure 2.35, panel a). In contrast, the share of their non-Roma neighbors with low educational attainment ranges from only 3 percent in Serbia to 11 percent in Kosovo. Because of constraints to formal education and, probably, deficiencies in education quality, Roma enter the labor market lacking skills and are likely unprepared for subsequent skills acquisition. They are also clearly at a stark disadvantage compared with their non-Roma peers living in their vicinity and competing for the same jobs.

Figure 2.35. **Educational Attainment Is Lower among Roma, Especially Roma Females**

a. **Roma vs. non-Roma, % of working-age population, ages 15–64**



b. **Roma females vs. Roma males, % of working-age population, ages 15–64**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Educational attainment is even more deficient among Roma girls and women. Roma women are affected by two barriers, ethnicity and gender, leading to lower educational attainment and skill acquisition. Among the working-age population, there are significant differences in educational attainment between Roma males and Roma females across countries, except Albania (Figure 2.35, panel b). For example, in Kosovo, the majority of working-age Roma females (64 percent) have not completed compulsory education. In contrast, this is the case among only 45 percent of Roma males, and 17 percent of Roma men have completed upper-secondary education or above. Though a gender gap is also evident in educational attainment among non-Roma neighbors, it is much smaller. Low educational attainment among Roma females translates into low labor force participation and low earnings.

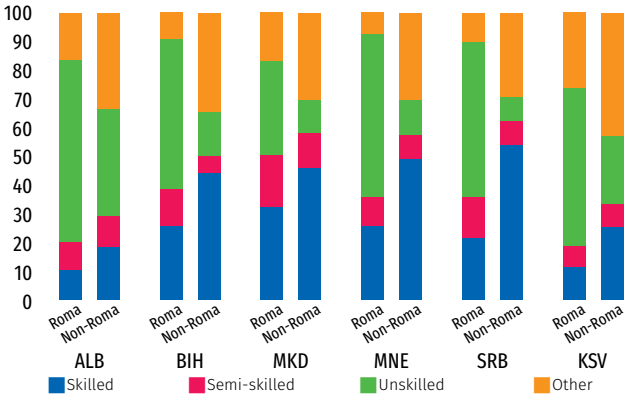
Among those Roma who have attained a good education, skill mismatches can pose an additional challenge. Several studies on the Western Balkans have highlighted large differentials between the types of skills demanded by firms and the skills available (Arandarenko and Bartlett 2012). Skill shortages and surpluses emerged early during the process of economic transition in the Western Balkans as a consequence of privatization and economic restructuring. The transition induced a growing demand for new skills measured by educational attainment, but also by other proxies that capture cognitive and noncognitive skills, but the supply of skills did not keep up, despite the rapid expansion in the coverage of tertiary education among the general population. A skills mismatch

index shows that the mismatch across the general population are a binding constraint in Kosovo and Montenegro.[67] In Montenegro, for example, relative to demand, at least 15 percent of the unemployed will not benefit from job growth because of insufficient educational attainment, and 20 percent will not benefit because of the occupational mismatch.

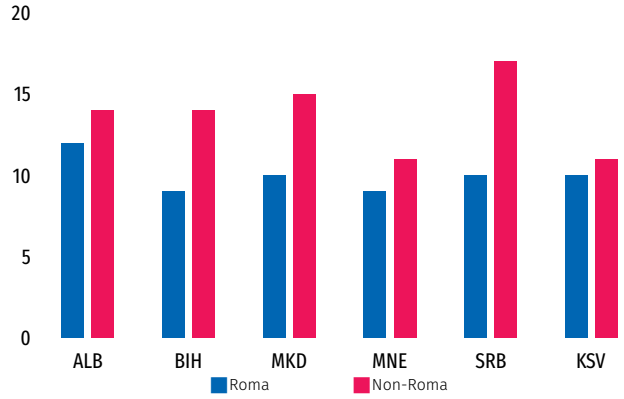
Lack of skills and limited work experience among Roma represent significant barriers to employment. The majority of Roma workers report that they are in unskilled jobs (Figure 2.36, panel a). More than half of Roma workers report that they are unskilled, except in North Macedonia, where the share is below one-third. As a comparison, only 10 percent to 40 percent of non-Roma hold unskilled jobs. In addition, working-age Roma show consistently less work experience than their non-Roma counterparts: Roma have between 9 and 12 years of experience, while non-Roma have between 11 and 17 years (Figure 2.36, panel b).

Figure 2.36. **Roma Have Less-Skilled Jobs and Fewer Years of Work Experience Than Their Non-Roma Neighbors**

a. **Skill level of current or previous job, % of working-age population ages 15–64**



b. **Work experience among the employed, ages 15–64, years**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Skill level and experience are self-reported. Other includes owners of businesses, enterprise or division manager, professionals, white-collar workers, office workers, foremen, technicians, military personnel, civil servants, farmers, and landless farm laborers.

The acquisition of vocational skills depends on employment and on-the-job training, to which Roma have limited access. In North Macedonia, 72 percent of the working-age Roma population would be deemed ineligible for the active labor market programs (ALMPs) offered by the public employment service (PES) because they have not completed compulsory education. Preferential access to such measures among people who have completed secondary education effectively excludes a large share of unemployed Roma from securing marketable qualifications.

Time and Access to Services: Childcare and Eldercare

Childcare responsibilities may affect women's decision to participate in the labor market. Young-age dependency ratios are much higher among Roma communities than among their non-Roma neighbors (Figure 2.37). Roma women tend to marry earlier, start families at younger ages, and have

67 Variances in relative unemployment rates are used as a summary measure of the mismatch in the labor market (Arandarenko and Bartlett 2012; Lipsey 1960). The higher the variance (a greater scattering of unemployment rates among educational groups), the greater the mismatch. The emergence of the binding constraint is consistent with the fact that education and skills have not been recognized as major constraints in Serbia.

more children, sometimes because of child marriage (Figure 2.38). The lack of affordable childcare, together with social norms that dictate that childcare and eldercare are women's responsibilities, thus represent binding constraints on women during the childbearing years (Box 2.7). Roma women tend not to participate in the labor force mostly during the childbearing years, often not reaching peak participation until they are in their 40s (Figure 2.39).

Figure 2.37. **The Young-Age Dependency Ratio Is Much Higher among Roma**

Young-age dependency ratio, %

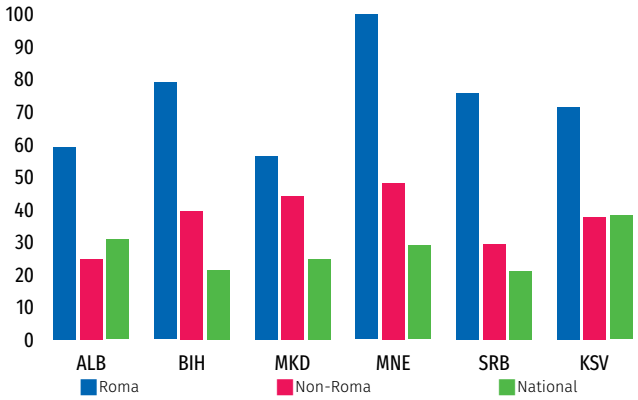
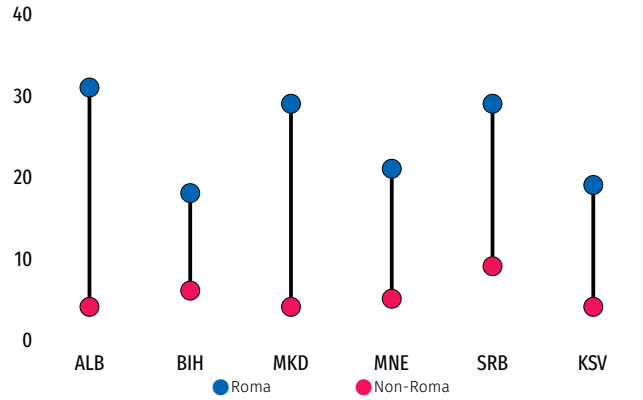


Figure 2.38. **Marriage Begins at an Early Age for the Roma**

Women ages 20–49 who first married before age 18, %

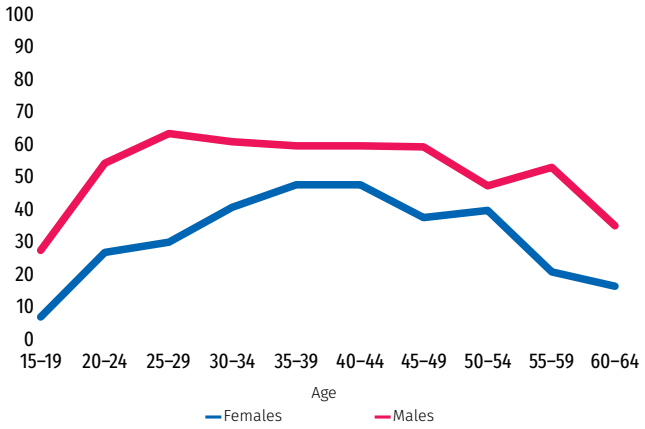


Sources: Roma and non-Roma: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data. National estimates: ECAPOV (circa 2017), ALB: HBS 2016; KSV: ECAPOV 2017; MNE: ECAPOV 2015; MKD: EU-SILC 2016; SRB: ECAPOV 2015.
Note: The young-age dependency ratio = ratio of children ages 0–14 in the household to the working-age population (ages 15–64).

Figure 2.39. **Roma Females Participate Less in the Labor Force, Especially at Young Ages, When Family Formation Begins**

Labor force participation rate (% of population ages 15–64), Roma, by age-group and sex

a. **Albania**



b. **Bosnia and Herzegovina**

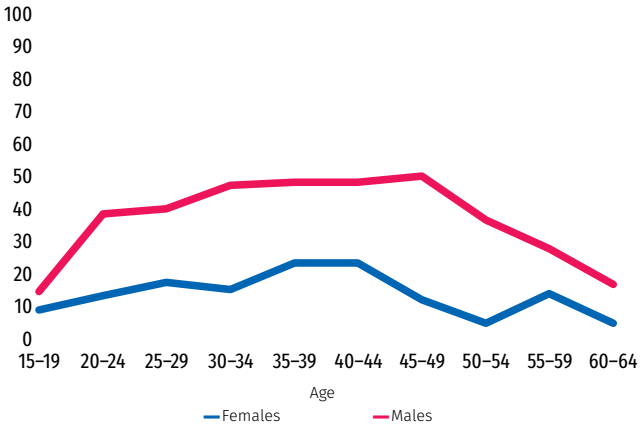
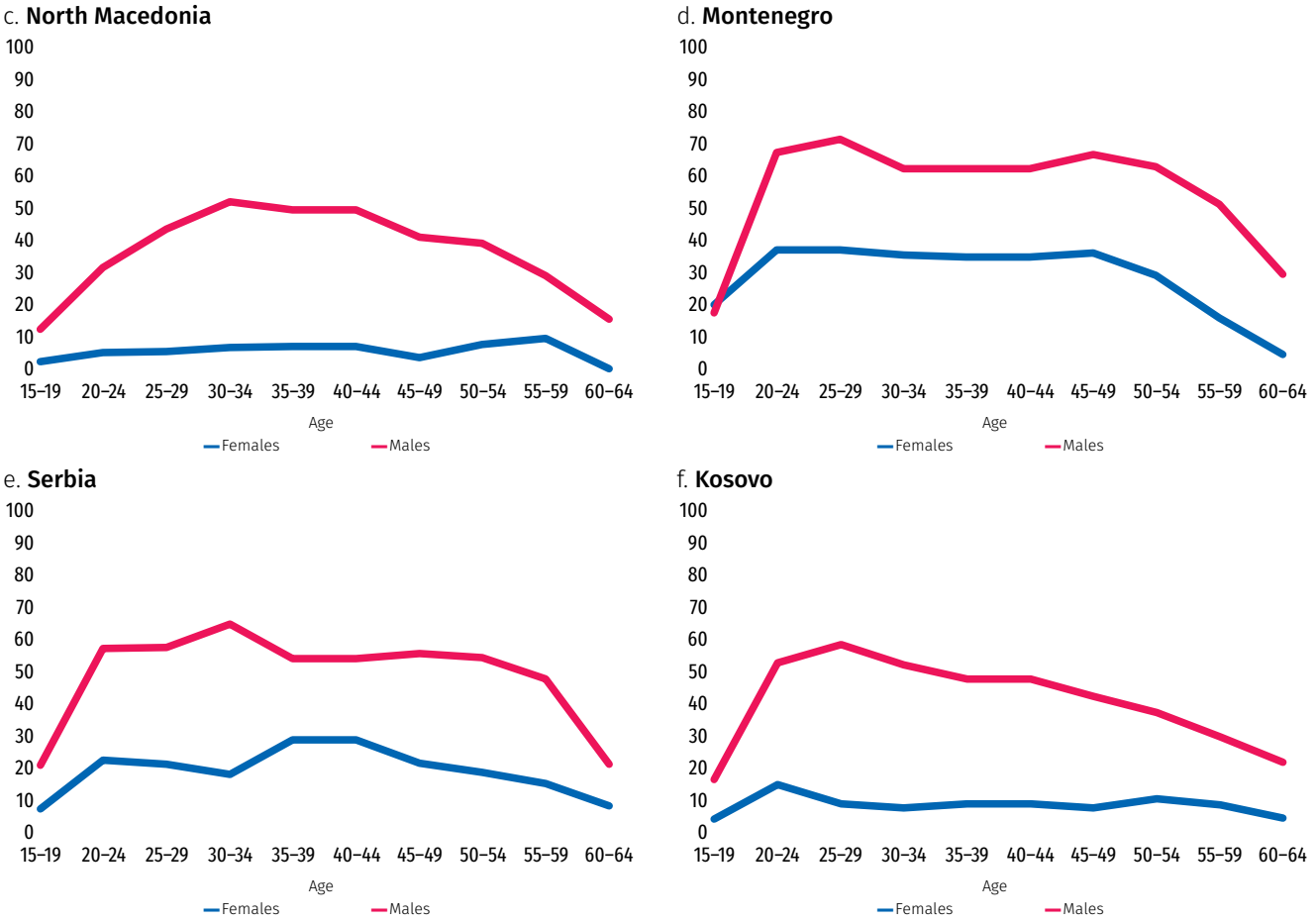


Figure 2.39. **Roma Females Participate Less in the Labor Force, Especially at Young Ages, When Family Formation Begins** (continued)

Labor force participation rate (% of population ages 15–64), Roma, by age-group and sex

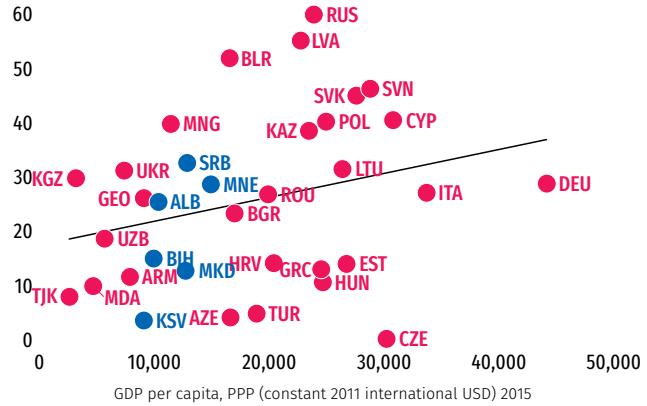


Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Labor force participation is usually measured for the population 15+; so, it includes employed or unemployed adolescents ages 15–17.

Expanding the coverage of good-quality, affordable childcare may boost female labor force participation. There is strong evidence in the literature that women's labor supply is positively correlated with the availability of affordable childcare and eldercare (Asai, Kambayashi, and Yamaguchi 2015; Borra 2010; Chevalier and Viitanen 2002; Lokshin 2004; Manley and Vásquez 2013; Maurer-Fazio et al. 2011). The provision of facilities, but also parental leave and subsidies for childcare may increase work attachment by lowering the share of women leaving their jobs after giving birth or by helping women reenter the labor market as their children grow. However, in many Western Balkan countries, the availability of institutional childcare centers is limited, even

Figure 2.40. **Use of Formal Childcare among the General Population Is Low, Particularly in Kosovo and North Macedonia**

Percent of population in households using institutional childcare needed



Source: World Bank estimates based on 2016 data of LiTS (Life in Transition Survey) (database), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html; World Development Indicators.

relative to countries at similar levels of development (Figure 2.40). This is especially the case in Bosnia and Herzegovina and in Kosovo. In Albania, the World Bank is supporting the identification of policies to encourage female participation in the labor market, including legal reforms to remove the barriers to economic empowerment among women.

Box 2.7. **Evidence on Childcare Responsibilities from the Qualitative Study in Serbia**

Both Roma and non-Roma men and women often claim there is no gap in domestic and childcare duties, both asserting that men participate regularly in household duties and bringing up children. However, more detailed discussions revealed that men rarely participate in undertaking domestic chores, and most of the burden of housework falls on women, whether employed or unemployed. The most common childcare duty men take up is playing with children. Older men respondents were clearer in their stance on household work: they saw domestic work as the woman's responsibility, while several younger women respondents who work or who are actively seeking or plan to seek jobs complained they were being assigned family duties that prevent them from pursuing full-time employment.

Household work continues to be the woman's responsibility. However, men are increasingly becoming more ashamed to admit that they are not involved in household work. This is even more evident through comparisons of the narratives of older men and the narratives of younger men. Older men are more willing to assert that the woman's place is in the household, while younger men are less eager to admit they do not help out in the household. Norms around the age of marriage are also shifting. Thus, parents recognize that a younger age at marriage has detrimental effects on education and job-seeking and say that they would try to dissuade the next generation from marrying early.

> *The most important thing for them is to finish school and university and find a job, any job they want. They should be free to choose their career paths, and they shouldn't marry young. I didn't have a choice, but I would give it to my children.*
>
> —Roma man, age 40–45, interview, Kamendin, Belgrade

Source: Majumdar and Woodhouse 2019.

Institutions and Limited Flexible Work Arrangements

Labor market institutions may influence the ability of households to generate income by affecting employability. Labor market institutions are associated with policy and interventions that affect the determination of wages and employment in labor markets. They may include labor unions and may support legislation on minimum wages, employment protection, job security regulations and contracts, unemployment insurance, and active labor market policies.

According to the RRS data, working-age Roma are more likely than their non-Roma neighbors to be registered with PESs. The share of the working-age Roma population registered with PESs varies widely across countries, ranging from 17 percent in Kosovo to 60 percent in Serbia (Figure 2.41). It is generally

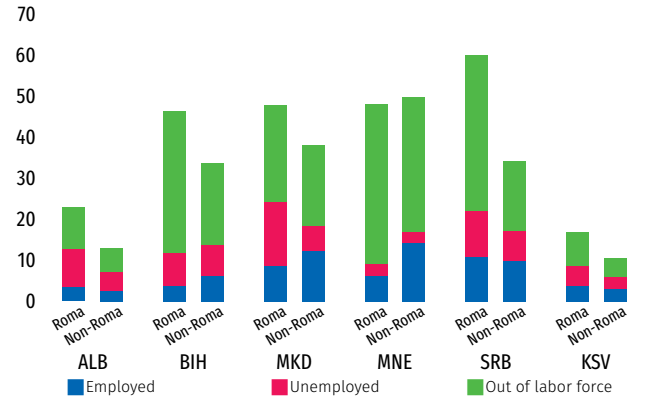
higher than that the share among neighboring non-Roma. The only exception is Montenegro, where non-Roma are more likely to be registered with PESs; a relatively large proportion are employed. The larger share of registered Roma may suggest Roma are not necessarily less likely to come into contact with possible resources to aid in labor market insertion. In most countries, however, the majority of Roma registered with PESs are out of the labor force.

Health insurance, rather than assistance in searching for work, is the key service accessed at PESs in countries with high Roma registration rates. In Bosnia and Herzegovina, North Macedonia, Montenegro, and Serbia, where Roma PES registration rates are high, close to or more than two-thirds of Roma registered with PESs for health insurance, while fewer than one-third register for assistance in finding jobs (Figure 2.42). In the two countries with lowest interaction rates between PES and Roma, namely Albania and Kosovo, PES clients visit job centers to request job-search assistance, and to a lesser extent unemployment benefits.

Although Roma may be more likely to be registered with PESs, they are affected by significant constraints in obtaining information on labor market opportunities. Even where opportunities are available (vacancies, PESs, and ALMPs), low-income workers and less-skilled young people find accessing them difficult because of information asymmetries. In North Macedonia, young Roma show low levels of awareness about the opportunities for training in information technology and languages offered by the National Employment Agency. This appears to explain much of the extremely low rate of participation among Roma in the pilot municipalities (Eptisa 2016). This suggests that the information meetings organized by local PESs have not succeeded in distributing information on the offerings of the National Employment Agency to a sufficiently broad segment of the unemployed population. Low awareness of ALMPs among Roma has also been documented in other Balkan countries. Evidence from the Bulgarian Longitudinal Inclusive Society Survey indicates that Roma are significantly less likely to participate in training programs (less than 2 percent versus 7 percent among all Bulgarians) and that lack of awareness of suitable training is the main reason for the lack of participation (World Bank 2013).

Figure 2.41. **Roma are More Likely to Be Registered with PESs, and Most Who Register Are Out of the Labor Force**

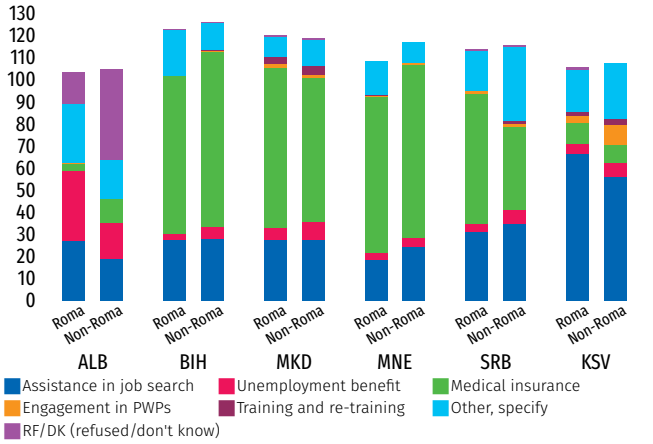
% of working-age population (ages 15–64) registered with PESs



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: National data were not available for comparison at the time of this study.

Figure 2.42. **In Many Countries, Health Insurance Is the Main PES Service Accessed**

% of working-age population (ages 15–64) accessing PESs, by type of service



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data
Note: Shares may sum to more than 100 percent because PES clients may register for more than one service.

Roma job-seekers are often serviced differently than other vulnerable clients of PESs. Roma are disproportionately channeled to public works programs that have little impact or a negative impact.[68] In Albania, for instance, public works have been proposed as a way to provide employment for registered Roma or Egyptian job-seekers through the involvement of the public sector (IPSED 2014). Less often, registered Roma job-seekers are offered training programs for traditional arts and crafts, reinforcing stereotypes and the exclusion from learning skills that are in demand on the labor market.

Few Roma job-seekers are engaged in ALMPs. In North Macedonia, 95 percent of Roma registered with PESs receive only job-search assistance, such as information on occupations that are in demand and on job vacancies and working conditions, assistance in drafting résumés, employment counseling, and development of individual employment permanent account number code cards. A small share are enrolled in training, mostly motivational training, but conversion rates from application to admission are small. In 2017, 187 Roma applied for certification of advanced information technology skills, but only 31 were admitted. Similarly, 420 applied for the training course on occupations in demand, but only 62 were admitted (ESARM 2017). Roma appear to be largely uninvolved in training programs. In Albania, the number of Roma job-seekers registered with PESs more than tripled between 2008 and 2014 (IPSED 2014). However, registered Roma job-seekers seemed to be less active compared with other job-seekers. Thus, they were less likely to participate in ALMPs, despite showing higher than average rates of employment after graduating from ALMPs (Box 2.8).

The findings of recent qualitative research suggest that Roma are often discouraged from looking for jobs if their job searching peers are continuously unsuccessful. Eptisa (2016) reports that the expectation of discrimination demotivates Roma job applicants. Indeed, private employers sometimes withdraw job offers after learning that the applicant is Roma.

Labor taxes are high in the region, especially for low-wage and part-time workers, two groups in which Roma are overrepresented; this may influence the hiring of these workers in the formal sector as well as labor force participation among Roma. The progressivity of labor taxation in the Western Balkans is low, which implies that a large tax wedge affects low-wage and part-time workers significantly more (Figure 2.43, panel a). Among both males and females, marginalized Roma are more likely than their non-Roma counterparts to take part-time jobs. In 2017, the share of part-time employment among employed Roma males ranged from 23 percent in North Macedonia (versus 8 percent among non-Roma males) to 51 percent in Serbia (versus 13 percent among neighboring non-Roma males). Among females, the share reached 62 percent in Montenegro (versus 15 percent among neighboring non-Roma females) (Figure 2.43, panel b). Low progressivity discourages individuals at the bottom of the earnings distribution and part-time workers from searching for formal sector jobs.

In addition to high labor taxes, rigid labor legislation in some countries may affect Roma; countries are adopting more flexible labor legislation, but some labor market legislation is still restrictive. For example, in Montenegro, part-time work must represent at least a fourth of a full-time schedule, that is, 10 hours a week. Employees with minor children have additional legal rights to flexible or part-time work arrangements. However, a new labor law proposal currently under consideration restricts part-time work even further, to a minimum of 20 hours, or half the full-time schedule, potentially affecting Roma significantly. In Serbia, the wage that determines social security contributions is not adjusted

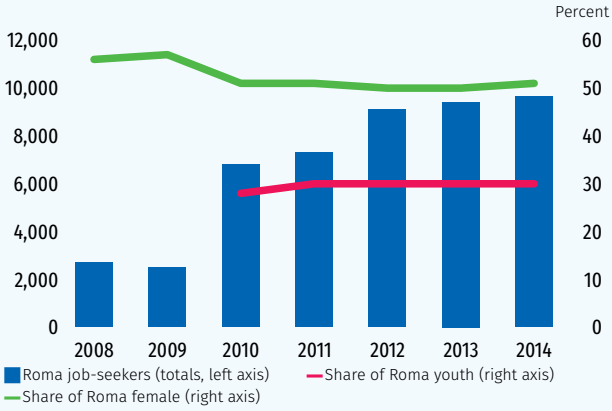
68 This is not the case in North Macedonia, and there is no information on Albania. At the time of a recent evaluation, there was no public works program in Albania (IPSED 2014).

Box 2.8. **Registered Roma Job-Seekers in Albania**

Between 2008 and 2014, the number of job-seekers registered with the Albanian PES was relatively stable, at around 142,000. Meanwhile, the number of registered Roma job-seekers rose from 2,706 in 2008 to 9,652 in 2014. This increase may be explained by several factors: the worsening economic situation after the 2008–09 global and financial crisis, the higher than average unemployment rates among Roma, and improvement in the relationship between PESs and Roma job-seekers. The share of female job-seekers among registered Roma, over 50 percent, was quite unusual for the region. The share of youth (15–29 age-group) among Roma job-seekers was higher than the national average of 27 percent, mirroring the younger age distribution of Roma (Figure B2.8.1).

While registered Roma represent 7 percent of PES clients, they only represent 5 percent of the beneficiaries of ALMPs. Half of Roma who participated in ALMPs benefited from the Job-Seekers in Difficulty Program, while the other half benefited from the On-the-Job Training Program.[a] Compared with other vulnerable groups, Roma are also less likely to participate in ALMPs. Among registered youth, 4.9 percent participate in ALMPs. The corresponding shares among registered women and registered Roma are 3.4 percent and only 1.8 percent, respectively.

Figure B2.8.1 **Number of Registered Roma Job-Seekers, Albania**



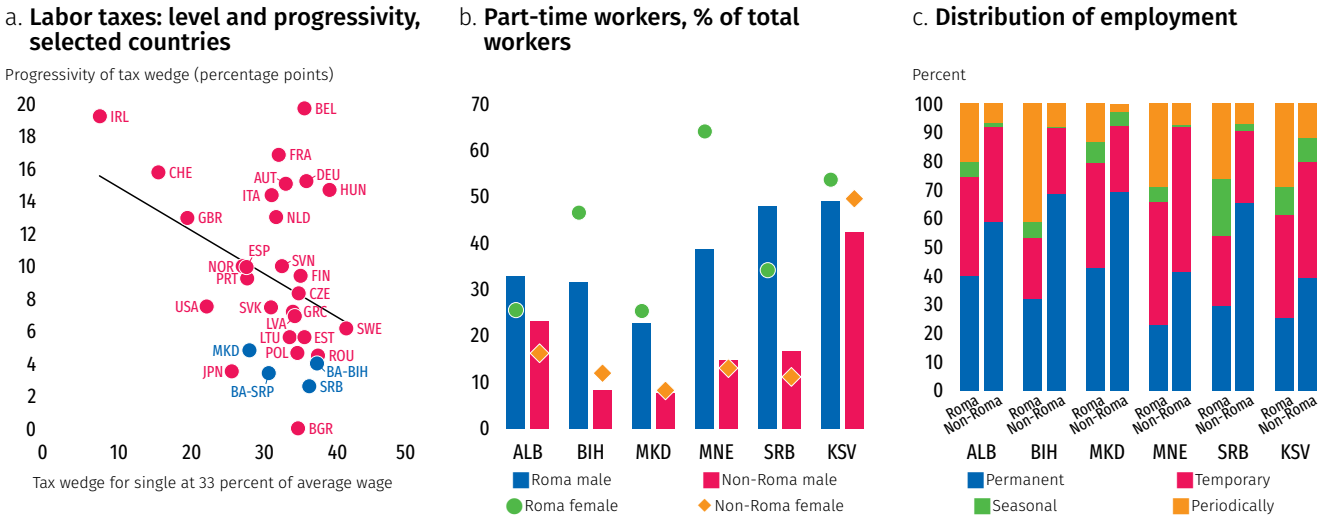
Source: IPSED 2014.

A comparison of the situation before and after the implementation of the ALMPs shows that, of the four vulnerable population groups (women, youth, persons with disabilities, and Roma and Egyptians), Roma constitute the group with the second highest retained employment rates. As of October 1, 2014, 88 percent of Roma who participated in the ALMPs were still employed, compared with 92 percent of women, 74 percent of youth, and 45 percent of persons with disabilities.

a. The Job-Seekers in Difficulty Program initially provided financial support to employers who assured temporary employment (three–six months) to unemployed job-seekers. The support involved 100 percent financing of social security contributions for the period of employment. If the employment period was longer than one year, the employer could benefit one minimum salary and social insurance contribution in the upcoming five months. Unemployed job-seekers in difficulty include long-term unemployed who receive social assistance, individuals who receive unemployment benefits, individuals entering the labor market for the first time, individuals ages 18–25, individuals over 45 who do not have more than secondary education or its equivalent, people with disabilities, Roma, and returnee migrants who face economic problems. The On-the-Job Training Program financially supports employers who guarantee the training of beneficiaries and hire a share of the trainees for at least one year each.

for the number of hours worked; so, part-time workers contribute disproportionately more than their full-time counterparts. This may be one reason part-time work is not more common among women in Serbia; lack of access to part-time work may hinder women from joining the labor market because they are likely to have caregiving responsibilities during regular working hours.

Figure 2.43. **The Tax Burden Disproportionately Affects Roma, Who Are Relatively More Likely to Take Low-Wage, Part-Time, Temporary, Seasonal, and Periodical Jobs**



Sources: Panel a: Arias et al. 2014, based on the tax and benefit model of the Organisation for Economic Co-operation and Development. Panel b: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Panel a: The tax wedge measures personal income tax and social security contributions paid by workers and employers as a share of total labor costs. The y-axis shows the progressivity of labor taxes, measured as the difference in the tax wedge between average and low-wage workers for a single person with no children at 100 percent or 33 percent of the average wage, respectively. Progressivity refers to the increase in the tax wedge in percentage points. The x-axis shows the tax wedge for low-wage earners (earning 33 percent of the average wage). Panels b and c: the sample is restricted to working-age individuals (15–64) who are in employment.

Among employed Roma, a larger share holds seasonal and temporary jobs, suggesting they face a lack of permanent job opportunities; if labor laws restrict part-time work, this may affect Roma disproportionately. Most Roma are in jobs that are temporary, seasonal, or periodical (Figure 2.43, panel c). In contrast, in all countries except Kosovo and Montenegro, the majority of their non-Roma neighbors hold permanent jobs. One reason for this discrepancy could be a preference for less permanent jobs among Roma; however, Roma are equally likely to report a preference for secure employment even if this implies lower pay. If legislation limits these types of contracts, this would affect Roma disproportionately.

Adverse Attitudes and Social Norms

Attitudes and social and community norms may have a strong influence on human, physical, and social capital decisions, but also employability by affecting the functioning of markets and institutions. They can affect the decisions around schooling, the hiring or wage decisions of firms, or the decisions of individuals to look for jobs and in particular sectors or professions. They can also have differential effects on the roles of men and women within the household in the Roma community.

The qualitative study in Serbia and subjective questions in the 2017 round of the RRS focused on perceptions and shed light on related issues. The quantitative survey included questions on attitudes and on the experience of discrimination. Complementary qualitative work documents the experiences of Roma men and women, gender norms, and differences in the well-being of men, women, boys and girls. In general, the qualitative work in Serbia suggests that gender norms, especially around work, schooling, agency, and time use, are starkly in favor of men in the control over resources and decision making within the household, working outside the home, and pursuing education. While the norms

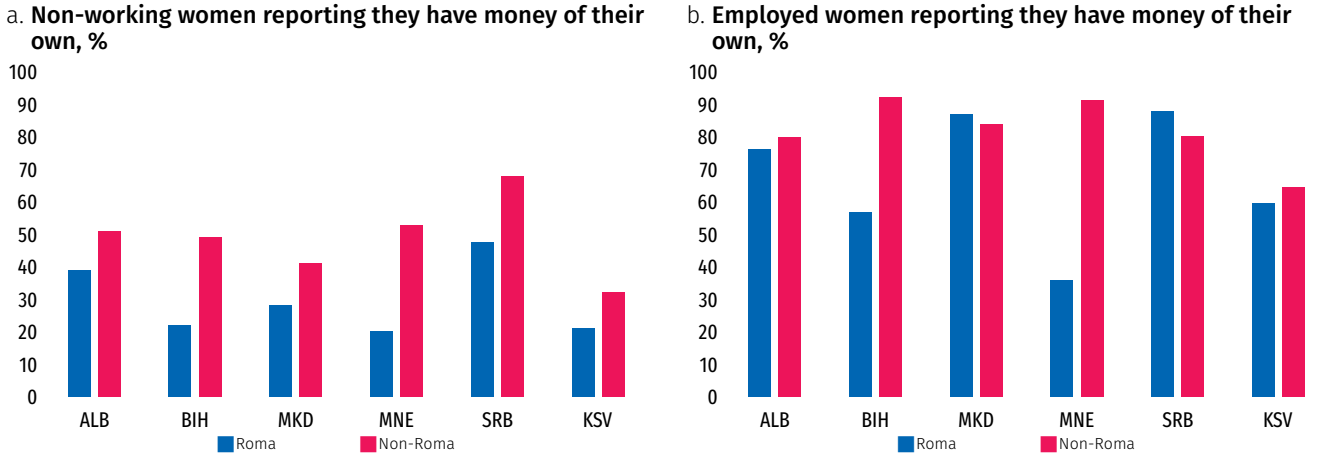
are similar among Roma and non-Roma, the gender norms are more pronounced in the case of Roma because of the specific structural barriers faced by Roma women (Majumdar and Woodhouse 2019).

Roma women face adverse attitudes in the labor market. Among both Roma and non-Roma, the idea of work is gendered and tends to exclude women. Domestic and unpaid work is rarely seen as work by men and is considered the domain of women. Men rarely participate in domestic chores, and a majority of the burden of housework falls on women whether they are employed or unemployed. "My wife does the typically woman chores" and "why should I work if my husband is providing for me?" are common statements. Women's mobility is a lot more constrained. Several women spoke of their limited mobility as a matter of pride and felt that it is linked to the accomplishments of their husbands as providers and protectors. Probing more deeply into what is considered work is a typical activity among men; women, even those working in the informal sector, are said to be coping or making ends meet. Women who are often engaged in informal entrepreneurial activities (selling produce or baking and selling goods, or hairdressing), seldom see themselves as working. Anthropological studies on women's work in the Balkans suggest that Roma women (much more than Roma men) rely on innovative methods to make ends meet, but identify these as coping or survival strategies rather than work or good jobs.

> *I search through dumpsters, gather what's valuable, prepare the goods, and go to the marketplace on my own. Often police and communal inspectors come to the marketplace and take away my goods. I would rather have a job instead! Mop the stairs, anything! I would clean anything, just to have some source of income besides welfare, so I can use the welfare payments only for the bills.*
>
> —Roma woman, age 40–45, women's focus group, Kamendin, Belgrade, February 11, 2018

There is a strong desire among Roma women to have decent jobs, but they become caught up in coercive webs of appropriate gendered behavior in public spaces and within the household.

Figure 2.44. **Roma Women Are Less Likely to Report They Have Money of Their Own, Even If One Controls for Employment**

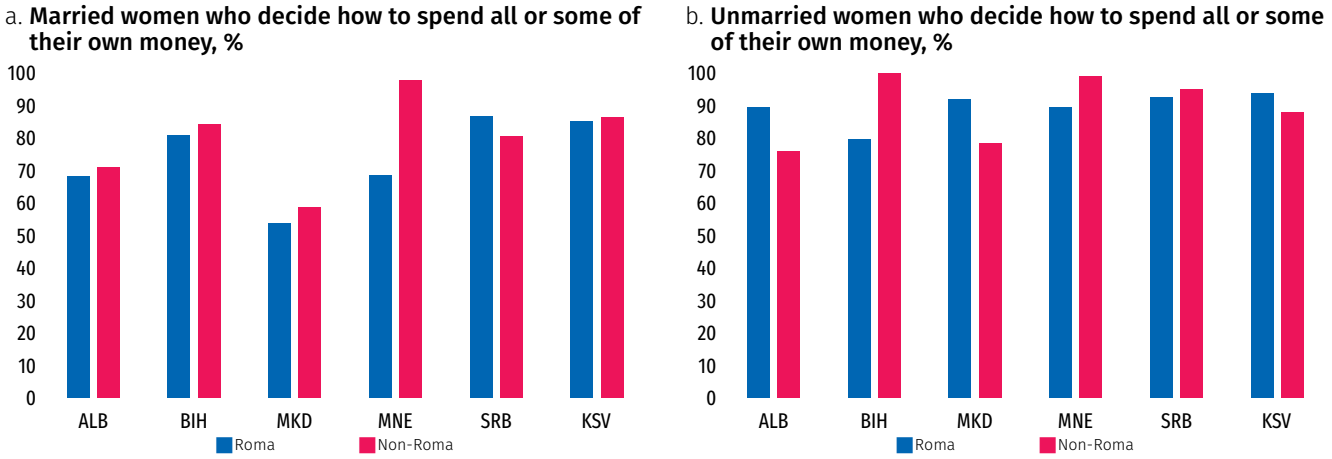


Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The panels show the responses of randomly selected female household members ages 16 and above; thus, the responses of minors are included.

The evidence of the RRS suggests that Roma women have less bargaining power and voice in financial decision making within the household than their men counterparts. Roma women ages 16 and above are much less likely to report that they have money of their own than their neighboring non-Roma

counterparts. For the most part, this holds true after one controls for employment, marital status, and age, suggesting that, in Roma households, women have less agency and that intrahousehold dynamics tend to favor men in Roma households more than in neighboring non-Roma households (see Figure 2.44, panel a and panel b for non-working and employed women). If Roma women who report they have money of their own are asked if they determine how to spend some or all of it, most say they do. The shares are, however, somewhat lower among married women, especially in North Macedonia (Figure 2.45, panel a and panel b). Between 13 percent (in Serbia) and 46 percent (in North Macedonia) of married Roma women have no control over money they consider to be their own. However, the data do not show a gap with respect to neighboring non-Roma counterparts except in Montenegro. Qualitative evidence on Serbia shows a more nuanced picture in intrahousehold dynamics whereby both men and women report they make decisions about household finances; however, men tend to have a greater say on child marriage and preserving women's virginity prior to marriage (Majumdar and Woodhouse 2019).

Figure 2.45. **Most Roma Women Report They Decide How to Spend Some or All of Their Own Money**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The panels show the responses of randomly selected female household members ages 16 and above; thus, the responses of minors are included.

Across countries, on employment, Roma males and females and their non-Roma neighbors share similar preferences. The great majority of Roma and non-Roma responded that they prefer to have secure, low-paid employment rather than insecure, higher-income employment (Table 2.2). Differences in the shares of Roma and non-Roma or of males and females expressing this preference are generally small. The great majority also said they would prefer secure employment eight hours a day, five days a week rather than insecure employment and the freedom to manage their own time. The differences relative to their non-Roma neighbors were only significant in Montenegro, where Roma were somewhat more likely to prefer more flexibility in employment (26 percent among males; 13 percent among females) than their non-Roma neighbors (8 percent among males; 8 percent among females). In Montenegro, females were less likely to prefer more flexible work; given that family responsibilities tend to fall upon females, this result is unexpected. The great majority of Roma who were asked if they preferred a higher standard of living at the cost of hard work, rather than relying on social assistance and encountering problems in making ends meet, preferred the former and showed only small differences relative to their non-Roma neighbors. The exception was Montenegro, where the share of Roma respondents expressing the first preference was smaller, especially among Roma females, relative to their non-Roma neighbors. About a third of respondents, both Roma and non-Roma in Albania, Kosovo, and North Macedonia, said they prefer to rely on social assistance rather

than hard work; in the other countries, the share of such responses hovered around a fifth. These shares in responses may signal either relatively generous benefits or a high valuation of the benefits. They may also signal inactivity traps that make it costly for an individual to move from inactivity to formal or informal employment because of high marginal tax rates, lower labor market earnings and returns to schooling, and generous social transfers.

Table 2.2. **Employment Preferences, Roma and Non-Roma, By Sex**

Option	ALB		BIH		KSV		MKD		MNE		SRB	
	Roma	Non-Roma	Roma	Non-Roma	Roma	Non-Roma	Roma	Non-Roma	Roma	Non-Roma	Roma	Non-Roma
Males												
Secure employment, but low pay	87	88	88	92	79	86	72	75	93	87	78	82
Higher income, but insecure and irregular	13	12	12	8	21	14	28	25	7	13	22	18
Secure employment 8 hours a day, 5 days a week, but without the freedom to manage time	85	81	81	82	79	77	71	68	74	92	83	81
Irregular employment, but freedom to manage time	15	19	19	18	21	23	29	32	26	8	17	19
Higher standards of living, at the cost of hard work	69	72	78	77	62	67	69	72	85	95	78	92
Living on social assistance, with problems making ends meet, but little effort	31	28	22	23	38	33	31	28	15	5	22	8
Females												
Secure employment, but low pay	85	84	89	91	85	84	77	74	86	96	79	87
Higher income, but insecure and irregular	15	16	11	9	15	16	23	26	14	4	21	13
Secure employment 8 hours a day, 5 days a week, but without the freedom to manage time	81	81	88	82	78	78	76	76	87	97	80	86
Irregular employment, but freedom to manage time	19	19	12	18	22	22	24	24	13	3	20	14
Higher standards of living, at the cost of hard work	66	66	77	83	63	65	72	71	68	93	79	82
Living on social assistance, with problems making ends meet, but little effort	34	34	23	17	37	35	28	29	32	7	21	18

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Data are based on responses from a randomly selected household member ages 16 or above. The numbers refer to the percentages preferring each option over the other.

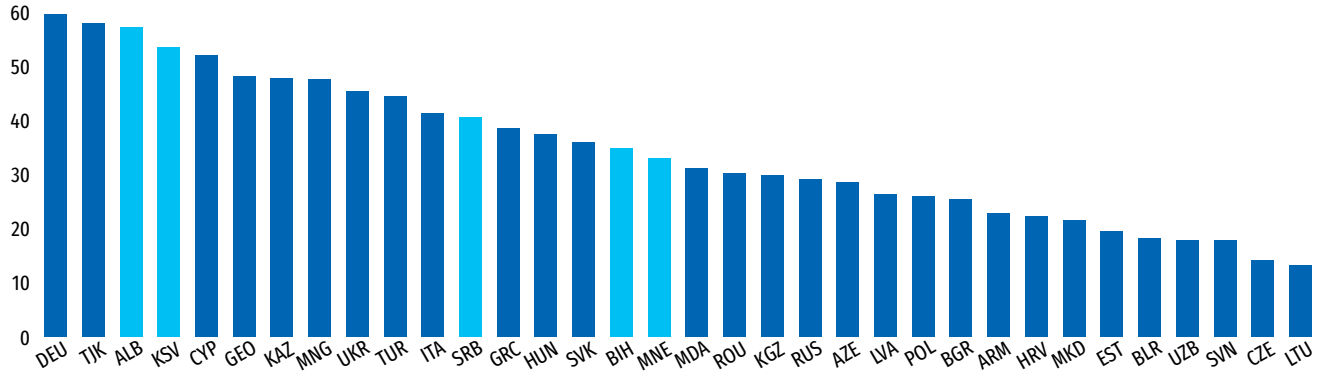
Geographical Mobility

Lack of labor mobility seems to represent an important constraint on obtaining high-quality jobs; substantial international migration occurs in most Western Balkan countries, but improving mobility within countries is important, especially among Roma, considering that many Roma live in deprived areas. Limited geographical mobility curtails access to high-productivity, high-wage jobs. Evidence on

countries in Europe and Central Asia suggests that incentives, demographics, and institutional factors may play a role. Older and aging populations, the socialist legacy, social benefits that disincentivize mobility, lack of skills, rigid labor market institutions, underdeveloped housing, and the liquidity constraints associated with frictional credit markets may also play a role (Arias et al. 2014). Less than half the unemployed are willing to move within the country for employment reasons in Serbia, North Macedonia, and Montenegro (Figure 2.46).

Figure 2.46. **Except in Albania and Kosovo, Most of the Unemployed in the Western Balkans Are Unwilling to Move within the Country for a Job**

Unemployed population ages 15–64 willing to move internally for employment, %

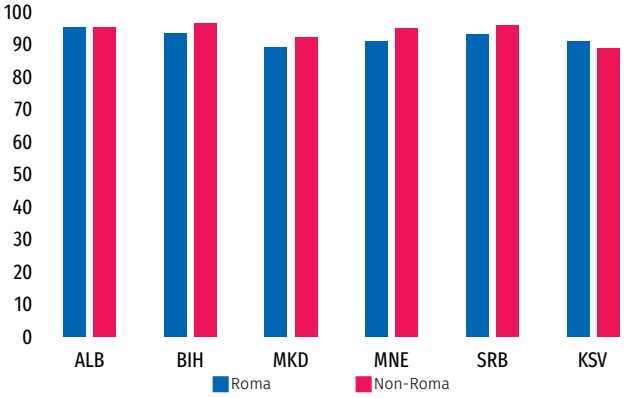


Source: World Bank estimates based on data of 2016 LiTS (Life in Transition Survey) (database), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.

Migration among Roma, at least within the country, is relatively low. Across countries, around 90 percent of Roma report having been living in the same town or village during the last five years (Figure 2.47). There are not significant differences relative to neighboring non-Roma. This contrasts with the stereotype according to which Roma are nomads. The data confirm general findings on the Western Balkans indicating that individuals tend not to migrate within their own countries. Indeed, few Roma report they had moved from another place (Figure 2.48, panel a). Montenegro is an exception; close to 60 percent of Roma there reported that they had moved from elsewhere. However, this exception is not associated with intracountry mobility because most such Roma said they had come from Kosovo; a large share were IDPs (Figure 2.48, panel b). The lack of mobility may be linked to high ownership rates. Countries with high home ownership rates tend to have underdeveloped rental markets, and homeowners are much less likely to be willing to move for work.

Figure 2.47. **Relatively Few Roma Households Migrated in the Previous Five Years**

Households living in the same town for the previous five years, %



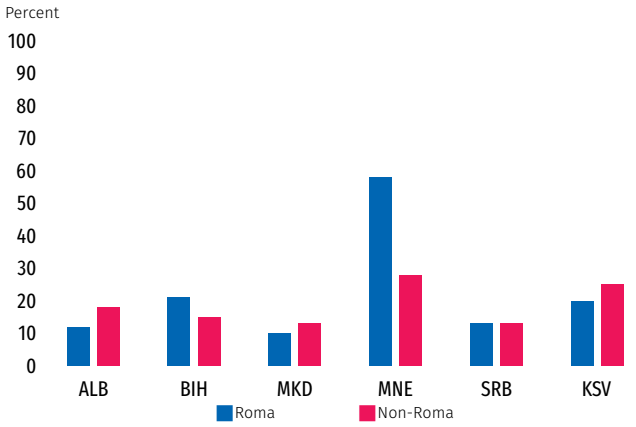
Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

A relatively large share of Roma, especially in Albania, Bosnia and Herzegovina, and Kosovo, would consider moving to another country. The RRS data do not allow a count among Roma who have already migrated outside the Western Balkans. However, the data do show that the share of Roma who would consider migrating is around 44 percent in Albania and 50 percent in Bosnia and Herzegovina

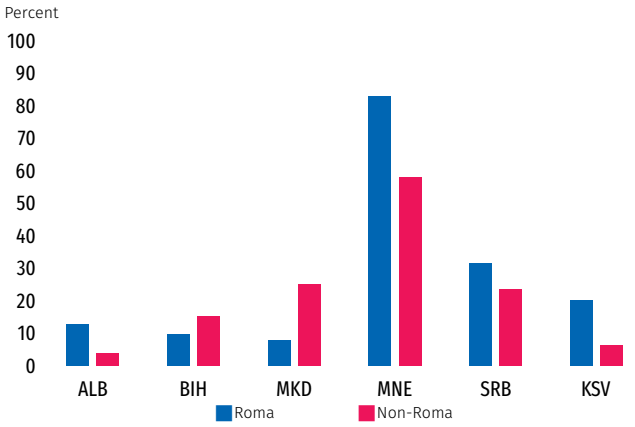
(Figure 2.49). This does not mean these people will eventually migrate and remain abroad, but their willingness to do so signals possible future emigration and a continuation of back-and-forth migratory patterns between the Western Balkans and the EU as migrant Roma return to their countries of origin.

Figure 2.48. **Although Most Roma in Montenegro Report They Had Moved from Elsewhere, Most Had Moved from Kosovo**

a. **Share who moved from elsewhere**



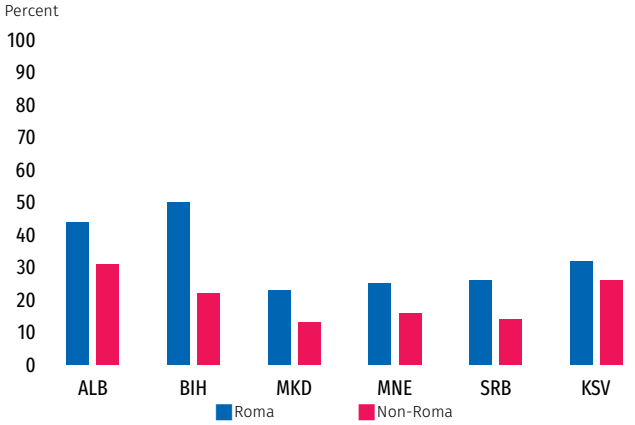
b. **Among those who moved from elsewhere, share who moved from another country**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Figure 2.49. **Many Roma Would Consider Moving to Another Country for Work**

Share who would consider moving to another country



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The figure shows the share of randomly selected respondents ages 16+ who answered "yes" when asked if they would consider moving to another country.

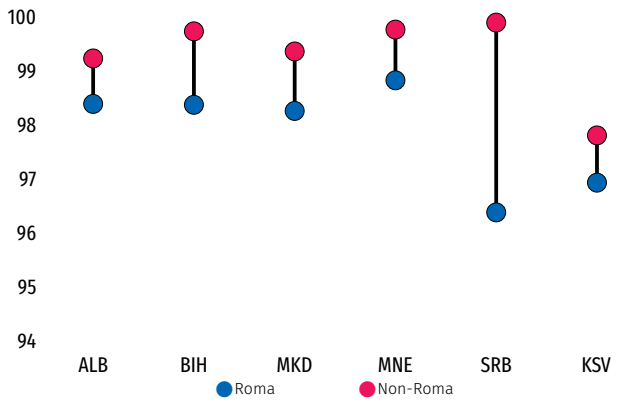
Documentation

In the Western Balkans, the burden and costs associated with civil registration are sometimes substantial and disproportionately affect Roma communities. In Serbia, for example, the lack of disposable income to pay the high fees for naturalization (birth registration procedures are provided free), identification cards, or legal assistance is a prohibitive barrier for many Roma. The only solution for them is to rely on legal assistance provided by nongovernmental organizations (NGOs) (ERRC, ENS, and ISI 2017). In Montenegro, there are still unregistered IDPs whose status is uncertain. The IDP status was supposed to be phased out by January 2015. No provisions have been made for the remaining IDPs who have not yet applied for foreigner status; yet, there are still almost 1,500 people in this situation, most of them internally displaced from Kosovo. Only a portion of the IDPs willing to go back to Kosovo have managed to do so. Greater awareness about registration is needed, especially in the Albanian and Romani languages (World Bank 2016b). Roma communities in Kosovo struggle especially with complicated and expensive civil registration procedures, accompanied by the occasional requirement of property ownership. It is illegal in Kosovo for officials to demand the payment of property taxes before they issue civil documents, but the lack of local administrative capacity results in the occasional unlawful practice (OSCE 2012).

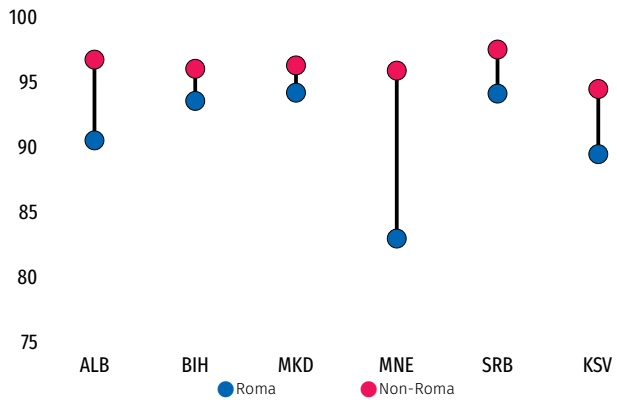
RRS results show that many Roma lack civil documentation, which remains a major barrier to access to services and formal jobs. The lack of access to documentation among Roma is especially salient in Kosovo and Montenegro, where only 90 percent and 83 percent of Roma ages 16 and above reported that they have identity cards (Figure 2.50, panel b). This lack of identification may impede access to services such as health care and housing. Even if it does not necessarily represent a barrier to obtaining an education, it may become an obstacle at graduation. The lack of legal residence can also hinder access to services. In Serbia, the 2011 Declaration of Place of Residence allowed people who did not have legal residence, because, for example, they were living in informal settlements, to access social services by using the address of the nearest social welfare office as their legal residence. "Baby, Welcome to the World," a government-sponsored project, was also launched to simplify birth registration by allowing parents to register the births of their children directly in maternity wards, thereby saving them money and time. The RRS findings show a relatively expansive coverage of birth certification among Roma across all countries, including Serbia, though it is still not universal (Figure 2.50, panel a). Because not all Roma give birth in hospitals, more must be done to reach out to Roma communities to ensure all births are registered. Documentation is also a barrier to accessing justice. For instance, in Albania, although there is a legislative provision for free legal aid, the aid is inaccessible to many Roma because they do not possess the documentation required to prove residence or income and therefore establish their eligibility to receive the state-funded legal assistance (ERRC, ENS, and ISI 2017).

Figure 2.50. **Roma Are Less likely to Have Proper Documentation**

a. **Share of population possessing birth certificates, %**



b. **Share of population ages 16+ possessing identity cards, %**



Source: World Bank estimates based on weighted 2017 Regional Roma Survey data.

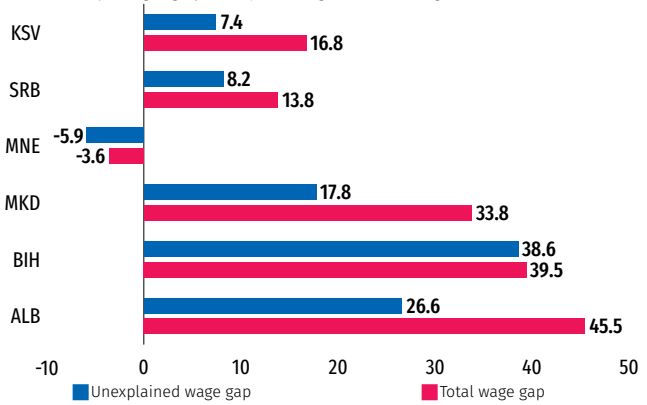
Access to documentation is an issue that disproportionately affects returnee children, many of whom are Roma. A qualitative study on returnees funded by DG NEAR and implemented by the World Bank shows that many returnee Roma children have benefited from schooling inside the EU and are considered by their teachers as educational champions (World Bank 2019). However, lack of documentation and certification often leads to delays in the enrollment of children in formal education systems or the enrollment of students in classes that do not reflect their schooling in the EU.

Returns to Assets

There are significant earnings differences between Roma and non-Roma; Albania and Bosnia and Herzegovina exhibit the largest differentials.[69] The widest earnings differentials occur in Albania, where non-Roma neighbors earned an average of 45.5 percent more an hour than Roma, followed by 39.5 percent in Bosnia and Herzegovina, and 33.8 percent in North Macedonia (Figure 2.51). In Kosovo and Serbia, the hourly wage gap is significantly smaller; non-Roma earn 16.8 percent and 13.8 percent more than Roma, respectively. In Montenegro, there is a negative wage premium that affects non-Roma, who earn an average of 3.6 percent less an hour than Roma. This arises because of differences in hours worked between the two groups. Earnings on a monthly basis in Montenegro are greater among non-Roma, but this is not the case if one controls for hours worked; non-Roma work significantly more hours than Roma.

Figure 2.51. **The Large Earning Differentials between Roma and Non-Roma Are Mostly Unexplained by Observable Characteristics**

Real hourly wage gap, % of average Roma wage



Source: World Bank estimates using unweighted 2017 Regional Roma Survey data.
Note: Data are not weighted because the Nopo decomposition cannot account for weighted wage differentials.

In Bosnia and Herzegovina, a significant portion of the wage gap cannot be explained by differences in observable characteristics that the labor market rewards; this suggests that differences in the returns to these characteristics, usually interpreted as discrimination, are critical. Nonparametric matching helps explain real hourly earnings differentials between Roma and their non-Roma neighbors (Box 2.9). If one conducts a decomposition of the associated gap after controlling for several characteristics, one finds that, in Bosnia and Herzegovina, 98 percent of the gap remains unexplained and can be attributed to differences in the returns to these characteristics, partly discrimination. This indicates that, if Roma had the same characteristics as non-Roma, the wage gap would only be reduced by a little, from 39.5 percent to 38.6 percent. This is the largest unexplained wage gap in the region. Differences in characteristics between Roma and non-Roma in the common support explain only 4 percent of the wage gap; thus, only a small portion of the gap arises because of differences in the common support, that is, a large share of non-Roma exhibit individual characteristics that are not exhibited by any Roma counterparts and vice versa.[70]

The extent of apparent discrimination is significantly lower in Albania and Serbia than in Bosnia and Herzegovina. In Serbia, 59 percent of the wage gap remains unexplained. So, if Roma had the same characteristics as their non-Roma neighbors, the wage gap would be reduced by less than half, from 13.8 percent to 8.2 percent. In Albania, the wage gap would be reduced from 45.5 percent to 26.6 percent, a reduction of 18.9 percentage points.

69 For kernel density estimates of Roma and non-Roma wage distributions, see Appendix E, Figure E.1.
70 It is possible to identify combinations of individual characteristics among Roma, but not non-Roma and vice versa. These represent differences in the supports of the empirical distributions of individual characteristics among Roma and among non-Roma.

Box 2.9. **Nonparametric Decomposition of Ethnic Hourly Earnings Differentials**

The main difference between this methodology and the traditional Blinder-Oaxaca methodology is that this nonparametric approach accounts for differences in the support of the distributions of observable characteristics and provides insights into the distribution of unexplained ethnic pay differences. This alternative to the Blinder-Oaxaca decomposition does not require the estimation of earnings equations and divides the gap into four additive elements. Two of these are analogous to the elements of the Blinder-Oaxaca decomposition (but computed only over the common support of the distributions of characteristics), while the other two account for differences in the supports.

The approach involves the following steps.
Step 1: Select a Roma individual (without replacement from the sample).
Step 2: Select all non-Roma individuals who have the same characteristics as the Roma individual selected in step 1.
Step 3: Construct a synthetic non-Roma individual whose synthetic outcome variables (that is, real hourly earnings) are equal to the average of all individuals selected in step 2 and match the synthetic non-Roma to the original Roma individual selected in step 1.
Step 4: The observations of both individuals (the synthetic non-Roma and the Roma individual selected in step 1) are part of the new sample of matched individuals.
Repeat steps 1–4 until the original sample of Roma individuals is exhausted.

The application of this approach results in a sample of three sets of individuals, as follows:

- A set of non-Roma whose observables cannot be matched to those of any Roma in the sample
- A set of Roma whose observable characteristics cannot be matched to those of non-Roma in the sample
- A set of matched individuals (Roma and non-Roma), in which the distribution of observable characteristics is the same

The difference in average hourly earnings of Roma and non-Roma as a percentage of Roma outcomes is decomposed into four elements, as follows:

- The share of the gap associated with differences in observable characteristics in the common support
- The share of the gap caused by existence of non-Roma individuals with a combination of characteristics that are not met by any Roma
- The share of the gap caused by the existence of Roma individuals with a combination of characteristics that are not met by any non-Roma

The share of the gap that is not explained by the previous three shares and that therefore can be attributed to discrimination

Source: Ñopo 2008.

In Kosovo and in North Macedonia, the unexplained pay differences, which can be partly attributed to discrimination, are smaller, but still important. In North Macedonia, the unexplained wage gap is 17.8 percent, representing 53 percent of the observed wage gap, while, in Kosovo, it is 7.4 percent, accounting for 44 percent of the observed wage gap. In Kosovo, in contrast to other countries, the majority of the wage gap arises because of the existence of non-Roma individuals with a combination of characteristics that are highly rewarded in the labor market, but that are not shared with any Roma.

These results are robust to different specifications, suggesting that, in most countries, a large share of the wage gap is still attributable to differences in rewards and not to observable characteristics. Because the extent to which the ethnic wage gap can be explained depends on the number of explanatory variables included, several specifications were run to test the variation in the size of the unexplained component that can be interpreted as discrimination. Across specifications, a significant wage gap persists after one controls for observable characteristics, implying that discrimination may contribute to differences in earnings between Roma and their non-Roma counterparts. Montenegro is an exception; survey data on Montenegro do not suggest that Roma earn less per hour than their neighboring non-Roma counterparts. The results are shown in Appendix E, Table E.12.

In addition to understanding the causes of earnings differentials and the extent of discrimination in the labor market, it is critical to understand whether returns to schooling are also different between Roma and non-Roma because this may partly explain why Roma are opting for less education. Estimates of the returns to schooling are a useful indicator of the productivity of education. Higher expected returns provide incentives for individuals to invest in their own human capital. The optimal number of years of schooling increases with the returns to human capital and decreases with the cost of schooling. If returns are close to zero or there is sufficient uncertainty about the returns, in addition to difficult access to schools (for example, because of the distance to the nearest school or because of school fees), then it may be a fully rational decision not to proceed further in schooling.

Not only are Roma adults, on average, less well educated than their non-Roma neighbors, but they also tend to receive significantly lower marginal earnings in the labor market for each additional year of schooling. Average returns to schooling among Roma vary between null and 3.4 percent.[71] This is well below the average accruing to their non-Roma neighbors and the average in Europe and Central Asia, estimated at 7.8 percent (Figure 2.52, panel a and panel b).[72] Returns to schooling among Roma in North Macedonia and in Serbia are the highest in the Western Balkans, reaching 3.4 percent and 2.3 percent, respectively. In all other countries, they are not statistically significant from zero. Among non-Roma neighbors, the returns are significantly higher and closer to the average returns in Europe and Central Asia, varying from 3.7 percent to 7.8 percent in Montenegro and Serbia, respectively (Box 2.10). Figure 2.52, panel a, provides estimates and other evidence of the returns to education among Roma and their non-Roma neighbors and regional and global averages (Patrinos 2016).[73]

71 The small number of highly educated Roma in the dataset can dramatically skew the estimated returns to education among Roma (Cahuc and Zylberberg 2004). This problem cannot be easily solved because, if the outliers are excluded from the sample, the estimates will reflect the returns to schooling of Roma at the bottom of the education distribution.

72 Returns to schooling refer to the earnings premium received by a working individual at each level of education. These returns do not take into account other important factors in the decision to attend school, such as the direct and indirect costs of schooling, taxes, the length of working life, and uncertainty about future returns.

73 Figure 2.52 shows the coefficients of a standard ordinary least squares Mincer regression wherein the dependent variable is the log real hourly wage of each individual, while the independent variables are years of schooling, experience, and experience squared. The work experience used is self-reported and not the standard proxy (age, minus six, minus years of schooling) because the use of this proxy results in an overestimate given that many Roma tend not to start work immediately after finishing school.

Box 2.10. **Estimating Returns to Schooling**

The standard method of estimating private returns to schooling is to estimate a log earnings equation of the form:

$$Ln(w_i) = a_0 + b_1 S_i + b_2 X_i + b_3 X_i^2 + e_i, \quad (B2.10.1)$$

where w_i is the real hourly labor income for individual i; S_i is years of schooling (as a continuous variable); X_i is labor market experience (defined as self-reported); X_i^2 is experience squared; and e_i is a random disturbance term reflecting unobserved abilities. Here b_1 can be seen as the average private return rate of schooling to employment income in nonagricultural sectors.

The continuous variable of schooling years can be converted into dummies to estimate the return rate to the education level. The estimation equation is thus of the form:

$$Ln(w_i) = a_0 + b_1 Dgeneral_i + b_2 DUsecondary_i + b_3 Dtertiary_i + b_4 X_i + b_5 X_i^2 + e_i, \quad (B2.10.2)$$

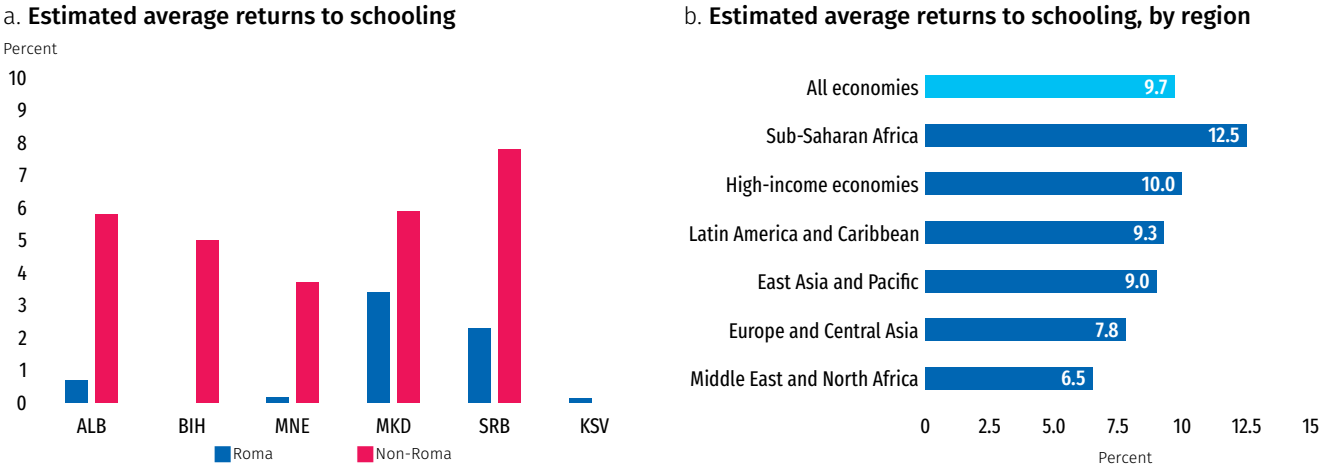
where $Dgeneral_i$, $DUsecondary_i$, and $Dtertiary_i$ are dummy variables for general education (lower-secondary), upper-secondary, and tertiary education. General or lower-secondary refers to individuals who have completed general or basic education (nine years of schooling). Upper-secondary education refers to high school, which normally takes an extra two or three years after general education. Tertiary indicates a bachelor's degree or higher, which requires at least four extra years to complete. The omitted variable is people with less than nine years of schooling. A dummy for primary education is not included because those individuals cannot be reliably identified in the survey. The sample is taken from the 2017 round of the RRS. The sample is restricted to individuals ages 15–64. In the regression, labor income is collected monthly, but converted to hourly income in 2010 constant prices for all countries. Years of schooling are assigned based on the highest level of education completed by individuals.[a] This specification assumes linearity in schooling, that the returns to experience are the same at each educational level (no heterogeneous experience premiums). Additional variables are not added to maintain comparability with previous estimates of the returns to schooling in the literature. Also, no control is carried out for sample selection, unobserved ability. or endogeneity of schooling.

a. The typical education system in the Western Balkans requires 4 or 5 years to complete primary education, 8 or 9 years to complete general or basic education (lower-secondary); 11 or 12 years for upper-secondary or vocational education; 16 years to obtain a bachelor's degree; and 17 years or more to complete postgraduate studies.

These findings imply that narrowing the human capital gap between Roma and non-Roma may not be sufficient to provide fair chances in the labor market given that different returns to human capital signal unequal treatment. Governments need to persist in efforts to invest in the education of Roma, but encouraging Roma to obtain an education must also be an investment option. Thus, sensible policies affecting the returns to schooling (for instance, addressing the quality of education and the financial constraints) and tackling discrimination are fundamental. The timing of these policies is also important. The returns to schooling tend to emerge slowly over time, which means that, if policies are undertaken now to increase the returns to schooling significantly among Roma, it may be many years

before Roma catch up with their non-Roma neighbors. In the short run, the returns to schooling tend to change little, by no more than two percentage points in each decade.

Figure 2.52. **Average Returns to Schooling Are Less among Roma Than Neighboring Non-Roma and the Average in Europe and Central Asia, Except in Serbia**



Source: Panel a: World Bank estimates based on weighted 2017 Regional Roma Survey data. Panel b: Patrinos 2016.
Note: These estimates represent the percentage increase in hourly earnings as a result of an additional year of schooling. The Roma sample includes all workers. This is considered a private return because it only accounts for the opportunity costs while in school.

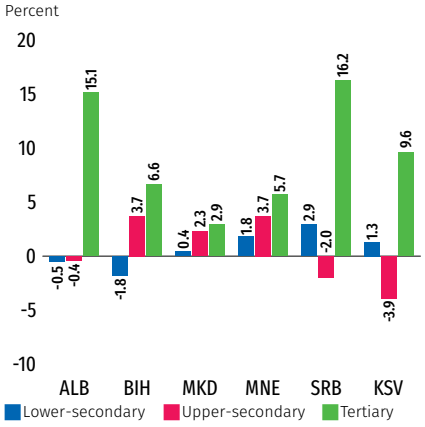
The evidence shows average returns to schooling across educational levels, but it is also informative for policy makers to understand the returns by educational level, to see where the larger ethnic gaps are, and to understand which educational levels should be prioritized. The results must be interpreted with caution, however. The highest returns to schooling among Roma are in tertiary education. Expanding tertiary education is therefore important. This should not, however, come at the expense of primary education because primary education is a fundamental service, and access to primary (and secondary) education is a prerequisite for entry into tertiary education.

Among Roma, there is an earnings premium associated with higher educational attainment, but the premium is low relative to global averages, possibly reflecting either the poor quality of education or other factors (such as discrimination); tertiary education remains a positive, significant, and profitable investment among Roma. Globally, the returns to tertiary education are the highest (around 17 percent), followed by primary (10 percent) and secondary schooling (7 percent) (Figure 2.53, panel c). A look at the returns by educational level among Roma reveals that the returns to lower- and upper-secondary education are low, while the returns to tertiary education are significantly higher (Figure 2.53, panel a; see Box 2.10 for methodological details). Returns to lower-secondary education are close to zero in most countries and negative in Albania and in Bosnia and Herzegovina.[74] The returns to upper-secondary schooling are also relatively low among both Roma and non-Roma, except non-Roma in Serbia, where returns reach 8 percent.[75] Returns to tertiary education are significantly higher especially among Roma. On average, the returns to tertiary education among Roma are lower than the global averages, but much closer to the Europe and Central Asia regional averages, reported at around 10.1 percent (Montenegro and Patrinos 2014). In some countries, the tertiary education returns to Roma even reach close to global averages (15.1 percent in Albania and 16.2 percent in Serbia).

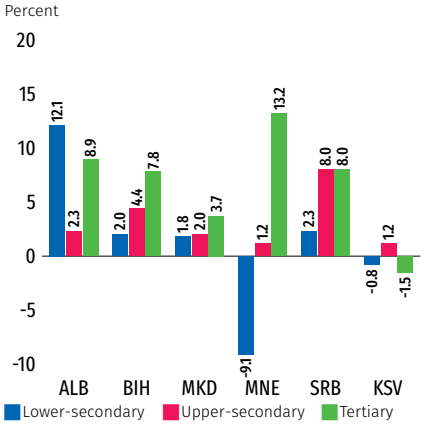
74 This is similar to the pattern observed among non-Roma neighbors, except in Albania, where returns among non-Roma are close to 12.1 percent.
75 The returns to primary schooling are not estimated because this education level cannot be identified in the 2017 round of the RRS.

Figure 2.53. **Among Roma, Returns to Tertiary Education Are the Highest, and Returns to Lower-Secondary and Upper-Secondary Education Are Small**

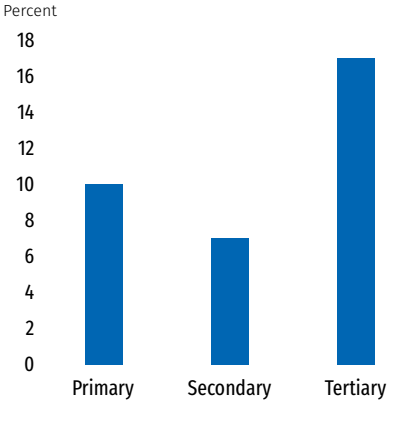
a. **Estimated returns to education, by level, Roma**



b. **Estimated returns to education, by level, non-Roma**



c. **Global average returns to education, by level**



Source: Panels a and b: World Bank estimates using weighted 2017 Regional Roma Survey data. Panel c: Patrinos 2016.
Note: Red indicates that the following estimates of the returns to schooling are statistically different from zero with p-value <0.1. Returns to lower-secondary education rather than primary are estimated because the 2017 RRS does not allow individuals to be identifed who have completed, at most, primary education.

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3. Changes in Coverage and Inequality Over Time

Key Messages

- In the averages across the five priority areas, Regional Roma Survey (RRS) data indicate little progress in coverage or access to basic services and economic opportunities among Roma in the five countries on which data from the 2011 and 2017 RRS rounds are available. There is no evidence that gaps are narrowing relative to non-Roma neighbors. In 2017, Kosovo stood out for the narrowness of the gaps compared with other countries.
- There has been improvement in average education coverage in all countries on which 2011 and 2017 data are available, but the road ahead is still long: coverage is less than half among Roma relative to their non-Roma neighbors. Improvements in education have centered on compulsory and upper-secondary education. The data suggest that education policy interventions may be having an impact on enrollment in compulsory education in all countries with the exception of North Macedonia and of Serbia; policy interventions may also explain the improvements in compulsory and upper-secondary education completion rates in the latter two countries. However, more research is needed to establish true causality.
- Deterioration has been significant in average labor market indicators in all countries except North Macedonia; the ethnic gaps are still wide in all countries and worsened in Albania and Montenegro. In most countries, the deterioration is driven by falling labor force participation and declines in employment. Changes in the characteristics of Roma between the two survey years do not explain the deterioration in labor markets; this suggests that changes in unobservables, such as discriminatory practices, social norms, and skills not captured by education, or changes in demand for unskilled labor may have led to these results.
- Average changes in health coverage and inequality have been small and not statistically significant in most countries, except in Montenegro, where they worsened. Albania and Kosovo stand out, given the relatively lagging coverage in health, mostly because of low health insurance coverage. Access to health care is especially limited in Albania. Across countries, the self-reported unmet need for medical care generally improved, whereas self-perceived health worsened. The coverage of identity cards may explain the drop-off in health insurance observed in Montenegro, whereas, in Albania, the decrease has been driven by a contemporaneous fall in employment.
- In housing and access to essential services, most countries improved in average coverage; inequality offers a mixed picture. Urban Roma were important drivers behind changes in access to services, whereas the contribution of the employment status of the household head varies across countries. Improvements in overcrowding were mostly driven by demographic change (smaller households) though there is also evidence of Roma inhabiting larger dwellings.
- Most countries have seen improvements in coverage and inequality in documentation; however, given already high coverage and low inequality in 2011, only relatively small changes are observed.

This chapter examines how marginalized Roma have fared in service coverage and access, economic opportunities, and inequality relative to their non-Roma neighbors during the years between the 2011 and 2017 rounds of the RRS. Progress toward the goals in five priority areas designated by the Directorate-General for Neighbourhood and Enlargement Negotiations (DG NEAR) of the European Commission (EC) for Roma inclusion—education, labor markets, health, housing, and documentation—is examined in the five Western Balkan countries for which 2011 and 2017 RRS data are available. The 2017 data on for Kosovo, which was not included in the 2011 RRS round, are compared with the 2017 data on the other five Western Balkan countries.

Policy Questions and Methodology

This chapter focuses on answering two questions related to changes in coverage and inequality among the Roma population between 2011 and 2017 in five of the six countries of the Western Balkan. (Kosovo was only included in the 2017 RRS round.)

How have the Roma fared in the coverage of and access to basic services and economic opportunities is the first question. In each country did average coverage or access among the Roma increase or decrease in each priority area between 2011 and 2017?

Are the gaps in coverage and access between marginalized Roma and neighboring non-Roma narrowing or widening is the second question.

To answer these two questions, a set of core indicators on coverage and access are calculated in each priority area based on the 2011 and 2017 surveys.[76] The core indicators, selected in conjunction with DG NEAR and the United Nations Development Programme (UNDP), represent key aspects within each priority area that are highly relevant in monitoring Roma inclusion. The relative ability to calculate comparable indicators using both the 2011 and 2017 RRS rounds was also taken into consideration in selecting each indicator. A total of 24 indicators were selected, ranging from two indicators on the area of documentation to seven indicators on the area of education. Table 3.1 lists the core indicators by priority area. Appendix B provides indicator definitions, as well as notes on comparability between 2011 and 2017.

76 In this section, coverage refers to access to basic services and economic opportunities. The enrollment rate in primary education, for example, refers to the share of children ages 3–5 who are covered by or have access to this service. For labor market indicators, coverage refers to access to economic opportunities. In the case of the unemployment rate, informal employment, the not in employment, education, or training (NEET) rate, the self-reported unmet need for health care, waste never collected, and the overcrowding rate, a decrease in the indicators is considered a sign of a decline in deprivations among Roma, and such a decline is referred to as an increase in coverage.

Table 3.1. **Core Indicators to Monitor Coverage and Access among Roma and Gaps Relative to Non-Roma Neighbors, 2011 and 2017**

Priority area	*Indicator*
Education	Net preprimary enrollment rate (ages 3–5)
	Adjusted net compulsory education enrollment rate (ages 7–15)
	Completion rate in compulsory education (ages 18–21)
	Upper-secondary education completion rate (ages 22–25)
	Tertiary education completion rate (ages 26–29)
	Students attending majority Roma schools (%, ages 7–15)
	Students attending special schools (%, ages 7–15)
Labor markets	Labor force participation rate (ages 15–64)[a]
	Employment-to-population ratio (ages 15–64)
	Unemployment rate (% of total labor force, ages 15–64)[a]
	Informal employment (% of total employment)
	Not in employment, education, or training (NEET) (ages 15–24)
Health	Health insurance coverage (ages 16+)
	Self-reported unmet need for medical care (% of population ages 16+)
	Self-perceived health (% of population ages 16+ reporting good or very good health)
	Use of preventive health care services (% of population ages 16+)
Housing	Electricity (% of population)
	Piped water inside the dwelling (% of population)
	Connection to public sewerage or waste water tank (% of population)
	Waste never collected (% of population)
	Rooms per household member
	Overcrowding rate (% of population)
Documentation	Birth certificate (% of population)
	Identity card (% of population ages 16+)

Source: World Bank.
Note: For indicator definitions and a discussion of comparability between the 2011 and 2017 surveys and robustness checks, see Appendixes B and D.
a. Not strictly comparable between 2011 and 2017.

As a next step, two composite indexes are developed, the Roma coverage index and the Roma inequality index, to summarize access to basic services, economic opportunities, and gaps between Roma and non-Roma within each priority area in each country in 2011 and 2017.[77] The Roma coverage index summarizes coverage or access at a numerical value that varies between 0 (no access) and 100 (full access), whereas the Roma inequality index measures coverage disparities between the Roma and their non-Roma neighbors in absolute terms and also between 0 (absolute equality) and 100 (absolute inequality). Higher values of the Roma coverage index are thus desirable, whereas the opposite is true of the Roma inequality index. The coverage and inequality indexes are both composites of five separate subindexes summarizing coverage and inequality within each of the five priority areas. For a fuller explanation of the Roma coverage and inequality indexes and subindexes, see Appendix A.

77 The following core indicators are not included in the indexes or underlying subindexes: percentage of students attending majority Roma schools (ages 7–15), percentage of students attending special schools (ages 7–15), unemployment rate (% of total labor force, ages 15–64), and rooms per household member. Nonetheless, in this section, trends in these indicators and in the gaps between Roma and their non-Roma neighbors are examined. Some indicators—such as on informal jobs; the NEET rate (ages 15–24); and waste never collected—are expressed as deprivations. For the purpose of calculating the subindexes, the complements of these indicators are used. For a full explanation of the Roma coverage and inequality indexes and subindexes, see Appendix A.

The 2011 and 2017 coverage and inequality indexes and their underlying subindexes are then compared to determine whether each country is improving in coverage among Roma overall and within each priority area and whether each country is improving in inequality, that is, whether the gap between Roma and their non-Roma neighbors is closing overall and within each priority area (Box 3.1). Measuring both coverage and inequality helps determine if progress or lack of progress has been more rapid or slower among Roma than among their non-Roma neighbors. A widening gap despite an improvement in coverage would signal that Roma are falling further behind, bringing to light possible deficiencies in policy interventions even though the well-being of Roma is improving. Increased coverage and narrowing gaps would show that the Roma are catching up to their non-Roma neighbors, possibly indicating that Roma inclusion policies have succeeded in overcoming Roma-specific barriers. Falling coverage and narrowing gaps may signal that Roma-targeted policy interventions are having the intended effect by halting possible further deterioration among the Roma and closing existing inequalities, though this might also signal that more general policies targeting the poor may not be achieving the intended results. Falling coverage and widening gaps suggest that policies have failed to address Roma exclusion, leading to a deterioration of the well-being of Roma, though the non-Roma population has gained more access to services or economic opportunities. Ideally, policies and programs that target Roma, even if they do not do so exclusively, would lead to expanding coverage or access and decreasing inequality.

Box 3.1. Changes in Sampling and the Comparability of Results, 2011 and 2017 RRS Rounds

A few caveats must be borne in mind with respect to the comparability of RRS data across survey years. This section uses data from the 2011 and 2017 RRS rounds to identify changes in coverage and inequality over time. The 2017 survey included a change in the sampling methodology that means the two surveys are not strictly comparable. Both the 2011 and 2017 rounds sampled marginalized Roma, defined as Roma living in settlements where the share of the Roma population equals or is higher than the national share of Roma population (Gatti et al. 2016), as well as their non-Roma neighbors living within 300 meters. However, among the marginalized Roma, the 2011 sample was further restricted to Roma and their non-Roma neighbors living in areas with a Roma concentration of more than 40 percent. In 2017, this threshold was lowered to 10 percent. Across countries, 40 percent to 50 percent of the 2017 survey data represent Roma and non-Roma neighbors living in areas of lower Roma concentration (10 percent to 40 percent Roma); the remaining observations represent Roma living in areas of higher Roma concentration (greater than 40 percent). Only the latter are strictly comparable to the 2011 sample. Although both groups encompass marginalized Roma, the group living in areas that are 10 percent–40 percent Roma may be considered more integrated than Roma living in areas with a higher concentration of Roma and would therefore be expected to have greater access to services. If this is the case, then at least part of the improvements observed between 2011 and 2017 could be the result of the inclusion of more integrated Roma in the 2017 sample.

Robustness checks were conducted to determine the extent to which the change in sampling has affected the results. In general, differences in the magnitude of coverage and inequality

(continued)

(Box 3.1 continued)

are small if the 2017 sample is restricted to Roma living in areas with a concentration of Roma greater than 40 percent; changes in coverage and inequality between the two survey years also maintain the same direction, with a few exceptions. For robustness checks, the direction of changes is examined, as well as the magnitude of the changes and changes in the statistical significance associated with the 24 core indicators (see Appendix D). In looking at the differences in magnitudes of changes, one finds that most indicators change little (less than 5 percentage points). In most cases, the differences are in the expected direction, that is, restricting the sample to Roma in areas of higher Roma concentration leads to lower coverage or access to services. This is especially the case, for example, in several education indicators on Albania. In some instances, however, the differences are not in the expected direction, suggesting that the more well integrated Roma do not necessarily enjoy better access to services and economic opportunities than the Roma living in areas with a concentration of Roma at more than 40 percent. Thus, including only areas with a higher concentration of Roma in the 2017 Montenegro sample leads to larger improvements in education coverage, which are unexpected; in health, housing, and essential services, the drop in the coverage of health insurance and in piped water in the dwelling is smaller if the sample is restricted only to areas of high Roma concentration.

Changes in the questionnaire also render some results not strictly comparable between the two survey years. (A discussion of further robustness checks to assess the quality and validity of indicators from the 2011 and 2017 surveys may be found in Appendix D.) This section also makes note of issues in the comparability of indicators.

Given the limitations in the number of observations on certain indicators, all results in this section reflect statistical significance at the 10 percent level. In general, the results show that many of the observed changes in inequality are not statistically significant. This is mostly because of the smaller sample of non-Roma neighbors.

The results may also be affected by migration patterns among Roma and non-Roma neighbors. These patterns include in-country migration and migration to and from other countries in or outside the Western Balkans. The 2017 survey results show that the great majority—90 percent or more—of Roma surveyed were living in the same neighborhood five years prior to the survey, that is, in 2012. However, the survey does not capture the extent of outward migration that occurred between the two survey years. If outward migration is correlated with characteristics that influence the indicators of interest, observed changes in coverage and inequality could be affected. For select indicators, changes are accounted for the observed characteristics using Blinder-Oaxaca decompositions. However, characteristics that are not observed in the survey data cannot be accounted for.

Changes in the indexes do not tell the whole story; the indexes, subindexes, and the underlying indicators are also important in assessing performance. For example, if a coverage subindex or underlying indicator is already high, this is not necessarily a cause for concern if progress has been lackluster. Often, if coverage rates are high, improvement at the margin becomes more difficult. The same is true of an inequality subindex or a gap in an underlying indicator that is already relatively

low. Conversely, if a coverage (inequality) subindex is low (high), even if there has been significant progress with respect to 2011, there may still be a long road ahead toward reaching the goal of total coverage (absolute equality). In sum, both levels and trends need to be evaluated together if the goal is to assess which priority areas or countries may have shown progress and which are lagging.

The remainder of this section examines whether coverage and access among Roma improved in 2011–17 and whether the gaps between Roma and their non-Roma neighbors narrowed. It does this by looking at the changes in the overall Roma coverage and inequality indexes and the five priority area subindexes. Each subindex is unpacked to reveal any changes in the underlying indicators, noting which indicators are driving trends in the subindexes. Additionally, changes in levels and in inequality revealed in the four core indicators not included in the subindexes are analyzed. In education and labor markets, trends in coverage and inequality by gender are examined, with special attention to gender gaps within the Roma population. In the case of selected indicators, quantitative techniques are used to identify the main drivers behind the observed changes in coverage among the Roma population. A summary concludes with the results across all five priority areas, providing a regional overview of changes in coverage and inequality among Roma across these areas and in the five countries for which 2011 and 2017 survey data are available; summary country overviews are also presented. Throughout, Kosovo's standing in 2017 is highlighted in the Roma coverage and inequality index and subindexes within each priority area because 2011 survey data are not available on Kosovo.

Overall Changes in Coverage and Inequality

A look at the 2011 and 2017 overall Roma coverage and inequality indexes shows that performance between the two years was generally lackluster (Figure 3.1). Although four of the five countries on which 2011 and 2017 data are available show an improvement in average coverage, these improvements do not surpass 3.3 percentage points. In inequality, there was deterioration in two countries (Albania and Montenegro), and only the (small) improvement in Bosnia and Herzegovina is statistically significant at the 10 percent level.[78] Roma are therefore not improving much overall in terms of coverage, and the little improvement they may show has not resulted in narrower gaps.

The simple average for the six countries reveals that overall coverage is at only 58 percent, and this hides stark disparities across the five priority areas; coverage in education and labor markets is under 40 percent, while it is about 90 percent in documentation. Across countries, overall coverage ranges from a low of 54 percent (Albania and Montenegro) to a high of 66 percent (North Macedonia). Kosovo lies below the simple six-country average, at 56 percent (Figure 3.1, panel a).

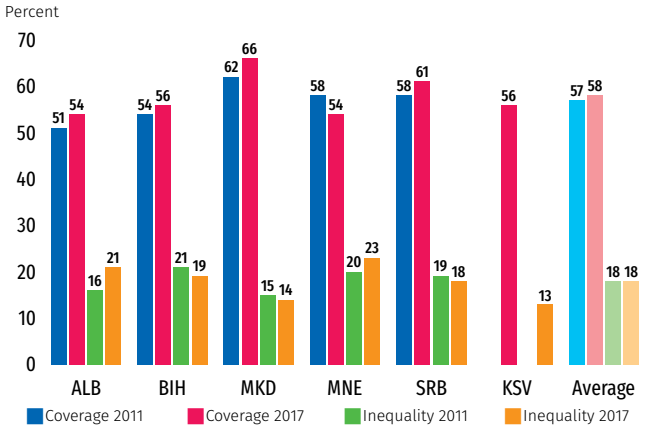
The six-country average Roma inequality index is 18 percent; once again, the average masks differences across priority areas; the low inequality in documentation tends to drive down the overall index. Compared with the average coverage of 58 percent, this means that coverage needs to be increased among Roma by almost a third if Roma are to catch up to their non-Roma neighbors. Across countries, inequality ranges from a low of 13 percent in Kosovo to 23 percent in Montenegro. However, the relatively smaller gaps between Roma and non-Roma neighbors in Kosovo are not the result of higher coverage and access to economic opportunities among Roma; Kosovo's Roma coverage index is

78 Only the deterioration in Albania is robust to changes in sampling.

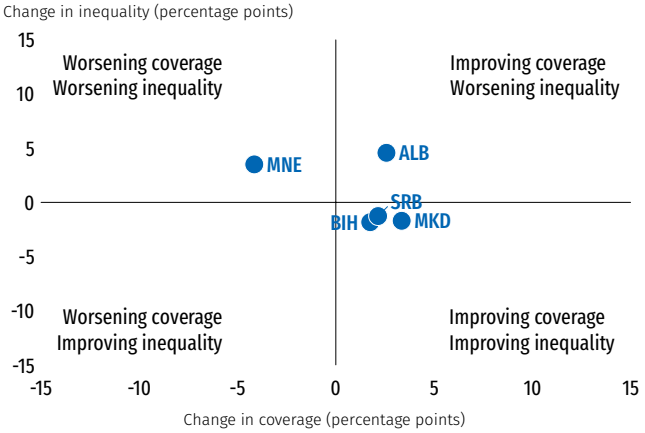
lower than the simple average for the six countries. The low inequality in Kosovo is therefore the result of relatively low coverage and access to services among neighboring non-Roma (Figure 3.1, panel a).

Figure 3.1. **Overall Roma Coverage and Inequality Indexes, 2011 and 2017**

a. **Overall indexes**



b. **Changes in the overall indexes, 2011–17**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Changes in inequality in MKD and SRB are not statistically significant at the 10 percent level. A simple average is shown for all countries. KSV is not included in 2011.

Overall, a look at the performance of individual countries shows that Bosnia and Herzegovina, North Macedonia, and Serbia performed well in relative terms. These three countries improved in both coverage and inequality (Figure 3.1, panel a). However, the highest the improvements in coverage reached in any country was only 3.3 percentage points, and the improvement in inequality is not statistically significant at the 10 percent level in either North Macedonia or Serbia. Montenegro worsened in both coverage and inequality.[79] Albania improved in coverage (only 2.6 percentage points), but worsened in inequality. Thus, in Albania, not only has improvement among Roma been lackluster, Roma have also fallen further behind their non-Roma neighbors.

Priority Area 1: Changes in Coverage and Inequality in Education

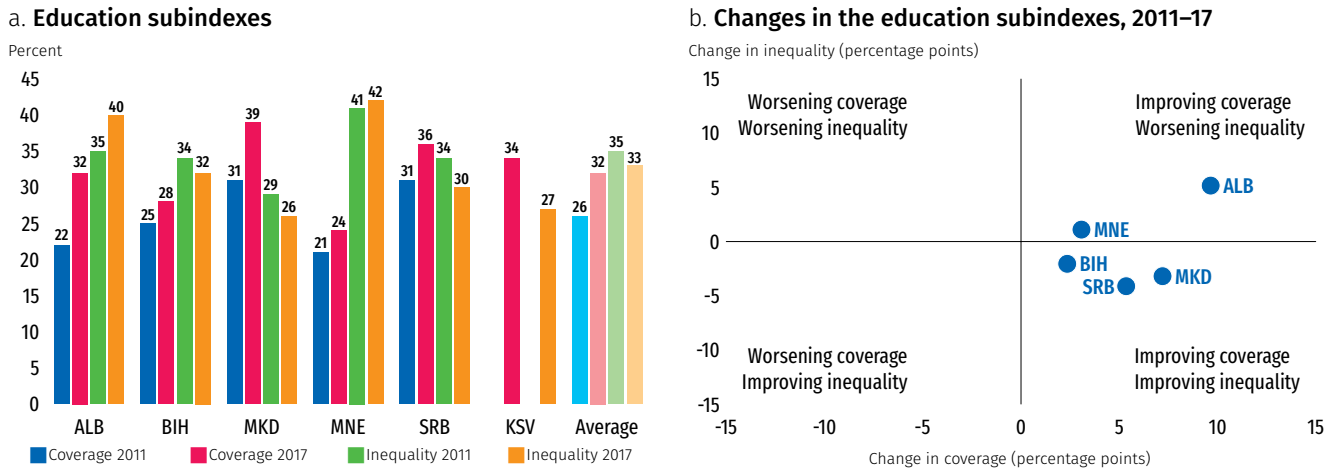
The education coverage subindex shows improvement in all countries; the education inequality subindex also suggests small improvements in most countries, though none of these results are statistically significant. The Roma education coverage and inequality subindexes include five indicators: preprimary and compulsory education enrollment rates and compulsory, upper-secondary, and tertiary completion rates.[80] All countries presented improvements in the Roma education coverage subindex between 2011 and 2017 (Figure 3.2). The improvements range from a mere 2.4 percentage points in Bosnia and Herzegovina (not statistically significant) to 9.6 percentage points in Albania. Robustness checks show that the introduction of Roma in areas of lower Roma concentration (10 percent to 40 percent) in the 2017 sample explains about half the improvement in education in Albania.

79 The overall Roma inequality index rose in Montenegro by 3.5 percentage points. However, if the 2017 sample is restricted to areas with greater concentrations of Roma, the index is relatively stable between the two years, that is, there was a decline of 0.4 percentage points that is not statistically significant at the 10 percent level.

80 Two additional education indicators are included among the core indicators, but not in the education subindexes: the percentage of students attending majority Roma schools and the percentage of students attending special schools. For enrollment rates, compulsory education is understood as International Standard Classification of Education (ISCED) 1 and 2 in all countries. Thus, enrollment in compulsory education refers to enrollment in either ISCED 1 or ISCED 2, and compulsory education completion refers to the completion of ISCED 2. For comparability, the same definition is used across countries. However, in North Macedonia, compulsory education extends up to ISCED 3.

Despite improving education coverage in most countries, there is no evidence that, on average, the improvement favored Roma over their non-Roma neighbors. Though most countries improved on the Roma inequality subindex in education, none of these improvements were statistically significant (Figure 3.2). Indeed, the gap widened by 5 percentage points in Albania, and this increase was even higher (10 percentage points) if the 2017 sample is restricted to Roma living in areas of high Roma concentration.

Figure 3.2. **Education: Roma Coverage and Inequality Subindexes, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: the change in coverage in BIH; changes in inequality in all countries except ALB. The average shown is a simple average for all countries (KSV not included in 2011). Higher levels of the Roma coverage index and subindexes are desirable, but the opposite is true of the inequality index and subindexes.

Overall, changes in the Roma education coverage subindex were mostly driven by increases in enrollment in compulsory education (all countries, especially in Albania and in Bosnia and Herzegovina), completion in compulsory education (Albania, North Macedonia, and Serbia), and upper-secondary completion (Albania, North Macedonia, and Serbia). Little change was observed in the other two indicators that make up the Roma education coverage index: preprimary education enrollment and tertiary education completion.

A look at the 2017 Roma education coverage and inequality subindexes shows that coverage was low (among the lowest across priority areas), while gaps were wide. To close the ethnic gap in most countries, the current average coverage among Roma would have to be more than duplicated. Even in North Macedonia, which has the highest levels, coverage is still below 50 percent. The relatively high coverage rates in North Macedonia are primarily derived from relatively high coverage in both compulsory education (International Standard Classification of Education [ISCED] 2) and upper-secondary completion; the levels in preprimary and tertiary education are dreadfully low, as in most countries. Montenegro had the lowest education coverage subindex in 2017, only 24 percent, largely because of a dismal upper-secondary completion rate (3 percent). Kosovo is in the middle, with a coverage subindex of 34 percent, not too far from Serbia and higher than both Albania and Bosnia and Herzegovina. (Figure 3.2, panel a).

In terms of inequality, Kosovo and North Macedonia had the narrowest average gaps in education in 2017; Albania and Montenegro stand out because of high average inequality. North Macedonia exhibited narrower average education gaps mainly because of relatively small gaps in compulsory

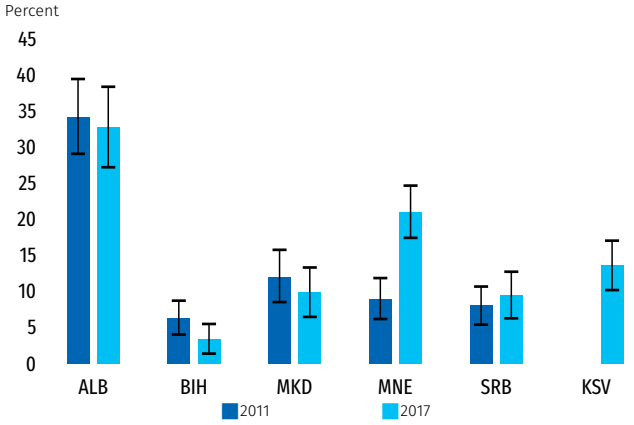
education enrollment and completion and upper-secondary completion. In the case of Kosovo, the gaps were especially small in preprimary enrollment and in completion in compulsory and upper-secondary education. Albania had wide gaps in preprimary enrollment and compulsory enrollment and completion. This was also the case in Montenegro, in addition to larger than average gaps in upper-secondary completion.

Changes in Net Preprimary Enrollment Rates (ages 3–5)

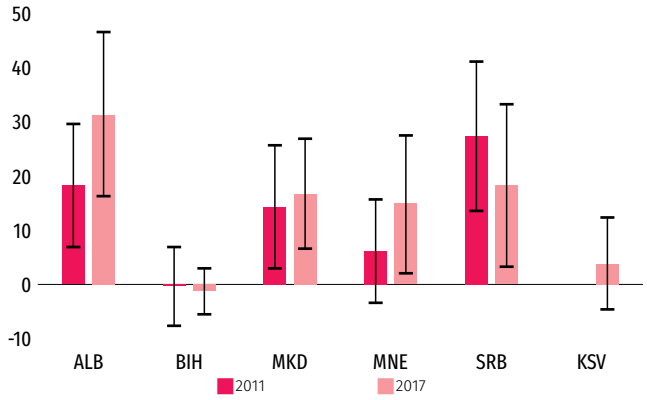
The indicators that make up the Roma education coverage subindex show that Montenegro was the only country that experienced an increase in preprimary enrollment. In all other countries, the change between the 2011 and 2017 rounds, though generally a decline, was small in magnitude (between 1 and 3 percentage points) and not statistically significant (Figure 3.3, panel a). The increase in preprimary enrollment in Montenegro, which more than doubled in the period (rising from 9 percent in 2011 to 21 percent in 2017), is the driving factor behind the improvement in the Roma education coverage subindex in this country. However, Albania had the highest preprimary enrollment rate among Roma, though at only 33 percent, two-thirds of Roma children ages 3–5 were without coverage. The levels in the rest of the countries are much lower.

Figure 3.3. **Net Preprimary Enrollment Rate (Ages 3–5), 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list of data, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

The data suggest increases occurred in ethnic gaps in preprimary enrollment in Albania and Montenegro. Preprimary enrollment increased among non-Roma children in Montenegro, and the percentage point change was even larger than that among Roma children (a 21 percentage point increase among non-Roma versus 12 percentage points among Roma); the gap in preprimary school enrollment, at 15 percentage points in 2017, is now statistically significant.[81] The survey results on Albania also suggest the gap increased in preprimary enrollment, though the change was not statistically significant; in 2017, Albania had the largest gap in preprimary enrollment in the region (31 percentage points). There was no statistically significant change in the gap in other countries, though the data do suggest a narrowing gap in Serbia.

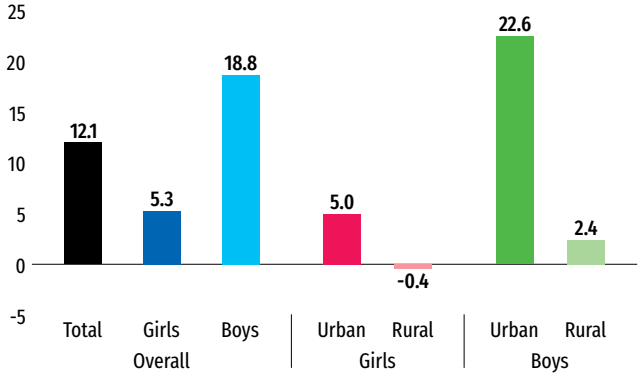
81 Although the 9 percentage point change in the gap is not statistically significant at the 10 percent level, the gap itself is now statistically significant. If the 2017 sample is restricted to areas with high concentrations of Roma, the data no longer suggest that equality deteriorated.

A look at gender equality among Roma shows that the increase observed in preprimary enrollment in Montenegro in 2011–17 was larger among boys than girls, resulting in the disappearance of the 2011 statistically significant gender gap that favored girls; in Bosnia and Herzegovina, a gap favoring boys appeared in 2017. The 2017 survey suggests that, among Roma in Montenegro, the preprimary enrollment rate now favors boys (Figure 3.4). However, this difference is not statistically significant at the 10 percent level. In 2017, a statistically significant gender gap in preprimary enrollment appeared among Roma children in Bosnia and Herzegovina, with only 1 percent of girls enrolled, versus 6 percent of boys. A similar gap seems to be present among the non-Roma neighbors, though the number of observations is too small for the gender gap among non-Roma to be statistically significant.[82] In all other countries, there were no gender gaps in preprimary enrollment.

Most of the increase in preprimary enrollment in Montenegro resulted from increased enrollment among boys in urban areas. Even though enrollment among Roma boys and girls rose in Montenegro, enrollment among Roma boys increased significantly more, by 19 percentage points. The rise in enrollment among boys contributed to 75 percent of the overall 12 percentage point increase. The bulk of the contribution of the enrollment of boys arose from boys in urban areas, where enrollment climbed by 23 percentage points (Figure 3.4).[83] The increase in enrollment among boys was much greater among households that are not overcrowded, suggesting that housing conditions may be important in preprimary enrollments.

Figure 3.4. **The Increase in Preprimary Enrollment Occurred Mainly among Urban Boys, Roma, Montenegro 2011–17**

Percentage point change in net preprimary enrollment rate, % of population, ages 3–5



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.

The increase in preprimary enrollment in Montenegro was also driven by Roma living in areas with a higher concentration of Roma. In 2011, when only Roma in areas with greater than 40 percent Roma concentration were sampled, the preprimary enrollment rate was 9 percent. By 2017, it had risen to 30 percent among Roma in areas of high concentration. In contrast, among more integrated Roma, the preprimary enrollment rate was only 8 percent in 2017.

In Albania, the lower incidence of employment among Roma females may be affecting decisions regarding sending children to preprimary school. Wives and female heads of household were less likely to be employed in 2017. Although enrollment among children with employed mothers rose significantly (from 30 percent in 2011 to 40 percent in 2017), enrollment fell among children with mothers who were not employed (from 36 percent in 2011 to 32 percent in 2017).[84] The net effect,

82 The number of observations is smaller because fewer non-Roma neighbor households than Roma households were sampled in all countries; non-Roma also have fewer children than Roma.

83 In the 2017 RRS, the sample in Montenegro was also more urban. About 83 percent of Roma were living in urban areas in that year, while, in 2011, the share was about 74 percent. Because preprimary enrollment tends to be higher in urban areas, part of the observed changes may be associated with shifts in the urban-rural composition of the sample, rather than shifts in group-specific enrollments. Disentangling these effects reveals that, of the 12 percentage point change, around 1.8 points are associated with changes in the urban-rural composition of the sample.

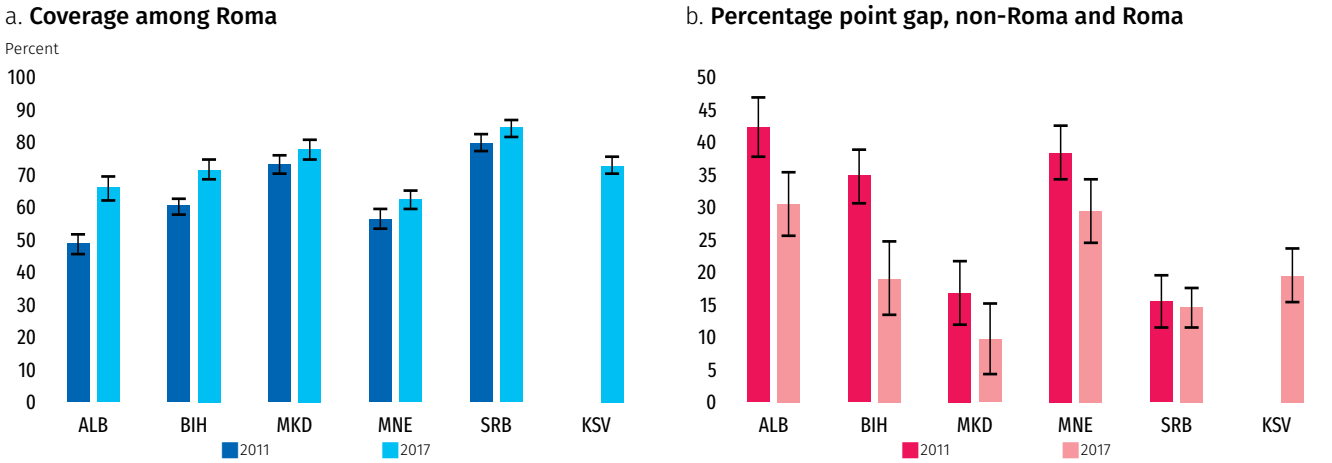
84 It is not possible to identify in the survey data which female member of the household may correspond to the mother of the child. Female heads of household and wives of household heads are thus used as a proxy for the mother.

given the rise in mothers who are not employed, was no statistically significant change in preprimary enrollment; enrollment changed from 34 percent in 2011 to 33 percent in 2017).

Changes in Adjusted Net Compulsory Education Enrollment Rates (Ages 7–15)

All countries witnessed improvement in compulsory education enrollment among Roma in 2011–17; Albania and Bosnia and Herzegovina witnessed the largest increases (Figure 3.5, panel a).[85] The large increases in compulsory education enrollment (ISCED 1 and 2) experienced in Albania and in Bosnia and Herzegovina (17 and 11 percentage points, respectively) were significant contributors to the improvements in the Roma education coverage subindex in these two countries. However, even after the relatively large rise in compulsory enrollment among Roma in Albania, the country still exhibits one of the lowest compulsory enrollment rates among Roma in the region, at only 66 percent; Serbia has the highest rate, at 84 percent. Compulsory enrollment also increased in the other three countries, but the increase was considerably smaller in magnitude, between 4 and 6 percentage points.

Figure 3.5. **Adjusted Net Compulsory Education Enrollment (Ages 7–15), 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list of data, including data on non-Roma and gender-disaggregated data, see Appendix C. Compulsory education refers to ISCED 1 and 2. Error bars depict 90 percent confidence intervals. Although the 90 percent confidence intervals intersect, the 2011–17 changes in coverage in North Macedonia, Montenegro, and Serbia and the change in inequality in Montenegro are statistically significant at the 10 percent level.

Albania, Bosnia and Herzegovina, and Montenegro experienced a reduction in the gaps in compulsory education enrollments; however, the gaps remain wide (Figure 3.5, panel b).[86] The significant reductions in the gap occurred mainly because neighboring non-Roma did not experience an improvement in this indicator. Indeed, enrollment rates in compulsory education among neighboring non-Roma were already above 90 percent in all countries, meaning that significant improvements were not to be expected. In Albania, compulsory education enrollment increased among Roma and their non-Roma neighbors, but the improvement among Roma was significantly larger, leading to a narrowing in the gap. Nonetheless, at 31 percent, Albania continues to have one of the widest gaps in the region.

85 The survey does not identify the level of school enrollment in 2011. Two questions are therefore used to construct a proxy for enrollment. One question refers to educational attainment, and the other to student status. Those who are identified as students and have completed a specific educational level are assumed to be currently attending one level above. For example, those who have completed upper-basic education or who have not completed secondary and are still attending school are assumed to be attending secondary education. To ensure comparability, the same approach is used in 2017 even though the level of enrollment is directly identified in this round of the survey. As a robustness check, in 2017, the proxy is compared with the constructed variable using enrollment directly; the results are consistent.

86 The data also suggest the gaps are narrowing in North Macedonia (7 percentage points) and Serbia (1 percentage point). However, these changes are not statistically significant at the 10 percent level.

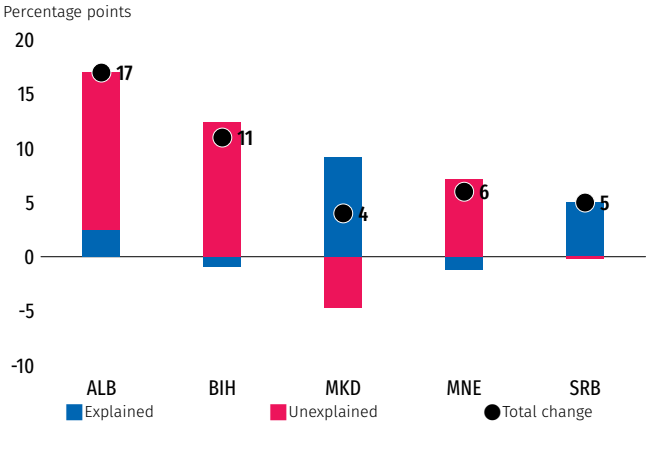
There is no evidence in any country of a gender gap in compulsory education enrollment in either survey year.[87] Though the data may suggest small gender gaps in compulsory education enrollment among Roma in some countries (favoring either boys or girls), these gaps are not statistically significant at the 10 percent level.

In all countries with the exception of North Macedonia and of Serbia, most of the observed increase in compulsory school enrollments among Roma in 2011–17 remains unexplained after controlling for changes in the characteristics of Roma children and their households (Figure 3.6, panel a). This implies that phenomena not observed in the survey, such as actions undertaken to increase school enrollment among Roma, may have had a positive impact. The observed changes in enrollment were decomposed using a Blinder-Oaxaca decomposition to understand if the observed changes derived from changes in the characteristics of the population or from the returns to those characteristics (Box 3.2).[88] In North Macedonia and in Serbia, most of the increase in compulsory school enrollment can be explained by changes in characteristics. In fact, in North Macedonia, the unexplained component is negative (Figure 3.6, panel a), implying that, if the characteristics of Roma had remained the same between the two survey years, a decrease in compulsory enrollment would have been observed. In Albania, Bosnia and Herzegovina, and Montenegro, most of the enrollment increase remains unexplained, meaning that enrollment increased because of unobservable factors. In most countries, the survey data thus suggest that government actions could explain the increase in compulsory enrollment observed among Roma, in addition to the reduction of the gap relative to non-Roma neighbors. However, more research is needed to establish causality between interventions and survey results.

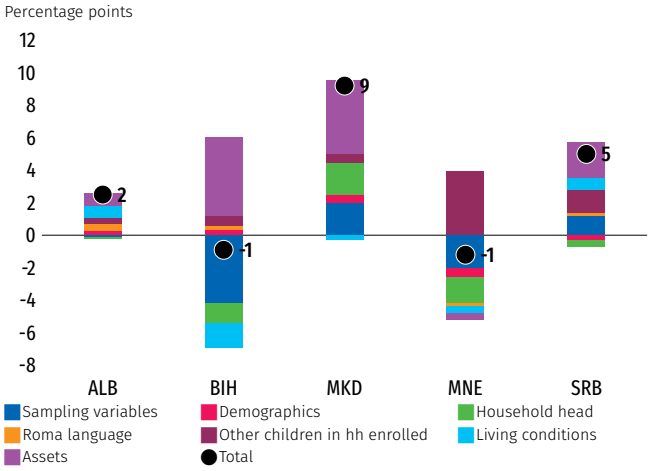
Figure 3.6. **Except in North Macedonia and Serbia, the Increase in Compulsory Education Enrollment Is Not Explained by Changes in Characteristics, 2011–17**

Blinder-Oaxaca decomposition of changes in the adjusted net compulsory education enrollment rate, Roma

a. **Decomposition of total change: explained vs. unexplained**



b. **Decomposition of the explained component**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The panels refer to enrollment in ISCED 1 or 2. The variables included in each category are as follows: assets (computer, Internet, number of books (more than 30), washing machine; living conditions (number of rooms and toilets); other children in the household enrolled; speaking the Romani language at home; household head (characteristics of the head, including sex, age, marital status, educational attainment); demographics (age and sex). Sampling variables include urban or rural location and concentration of Roma in the area (between 10 percent and 40 percent or greater than 40 percent).

87 See Appendix C, Tables C.4–C.9, for core indicator data and changes by sex in 2011–17.

88 School enrollment tends to be correlated with individual and household characteristics, including age, educational attainment of the household head, and primary language spoken at home; geographical characteristics (concentration of Roma and urban location) also matter in some countries. Regression results describing the probability that a child is enrolled in school as a function of a variety of individual and household characteristics for compulsory school–age children, as well as geographical characteristics, are presented in Appendix E, Tables E.1–E.7. For simplification, the data are not disaggregated according to age cohort or sex, but, rather, these are included as explanatory variables in the regression models. The standard errors are corrected for clustering at the household level.

Box 3.2. **Blinder-Oaxaca Decompositions: Understanding Changes in Indicators**

This chapter uses the Blinder-Oaxaca decomposition, normally used to decompose earning gaps, to understand changes in coverage between 2011 and 2017 in education (compulsory enrollment and compulsory and upper-secondary completion) and labor market indicators (labor force participation and employment and informality rates).[a] The decomposition facilitates an understanding of the share of the observed changes that is explained by changes in individual and household characteristics (including geographical variables) correlated with the variable in question and the share that is explained by changes in the returns to these characteristics. By applying the Blinder-Oaxaca decomposition, the changes in coverage of a particular indicator over the period 2011–17 can be expressed as follows:

$$C_{2017} - C_{2011} = \beta_{2011} (X_{2017} - X_{2011}) + X_{2011} (\beta_{2017} - \beta_{2011}), \quad (B3.2.1)$$

where C refers to the coverage rate observed in each survey year; X is a vector of covariates that includes individual and household characteristics; and β is the vector of coefficients or corresponding returns to those characteristics. The changes over time can be decomposed into a share attributable to the changes in characteristics weighted by the returns in the year 2011 (explained component) and a share attributable to the changes in returns to these characteristics, weighted by the characteristics in the initial year (the unexplained component).

Assuming a linear probability model where the coverage in question is a linear function of the regressors, ordinary least square regressions are estimated for each year at the individual level with robust standard errors to account for heteroskedasticity because of clustered data at the household level.

Equation B3.2.1 and the ordinary least squares estimates are then used for the decomposition.

There are several ways to interpret the unexplained component of the equation. First, the unexplained changes over time may reflect changes in individual, household, or institutional characteristics that are unobservable in the survey data and are correlated with the variable of interest over time. For example, in the case of labor force participation, the unobserved characteristics may be shifting social norms or the preferences for work. The unexplained changes may also derive from changes in the returns to observable characteristics over time. For example, there could be changes in discriminatory practices (in the case of labor markets, for instance, employer perceptions of the individual characteristics of Roma, such as educational attainment, could change over time). Likewise, policy or systemic changes could also affect returns to characteristics (coefficients). For example, in the case of labor force participation, labor reforms may decrease the opportunity cost of being inactive or the quality of jobs. In the case of education, unexplained changes in enrollment or educational level completion may reflect changes in the availability of schools or school quality or interventions affecting how parents make decisions regarding enrolling their children in school, for example, information campaigns, fee waivers, or conditional cash transfers (CCTs).

a. Blinder 1973; Oaxaca 1973.

Most of the increase in compulsory education enrollment resulting from changes in characteristics in North Macedonia is associated with a concurrent increase in computer and Internet access; more well educated and older household heads, in addition to sampling changes, also played a role (Figure 3.6, panel b). In North Macedonia, the share of the Roma population that had access to computers rose significantly, from 29 percent to 45 percent, between 2011 and 2017, and Internet access climbed from 22 percent to 61 percent; the possession of a computer and access to the Internet are positively associated with enrollment (after one controls for other characteristics). The share of Roma living in households with heads ages 25–34 or with completed ISCED 2 also increased; these groups are much more likely to enroll their children in compulsory education. Also, while all households in the 2011 sample lived in areas of high Roma concentration (over 40 percent), this was so among only 50 percent in the 2017 sample. These households were significantly less likely to send their children to school; so, the fewer households of this type in the sample and the large share of households living in more highly integrated areas had a positive impact on enrollment in 2017.[89]

In Serbia, most of the increase in enrollment in compulsory education among Roma is associated with changes in assets (mostly ownership of washing machines), the presence of other enrolled children in the household, and sampling variables (Roma in areas of higher versus lower Roma concentration) (Figure 3.6, panel b).

Changes in Completion Rates in Compulsory Education (ages 18–21) and Completion Rates in Upper-Secondary Education (ages 22–25)

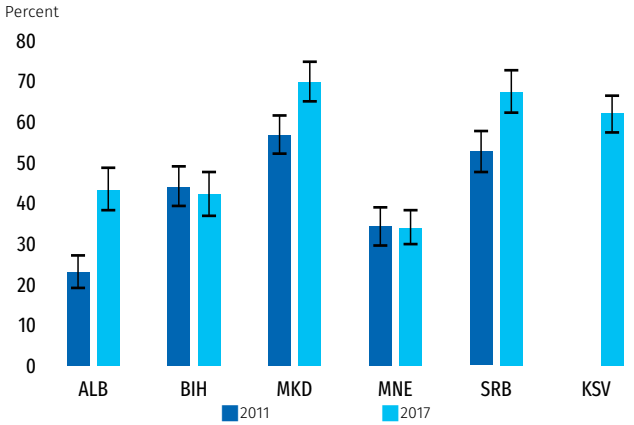
Completion rates in compulsory and upper-secondary education increased significantly among Roma in Albania, North Macedonia, and Serbia; Bosnia and Herzegovina and Montenegro witnessed no improvement in these two indicators (Figure 3.7, panel a; Figure 3.8, panel a). The large rise in the completion rate in compulsory education (20 percentage points) was the main driver behind the substantial overall improvement in education observed in Albania. However, Albania started off from a low level, only 23 percent in 2011. Despite the sharp expansion, over 50 percent of Roma ages 18–21 had not completed compulsory education in 2017. At only 43 percent, Albania, still lags North Macedonia and Serbia, as well as Kosovo on this indicator; the simple average for the region is 53 percent.

The increase in upper-secondary completion in Albania and in North Macedonia was remarkable; however, there is still room for improvement, especially in Albania. The proportion of Roma ages 22–25 who had completed upper-secondary school more than doubled in North Macedonia between 2011 and 2017 (rising from 15 percent to 32 percent). North Macedonia now stands out for its relatively high rate of upper-secondary completion among Roma; however, in absolute terms, the rate is still not much to celebrate. In Albania, though the completion rate rose fivefold in Albania (rising from 3 percent to 15 percent), the country still has one of the lowest completion rates in the region.

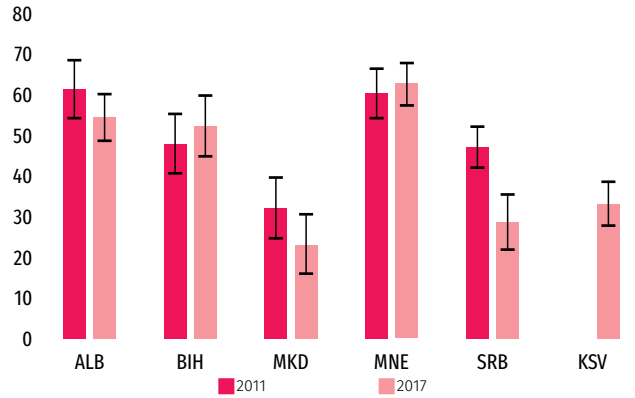
89 In North Macedonia in 2017, 74 percent of children ages 7–15 living in areas of high Roma concentration were enrolled in compulsory education versus 82 percent of children living in more well integrated areas. If the sample is restricted to Roma living in areas with higher concentrations of Roma, the change in compulsory education enrollment in North Macedonia falls from 4 percentage points to 0 percentage points.

Figure 3.7. **Compulsory Education Completion Rate, Ages 18–21, 2011 and 2017**

a. **Coverage among Roma**



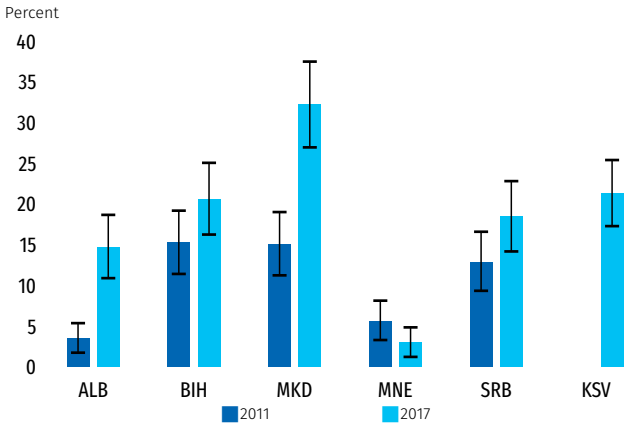
b. **Percentage point gap, non-Roma and Roma**



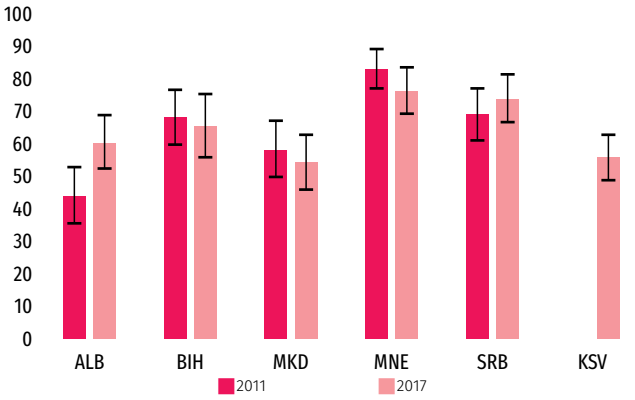
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The figure refers to completion of ISCED 2. For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

Figure 3.8. **Upper-Secondary Education Completion Rate, Ages 22–25, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals. Although the 90 percent confidence intervals intersect, the 2011–17 change in coverage among Roma in Serbia is statistically significant at the 10 percent level.

Montenegro saw no improvement in upper-secondary completion, and, at only 3 percent in 2017, it is a significant outlier in the region. In all other countries, upper-secondary completion ranges from 15 percent (Albania) to 32 percent (North Macedonia). These levels, although high in comparison to Montenegro, are still low, especially compared with the rates among non-Roma neighbors, which range from 75 percent (Albania) to 93 percent (Serbia).

The gap in compulsory education completion narrowed only in Serbia; no other country saw a statistically significant change in inequality on this indicator (Figure 3.7, panel b). The 18 percentage point change in the gap in compulsory completion in Serbia significantly contributed to the overall improvement in the Roma inequality subindex in education in Serbia. The gaps in Albania, Bosnia and Herzegovina, and Montenegro are large, at over 50 percentage points; the changes between the two years are not statistically significant, though they suggest a narrowing trend in Albania and a widening trend in Bosnia and Herzegovina and in Montenegro.

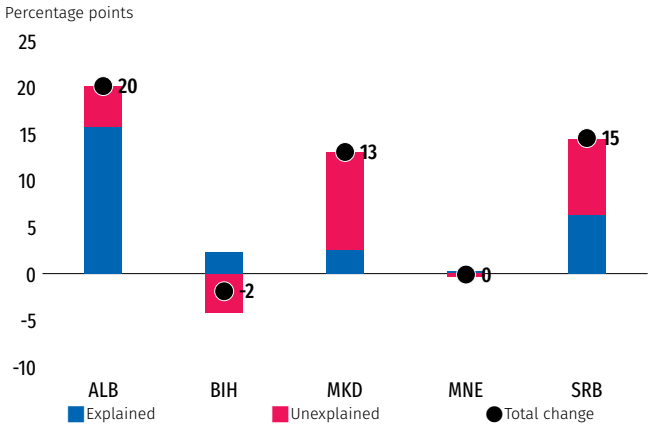
The gaps in upper-secondary completion are the highest across all the core indicators; despite increased coverage among Roma, the gap in upper-secondary completion widened significantly in Albania, and there were no statistically significant changes in the other four countries. Between 2011 and 2017, the gap in upper-secondary completion increased by 17 percentage points in Albania; this was one of the main contributors to the worsening of the Roma inequality subindex in education in Albania (Figure 3.8, panel b). In all countries, the ethnic gap in upper-secondary completion is higher than the upper-secondary completion rate among Roma. In three countries, it is more than four times as high (Albania, Montenegro, and Serbia).

In Albania, the large rise in the compulsory and upper-secondary completion rates among Roma can be mostly explained by changes in individual and household characteristics, suggesting that education-specific policies contributed little to the increase; in North Macedonia and Serbia, most of the increase is unexplained after one controls for individual characteristics; this implies that factors unobserved in the survey data, possibly including policy interventions directly aimed at raising educational attainment among Roma, may be a driving factor behind the increase in these two countries. Figure 3.9, panel a, and Figure 3.10, panel a, show, respectively, the decomposition of percentage point changes in compulsory education completion and upper-secondary completion according to the explained and unexplained components of the Blinder-Oaxaca model. The high shares of the explained component in Albania indicate that most of the increase in both compulsory and upper-secondary completion can be explained by changes in the individual and household characteristics of Roma. This finding suggests that specific policy measures undertaken in Albania are not a main driver behind the observed rise in compulsory completion. In contrast, the high share of the unexplained component in North Macedonia and in Serbia implies that the increase in completion rates is not explained by the changes in individual and household characteristics observed in the survey data. The increase may be (partly) explained by changes in individual and household characteristics that are unobserved in the data. Additionally, policy interventions may be partly behind the unexplained component in these countries. The governments of both North Macedonia and Serbia include cash transfers or scholarships in the national action plans for Roma inclusion, and it is possible they are driving the positive results in completion rates in these two countries. More research is needed to establish the cause behind the observed changes.

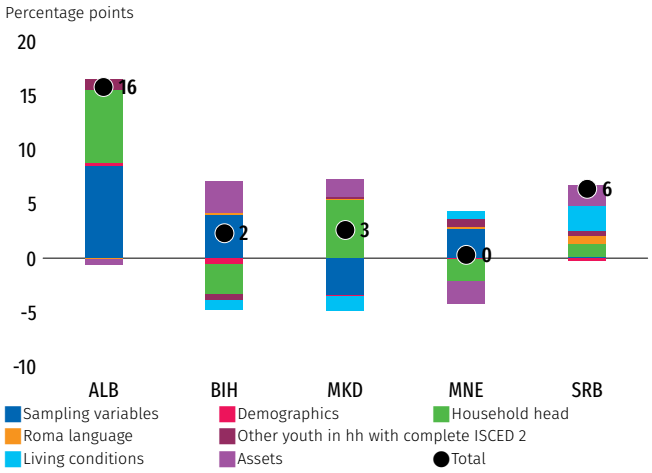
The inclusion of more integrated areas in the 2017 sample and changes in the characteristics of household heads explain most of the increase in compulsory and upper-secondary completion rates in Albania; changes in household assets also explain part of the increase in upper-secondary completion rates (Figure 3.9, panel b; Figure 3.10, panel b). Because Roma youth living in more integrated areas are more likely to complete compulsory and upper-secondary education in Albania, the introduction of this population in the survey sample in 2017 partly explains the overall observed rise in both indicators. Changes in the characteristics of household heads (age, marital status, and educational attainment) are also important explanatory factors; this is especially the case of the increase in compulsory completion. The educational attainment of the household head is highly correlated with education enrollment in Albania. Changes in household assets, such as ownership of a washing machine and books and Internet access also partly explain the rise in upper-secondary completion. These findings may reflect an improvement in household socioeconomic conditions that helps students to avoid dropping out.

Figure 3.9. **Blinder-Oaxaca Decomposition of Percentage Point Changes in Compulsory Education Completion Rates, Roma, 2011–17**

a. **Decomposition of total change: explained vs. unexplained**



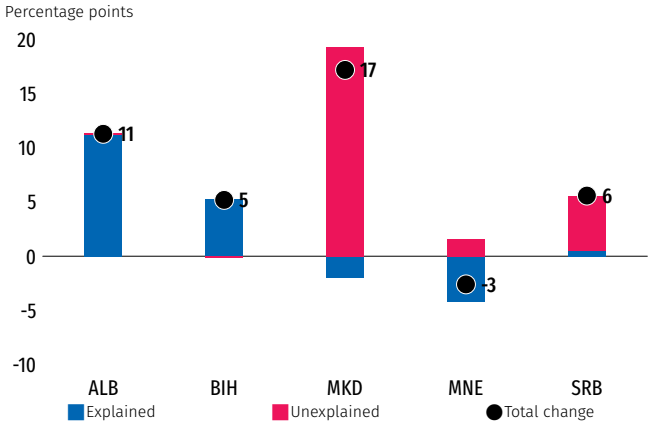
b. **Decomposition of the explained component**



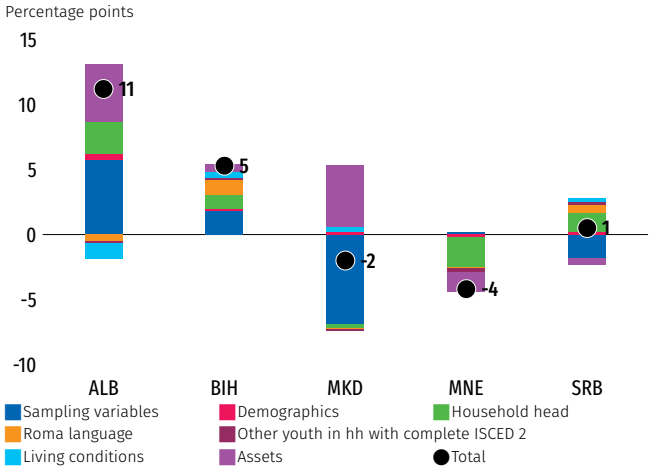
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The figure refers to the completion of ISCED 2. The variables included in each category are as follows: assets (computer, Internet, more than 30 books, washing machine); living conditions (number of rooms and toilets); other youth in the household who have completed compulsory education; speaking Romani language at home; household head (characteristics of the head, including sex, age, marital status, educational attainment); demographics (age and sex). Sampling variables include urban or rural residence and the concentration of Roma in the area (between 10 and 40 percent or greater than 40 percent).

Figure 3.10. **Blinder-Oaxaca Decomposition of Percentage Point Changes in Upper-Secondary Completion Rates, Roma, 2011–17**

a. **Decomposition of total change: explained vs. unexplained**



b. **Decomposition of the explained component**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The variables included in each category are as follows: assets (computer, Internet, number of books [dummy = 1 if more than 30], washing machine); living conditions (number of rooms and toilets); other youth in the household who have completed upper-secondary education; speaking Romani language at home; household head (characteristics of the head, including sex, age, marital status, educational attainment); demographics (age and sex). Sampling variables include urban or rural residence and the concentration of Roma in the area (between 10 and 40 percent or greater than 40 percent).

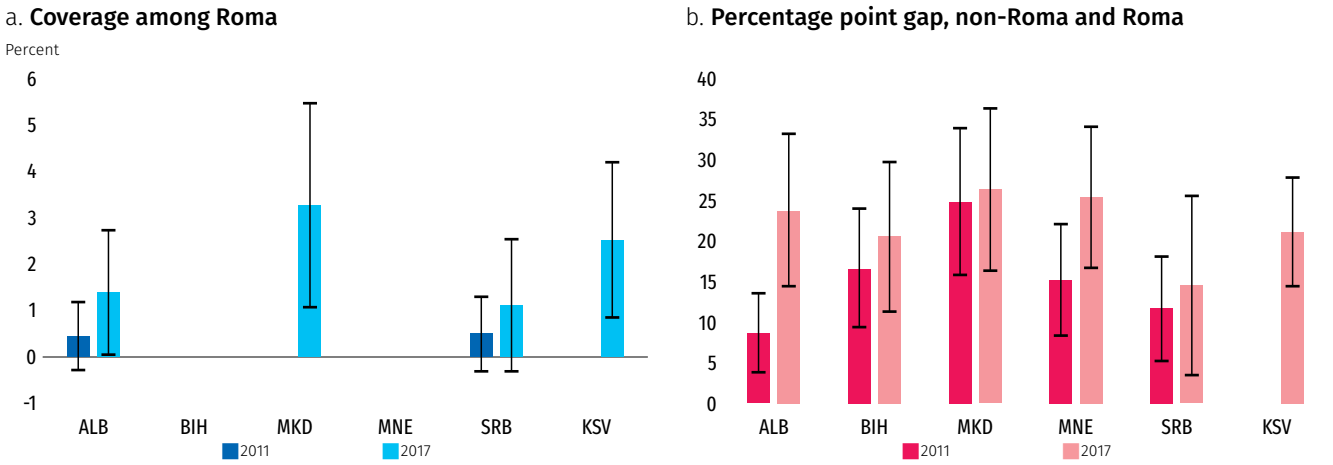
Changes in Tertiary Education Completion Rates, Ages 26–29

Tertiary education completion is mostly out of reach of Roma, among whom completion rates are close to zero; only North Macedonia witnessed a statistically significant increase between 2011 and 2017, but, at only 3 percent, the tertiary completion rate among Roma there is low (Figure 3.11, panel

a). The data suggest that the rise in tertiary completion was concentrated among Roma women, rather than Roma men.

The gap in tertiary education completion increased significantly in Albania, where non-Roma neighbors are completing tertiary education at a rising rate. Among non-Roma neighbors in Albania, the tertiary education completion rate rose from 9 percent in 2011 to 25 percent in 2017; the Roma did not see an increase in the indicator; so, the gap widened substantially, by 15 percentage points (Figure 3.11, panel b).[90] Gaps in all countries are especially stark; completion rates among non-Roma neighbors ranged from 16 percent (Serbia) to 30 percent (North Macedonia).

Figure 3.11. **Tertiary Education Completion Rate, Ages 26–29, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

Changes in the Percentage of Students at Majority Roma Schools, Ages 7–15

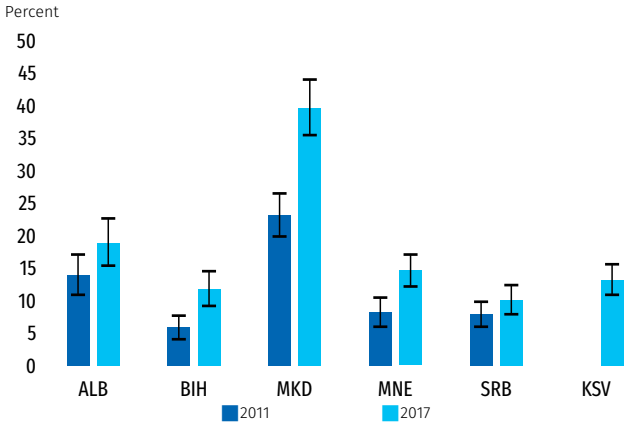
The percentage of students ages 7–15 attending majority Roma schools increased in all countries on which 2011 and 2017 are available except Serbia (Figure 3.12, panel a).[91] Two additional indicators not included in the Roma coverage and inequality subindexes in education are the share of children of compulsory school age (7–15) who attend majority Roma schools and the share of children of compulsory school age who attend special schools. In North Macedonia, the rise in the share of students attending majority Roma schools was especially high, at 16 percentage points; 40 percent of Roma students ages 7–15 now attend majority Roma schools, the highest proportion in the region. In the other countries in which the proportion rose (Albania, Bosnia and Herzegovina, and Montenegro), the increase was only about 6 percentage points; the 2017 levels in these countries ranged between 12 percent in Bosnia and Herzegovina and 15 percent in Montenegro. Across countries, the rise in the number of students attending majority Roma schools was more pronounced among Roma boys than Roma girls.

90 Among Roma, the tertiary completion rate rose from 0 percent in 2011 to 1 percent in 2017, but the change is not statistically significant at the 10 percent level.

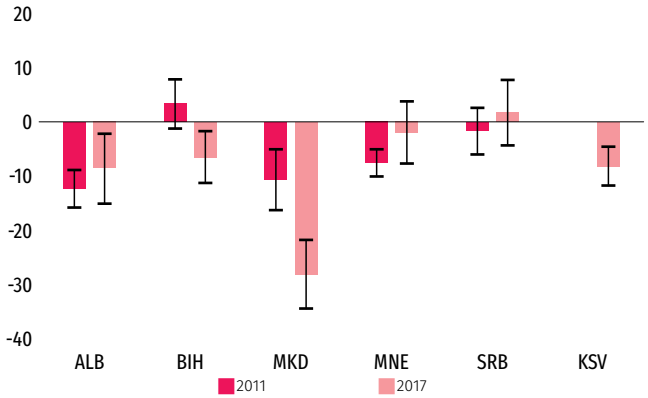
91 This indicator is not included in the Roma coverage and inequality subindexes. It is self-reported by the parents of children. It is thus a subjective measure. Furthermore, it does not necessarily translate into a measure of school segregation, given that much of the population being surveyed already lives in areas that are majority Roma.

Figure 3.12. **Share of Students Ages 7–15 Attending Majority Roma Schools, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



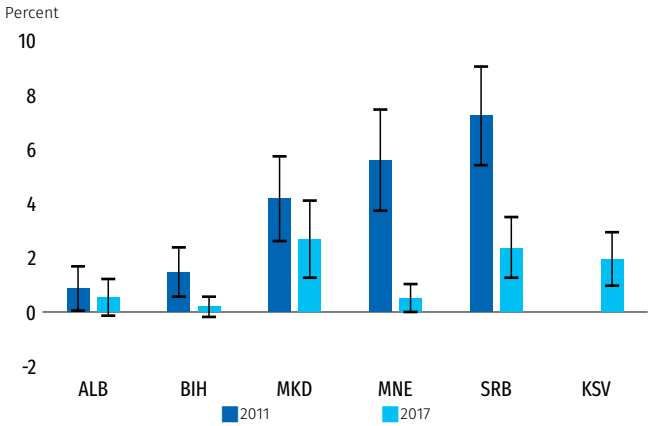
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. A smaller share of students attending majority Roma schools is desirable. This indicator is not included in the Roma coverage and inequality indexes. Error bars depict 90 percent confidence intervals. Although the 90 percent confidence intervals intersect, the 2011–17 change in coverage among Roma in Albania is statistically significant at the 10 percent level.

Changes in the Percentage of Students Attending Special Schools, Ages 7–15

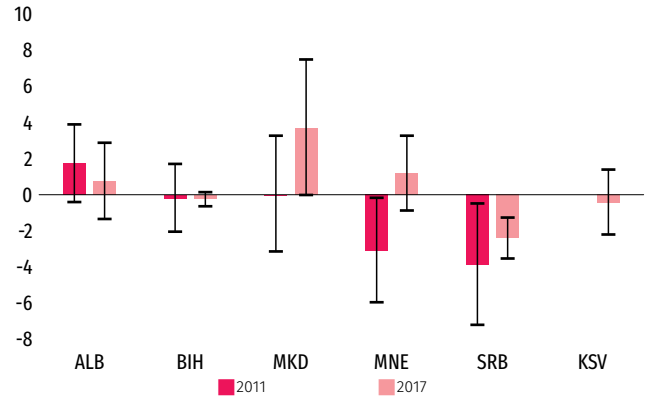
The incidence of students attending special schools decreased in three of the five countries and is low (under 2 percent) across all countries (Figure 3.13, panel a).[92] In Montenegro and Serbia, the share of students ages 7–15 attending special schools fell by 5 percentage points. Across countries, the proportions now range from 0 percent in Bosnia and Herzegovina and in Montenegro to 3 percent in North Macedonia.

Figure 3.13. **Share of Students Ages 7–15 Attending Special Schools, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. A smaller share of students attending special schools is desirable. This indicator is not included among the Roma coverage and inequality subindexes. Error bars depict 90 percent confidence intervals. Although the 90 percent confidence intervals intersect, the 2011–17 change in coverage in Bosnia and Herzegovina is statistically significant at the 10 percent level.

92 Special schools cater to the special needs of children with disabilities. The questions used in the two surveys to construct this indicator are not worded the same way. In 2011, enrollment in special schools is identified using the question, "Was the school he/she was/is attending most of the time a special school for disabled?" In 2017, the question was "Which education level are you currently attending?" Children enrolled in special schools are identified as those respondents answering, "elementary special education," or "secondary special education" to this question.

The only country in which Roma children remain more likely to attend special schools than their non-Roma neighbors is Serbia; however, the proportion of Roma children attending special schools is low, at 2 percent.

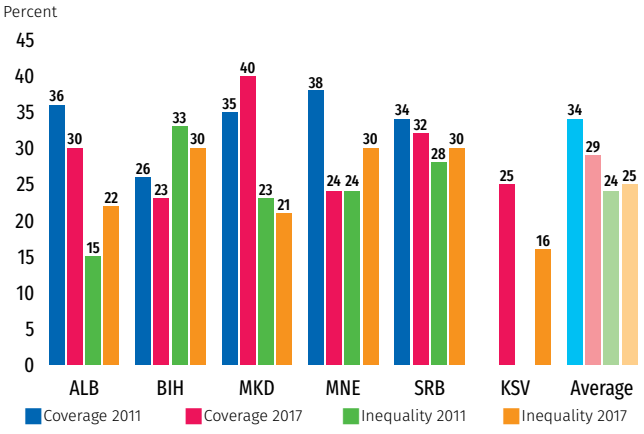
Boys used to be more likely than girls to attend special schools in Albania, North Macedonia, and Montenegro. This is currently the case only in Serbia, although the gap is small, at 2 percentage points.

Priority Area 2: Changes in Coverage and Inequality in Labor Markets

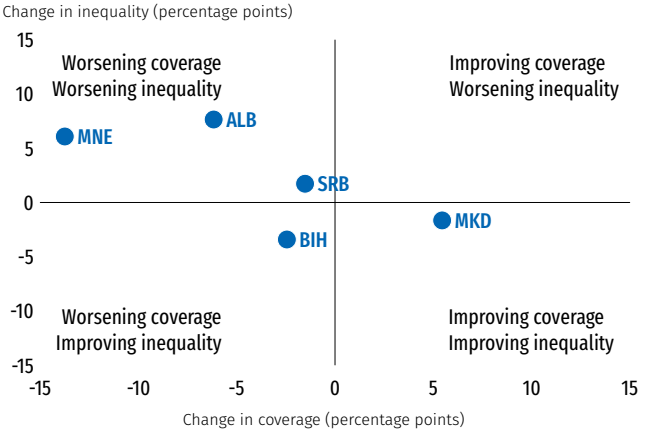
The performance of labor markets lagged in 2011–17; two countries in five had worsening coverage and inequality; and only North Macedonia exhibited an increase in coverage. The Roma coverage and Roma inequality subindexes include four of the five core labor market indicators (the unemployment rate is not included). The two subindexes showed deterioration in Albania, Montenegro, and Serbia; however, in Serbia, the deterioration was small and not statistically significant (Figure 3.14). In Bosnia and Herzegovina, coverage deteriorated, while inequality improved.[93] North Macedonia stands out as the only country in which access to economic opportunities rose; however, the measured improvement in inequality was small and not statistically significant. Across countries, the observed deterioration in coverage or inequality in labor markets may be generally explained by falling labor force participation, followed by a decline in employment.

Figure 3.14. **Labor Markets: Roma Coverage and Inequality Subindexes, 2011 and 2017**

a. **Labor market subindexes**



b. **Changes in the labor market subindexes, 2011–17**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: change in coverage for SRB; changes in inequality for BIH, MKD, and SRB. Average shown is a simple average for all countries (KSV not included in 2011). Higher levels of the Roma coverage index and subindexes are desirable, but the opposite is true of the inequality index and subindexes.

The 2017 Roma coverage subindex for labor markets was low; together with education, these two priority areas had the lowest coverage. There was also a wide range; North Macedonia had the highest average coverage (40 percent), and Bosnia and Herzegovina, Kosovo, and Montenegro were at the other end of the spectrum (around 24 percent) (Figure 3.14, panel a). The relatively high coverage in North Macedonia was primarily caused by relatively high coverage in labor force participation and low informal employment.[94] The low coverage in Bosnia and Herzegovina, Kosovo, and Montenegro was caused primarily by low labor force participation and employment.

93 The data suggest an improvement in inequality, but the change is not statistically significant at the 10 percent level.
94 For informal employment, the complement of the indicator is used in the Roma coverage index to indicate coverage.

Inequality gaps in labor markets are among the widest across the five priority areas; Kosovo stands out with an especially low Roma inequality subindex in labor markets; Bosnia and Herzegovina, Montenegro, and Serbia showed especially high average inequality, with gaps surpassing or almost surpassing coverage. At only 16.1 percent in 2017, Kosovo's Roma inequality subindex is well below the average for the six countries (24.8 percent). Kosovo had especially narrow gaps in labor force participation and employment. However, Kosovo's coverage is not high in relative terms; this means that the relatively narrow gaps mostly arise because non-Roma neighbors are not faring well either.

Across countries, the gender gaps in labor markets among Roma became narrower because the deterioration in labor markets tended to affect males more, though the gaps are still large.[95] In all countries, Roma gender gaps were significantly reduced in employment and unemployment. Roma males generally saw sharper reductions in employment relative to Roma females, and they also saw smaller reductions in the unemployment rate.[96] Nonetheless, with the exception of informal employment, where the gap now tends to favor females, Roma males fared significantly better than Roma females in labor markets, and large gaps persist.

Changes in the Labor Force Participation Rate (ages 15–64)

Labor force participation—the share of the working-age population that have jobs or are available for work and are seeking jobs—fell in all countries; the largest drop occurred in Montenegro, and the smallest in North Macedonia.[97] In Montenegro, close to half (49 percent) of working-age Roma participated in the labor market in 2011; this share had fallen to slightly less than a fifth (19 percent) in 2017 (Figure 3.15, panel a). Montenegro now has the lowest labor force participation in the region. The 30 percentage point drop in Montenegro is the main driver behind the worsening in the Roma labor market coverage subindex for this country. Though still important, the decline in labor force participation, at between 13 and 17 percentage points, was much smaller in Albania, Bosnia and Herzegovina, and Serbia than in Montenegro. Only North Macedonia showed a relatively small decline in labor force participation (6 percentage points).

Roma are falling behind their non-Roma neighbors in labor force participation in three countries; the ethnic gap in labor force participation widened in Bosnia and Herzegovina, Montenegro, and Serbia. In these three countries, the widening of the gap was of similar magnitude (around 10 percentage points; Figure 3.15, panel b) and resulted from a smaller decline in the labor force participation rate among non-Roma neighbors. This means that, though the fall in labor force participation is not a particular Roma issue in these countries, Roma experienced a larger decline in absolute percentage points.

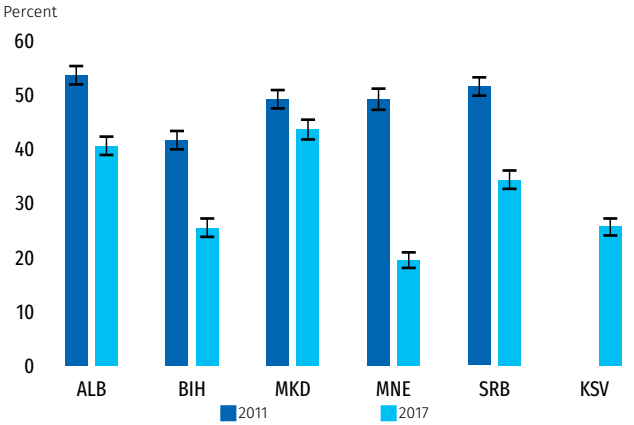
95 For changes in gender gaps among Roma in labor market indicators, see Appendix C, Table C.8.

96 A similar reduction in gender gaps is not observed among non-Roma neighbors.

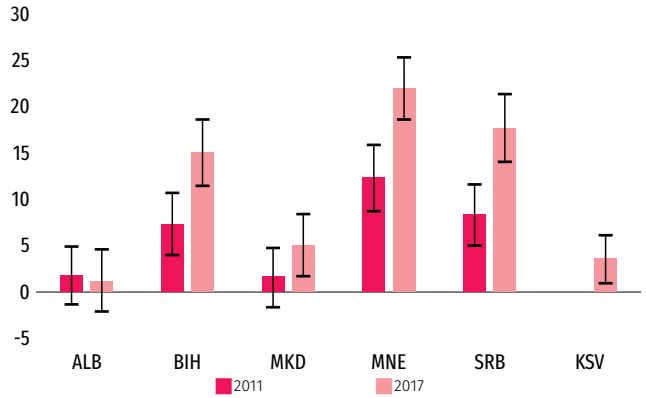
97 Because of a change in the questionnaire, labor force participation is not strictly comparable across the two survey rounds. The difference arises from the way the unemployed are identified in 2011 and 2017. For this reason, labor force participation in 2017 may be underestimated in each country by approximately 3 percentage points. Conclusions regarding an observed reduction in labor force participation are robust. North Macedonia is an exception; there, the decline in labor force participation is no longer statistically significant if an alternative definition is used for 2011.

Figure 3.15. **Labor Force Participation Rate, Ages 15–64, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**

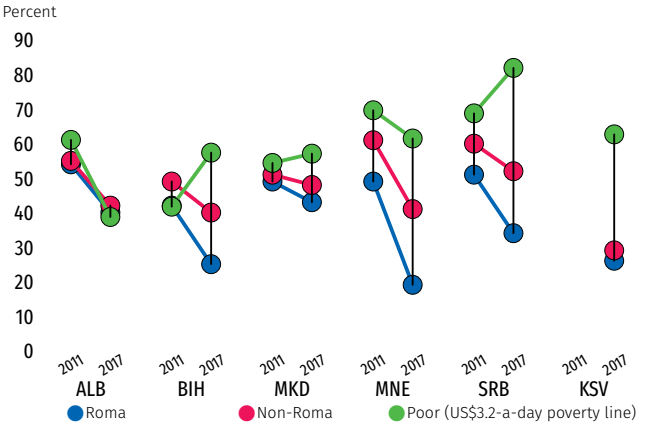


Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Indicators are not strictly comparable between the two years. See Appendix D for details and robustness checks. Error bars depict 90 percent confidence intervals.

Albania, Bosnia and Herzegovina, and Montenegro exhibited improvement in the Roma gender gap in labor force participation. In these three countries, labor force participation fell among both males and females, but the decrease was larger among males. This was especially the case in Montenegro, in which labor force participation among males fell by 38 percentage points, versus 22 percentage points among females. The Roma gender gap in labor force participation thus fell by 15 percentage points in Montenegro. Nonetheless, the gender gap in labor force participation in Montenegro, at 28 percentage points, is one of the largest in the region.

The decline in labor force participation in Albania, North Macedonia, and Montenegro is consistent with trends observed among the poor. Whereas, at a national level, the participation of the working-age population (15–64) has generally been constant or even increased slightly in all countries, activity rates among working-age Roma and their non-Roma neighbors have fallen in all countries on which 2011 data are available (Figure 3.16). These negative trends are consistent with the trends observed among individuals at the bottom of the welfare distribution. Across the region, except in Bosnia and Herzegovina and in Serbia, household budget surveys show declining activity among the working-age poor, that is, people living below the US$3.20-a-day poverty line. This suggests that the decrease in labor force participation among Roma reflects a lack of inclusive labor markets rather than a specific Roma issue. In Bosnia and Herzegovina and in Serbia, improvements in participation among the general population translate into improvements among the poor, but not among Roma or their non-Roma neighbors. Widening ethnic gaps in these two countries

Figure 3.16. **Labor Force Participation Rate, Roma, Non-Roma Neighbors, and the Poor, Ages 15–64**



Sources: For Roma and non-Roma indicators, World Bank estimates based on weighted 2011 and 2017 UNDP-WB-EC Regional Roma Survey data. US$3.20 poor estimates: ECAPOV circa 2011–17 and LSMS circa circa 2011–17; ALB: HBS 2008, LSMS 2012; BIH: ECAPOV 2011–15; KSV: ECAPOV 2017 HBS; MNE: ECAPOV 2010–15 HBS; MKD: EU-SILC 2010–16; SRB: ECAPOV 2010–15.
Note: The US$3.20-a-day poverty line is adjusted for purchasing power parity.

also suggest that Roma have been disproportionately affected within the areas where marginalized Roma live, that is, the areas that were sampled in both survey years.[98]

The declines in labor force participation may be associated with demographic factors, macroeconomic conditions, institutional factors, or other policies affecting taxes and transfers, as well as changes in survey design and sampling.[99] Labor force participation fell in all countries between 2011 and 2017. Demographic characteristics, such as sex, age, education, marital status, self-reported health status, and the presence of dependents at home, are strongly associated with participation rates.[100] Changes in participation within demographic groups, combined with changes in demographic characteristics, may therefore account for some of these changes. Changes in the macroeconomic environment may also be important because, during growth slowdowns, a lack of job vacancies may discourage some workers from searching for jobs (the discouraged worker effect) or the presence of an unemployed partner may incentivize other family members to participate in the labor market to contribute to the forgone income (the added worker effect). In most countries, while labor market performance has slowly returned to pre-crisis levels, this rebound has been weaker among lower income and consumption quintiles (World Bank 2017). Institutional factors, such as the availability of public childcare and eldercare services or part-time employment opportunities, may also vary over time and may have sizable effects on participation decisions, especially among females.

Labor force participation is associated with gender, education, young children in the household, and geographical factors, such as urban or rural residence and the concentration of Roma. Urban residence was associated with less labor force participation in most countries in both 2011 and 2017. Living in an area with a high concentration of Roma (greater than 40 percent) is associated with higher labor force participation in North Macedonia and with lower labor force participation in Montenegro, after one controls for all individual, household, and institutional characteristics. Females exhibit higher economic inactivity in all countries in both years. High educational attainment, that is, completing ISCED 3 or above, is positively correlated with labor force participation in all countries except Albania and Montenegro in 2011. The presence of children under age 14 is associated with lower labor force participation in North Macedonia only. In all other countries, this variable does not have a significant effect on labor force participation. (The regression results are shown in Appendix E, Table E.13 - Table E.17.)

There are changes in the sample and in individual and household characteristics that may affect labor force participation rates among Roma. First, in all countries, the Roma sample in 2017 includes enumeration areas with lower concentrations of Roma (between 10 percent and 40 percent), while, in 2011, the sample includes only areas with Roma concentrations greater than 40 percent. In Albania, for example, relative to the 2011 Roma sample, the 2017 Roma sample is slightly more urban (64 percent versus 61 percent of the population). The Roma population in 2017 in Albania is also slightly older, less well educated, and more likely to receive social assistance (10 percent versus 4 percent). Self-reported health status also deteriorated in 2017. In Bosnia and Herzegovina, relative to the 2011 sample, the 2017 Roma sample is significantly more urban (80 percent versus 49 percent), slightly older, has similar educational attainment, but possesses more assets (cars, computers, mobile phones), shows a smaller household size, and is less likely to have young children. In Montenegro, relative to the 2011

98 The declines in labor force participation observed in Albania, Bosnia and Herzegovina, Montenegro, and Serbia are all robust to changes in sampling.
99 For a discussion on the robustness of these changes to changes in questionnaire and sampling design, see Appendix D.
100 Health status may affect the preference for leisure and the retirement decisions among older workers.

Roma sample, the 2017 Roma sample is slightly more urban (81 percent versus 77 percent), less well educated, possesses less assets (cars, radios, color televisions), shows significantly larger average household sizes (7.0 versus 5.0 members), and is less likely to have young children.

The mean labor force participation rates associated with some of these characteristics generally declined. In most countries in the region, declines in participation were significantly larger among men, young workers, married individuals, people with low educational attainment, and urban residents. Males were significantly more affected than females, except in Serbia, where females were slightly more affected. Inactivity rates among young cohorts (ages 15–24) rose significantly more, except in Albania, where people who were slightly older (ages 35–44) were affected more. Married people and people with low educational attainment (completing less than ISCED 2) were significantly more likely to be out of the labor force in 2017 than in 2011; this is also the case among urban residents, except in Bosnia and Herzegovina, where rural residents exhibited larger average declines in participation (Table 3.2).

Table 3.2. **Population Subgroups Leading in the Declines in Labor Force Participation, 2011–17**

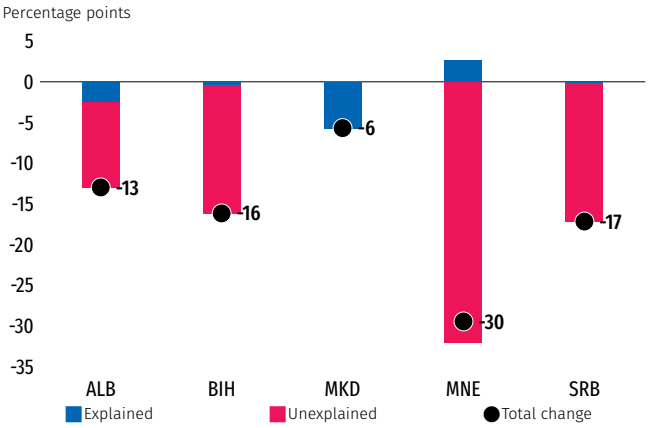
Country	*Sex*	*Age*	*Marital status*	*Educational attainment*	*Urban, rural*
ALB	Males	35–44	Married	Low education (below ISCED 2)	Urban
BIH	Males	15–24, 25–34	Married	Low education (below ISCED 2)	Rural
MNE	Males	15–24	Married	Low education (below ISCED 2)	Urban
MKD	Males	15–24	Married	Low education (below ISCED 2)	Urban
SRB	Females	15–24	Married	Low education (below ISCED 2)	Urban

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.

In all countries except North Macedonia, most of the decrease in labor force participation among Roma cannot be explained by changes in the characteristics of individuals; this means that the changes derive from factors not observed in the survey data. A Blinder-Oaxaca decomposition of the changes in labor force participation shows that, given the same set of characteristics for Roma, participation in the labor market decreased between 2011 and 2017, except in North Macedonia.[101] Observable characteristics can explain only a small share of the reasons labor force participation fell. The decline in labor force participation in Albania and North Macedonia is consistent with trends observed among the poor

Figure 3.17. **Most of the Decrease in Labor Force Participation among Roma Cannot be Explained by Changes in the Characteristics of Individuals**

Blinder-Oaxaca decomposition of changes in the labor force participation rate, Roma, 2011–17



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Labor force participation refers to ages 15–64. The explained portion in the figure refers to the share of the changes that are explained by differences in the characteristics of the population between the two survey years. The unexplained portion refers to changes in the returns to these characteristics. The dependent variables are as follows: assets: color television, computer, Internet; health self-perception: self-perceived health; demographics: household head, age, marital status, educational attainment, number of children younger than 14, number of elderly 65+; living conditions: connection to sewerage or waste water tank; other employed members in the household and social assistance: number of employed members in the household, working-age members, household recipient of social assistance; sampling variables: urban or rural location and concentration of Roma in the area (between 10 percent and 40 percent or greater than 40 percent).

101 Some endogeneity problems may arise from the fact that child-related variables, such as the number and age of children, may be endogenous and jointly determined with labor force participation. The same issue arises with educational choices. However, because of the widespread incidence of child marriage, it is likely that marital and fertility choices among Roma occur earlier and can thus be considered exogenous and predetermined relative to future labor force participation decisions. Also, given the high drop-out rates in compulsory education and beyond, it is likely that educational choices are also made earlier than participation decisions; so, the problem of reverse causality may be limited, and, in this context, there is less need for an instrumental variable approach.

in Albania and Montenegro. Unobservable factors that may explain these results include social norms, discrimination, or changes in the demand for low-skilled workers. In Bosnia and Herzegovina and in Serbia, improvements in labor force participation at the national level and among the poor did not necessarily translate into improvements among Roma. In North Macedonia, almost all the decline in activity rates (the smallest in the region) is explained by changes in characteristics (Figure 3.17).

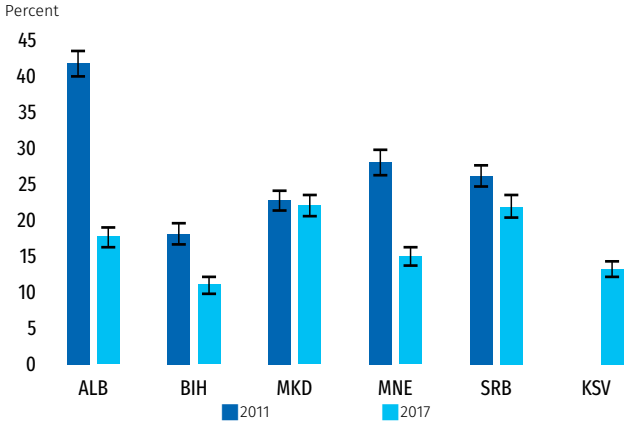
In North Macedonia, the observed decrease in labor force participation derives mainly from a decrease in the share of Roma households receiving social assistance and changes in sampling. Between 2011 and 2017, the share of Roma households receiving social assistance decreased dramatically, from 57 percent to 12 percent. This is important because, in North Macedonia, individuals in households that do not receive social assistance tend to participate less in the labor market, explaining more than half the overall fall in labor force participation. The data also show that individuals living in areas with a concentration of Roma at greater than 40 percent are more likely to participate in the labor market than individuals living in more integrated areas; as a result, introducing more highly integrated areas into the Roma sample in 2017 also contributed to the decrease in participation among Roma in North Macedonia.[102]

Changes in the Ratio of Employment to Population, Ages 15–64

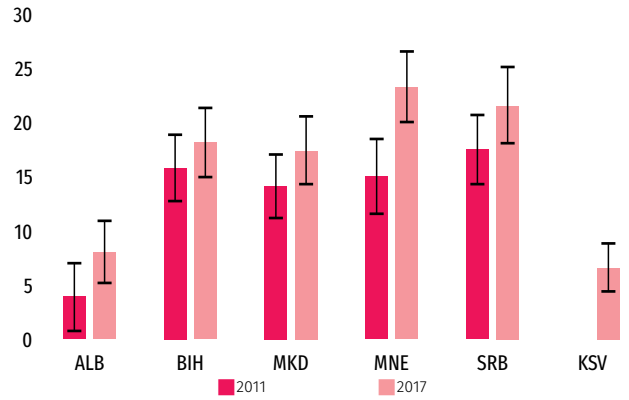
The employment-to-population ratio among Roma fell in all countries except in North Macedonia; the fall was especially significant in Albania.[103] In Albania, 42 percent of working-age Roma were employed in 2011, the highest share in the region in that year. In 2017, the share dropped to under a fifth (18 percent). Albania now trails North Macedonia and Serbia in employment (Figure 3.18, panel a).

Figure 3.18. **Employment-to-Population Ratio, Ages 15–64, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

102 For the effect of sampling variables on labor market variables, see Appendix D.

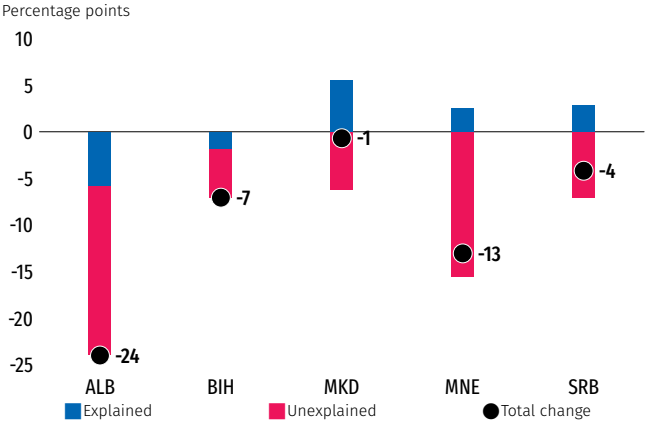
103 The employed consist of all persons of working age (15–64) who (a) worked in paid work (in cash or in kind) for at least one hour during the reference period, that is, the previous week (paid work may include wage or salary employment as well as profits or self-employment income) and who (b) have a paid job or business, but were temporarily absent during the reference period. This definition is consistent with the definition of the International Labour Organization. The questions are fully comparable across the 2011 and 2017 surveys. Both surveys may undercount informal employment (see Appendix D).

The employment gap between Roma and non-Roma neighbors widened in Montenegro; in all other countries, the widening in the employment gap is not statistically significant. The gap in employment in Montenegro widened by 8 percentage points (Figure 3.18, panel b). The increase occurred because the fall in employment was less among neighboring non-Roma than among Roma. The fall in employment was not a particularly Roma issue in all countries where employment fell except Serbia, though Roma in Montenegro were disproportionately affected.

Like the reductions in labor force participation, most of the employment reductions in the region among the Roma population cannot be explained by changes in observed characteristics among Roma between the two survey years; rather they are explained by changes in the returns to those characteristics or factors not observed in the survey data. In all countries, a large share of the decrease in employment remains unexplained after one controls for observed characteristics, meaning that the reduction in employment was mostly attributable to changes in the returns to individual and household characteristics. In Albania, where the drop was largest, the unexplained component accounts for 75 percent of the total drop, while, in Montenegro, which had the next largest drop, it accounts for 73 percent of the total drop. In North Macedonia, the explained component is positive; this implies that changes with respect to observable characteristics of individuals between 2011 and 2017 should have led to higher employment rates; however, the net effect was a decline in employment by 1 percentage point (not statistically significant). This is because, in 2017, the returns to such characteristics fell, as shown by the negative unexplained component (Figure 3.19). The unexplained component of the changes across countries may be related to changes not included in the models here because of lack of information, such as labor demand factors (especially the demand for unskilled labor) and labor supply factors, or related to other aggregate unobserved characteristics, such as macroeconomic conditions in municipalities and year fixed effects or to greater discrimination against Roma in 2017.[104]

Figure 3.19. **Most of the Employment Decline among Roma in 2011–17 Is Not Explained by Changes in Observed Characteristics**

Blinder-Oaxaca decomposition of employment changes, Roma



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The explained portion in the figure refers to the share of the changes that are explained by differences in the characteristics of the population between the two survey years. The unexplained portion refers to changes in the returns to these characteristics. The variables included in each category are as follows: assets: color television, computer, Internet; living conditions: connection to sewerage inside the dwelling; self-perceived health status; self-perceived health status; other employed members in the household and if the household received social assistance; demographics: if the individual is the head of household, gender, age, marital status, educational attainment, percentage of children in the household under age 14, percentage of elders in the household over age of 65; sampling variables: urban or rural location and concentration of Roma in the area (between 10 percent and 40 percent or greater than 40 percent).

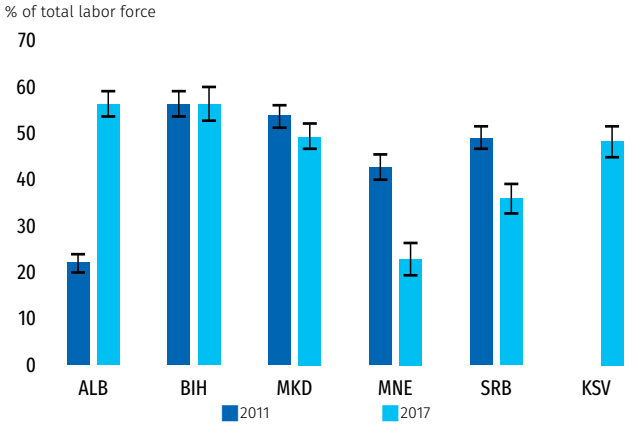
104 Adverse shifts in labor demand factors, such as a drop in wages or less flexibility in work schedules, may drive declines in employment. Yet, labor supply factors, such as improvements in the options available to nonworkers or increases in the costs of entering the labor force that lead fewer people to seek employment, could also result in a decline in the employment-to-population ratio.

Changes in the Unemployment Rate, Ages 15–64

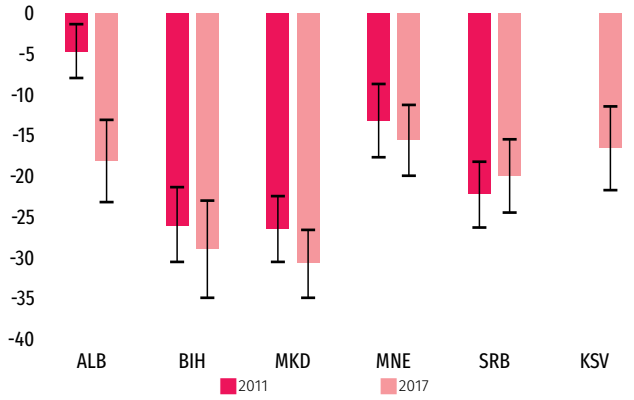
The drop-off in labor force participation among Roma was accompanied by a fall in unemployment in three of five countries.[105] Unemployment fell significantly in Montenegro and Serbia, by 20 and 13 percentage points, respectively (Figure 3.20, panel a); these countries also showed a significant fall in labor force participation. The unemployment gap was largely unchanged because non-Roma experienced similar declines in unemployment (Figure 3.20, panel b). In Bosnia and Herzegovina, unemployment among Roma was stable between the two years. In contrast, Albania saw a large rise in unemployment among Roma (34 percentage points); this rise in unemployment was accompanied by widening in the gap between Roma and non-Roma.

Figure 3.20. **Unemployment Rate, Ages 15–64, 2011 and 2017***

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list of figures, including non-Roma and gender-disaggregated data, see Appendix C. The indicator is not strictly comparable between the two years. See Appendix D for details and robustness checks. This indicator is not included in the Roma coverage and inequality indexes. In panel a, lower levels imply coverage or access to the service. Thus, a decrease in the level of this indicator is considered an improvement. Error bars depict 90 percent confidence intervals.

Changes in Informal Employment, Ages 15–64

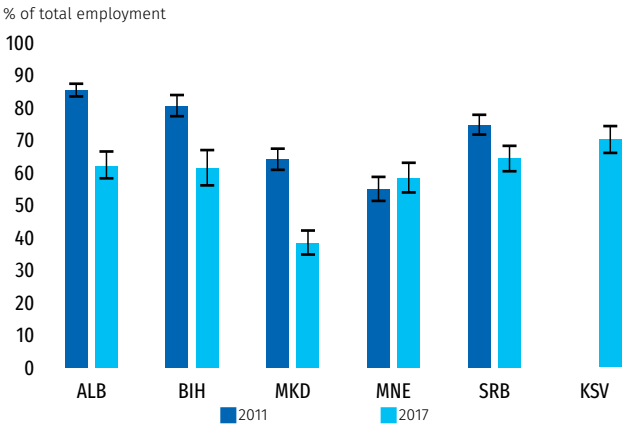
Although there was a clear deterioration in the employment-to-population ratio, the survey suggests that, among those who were employed in 2017, a smaller share was employed in informal jobs in all countries except Montenegro (Figure 3.21, panel a).[106] In Montenegro, the data suggest there was a small increase in informal employment, though this result is not statistically significant. In the other four countries, the decline in informal jobs ranged from 10 percentage points in Serbia to 26 percentage points in North Macedonia. In North Macedonia, fewer than half of working Roma (38 percent) were in informal jobs. For the rest, the shares were between 58 percent (Montenegro) and 64 percent (Serbia).

105 The unemployment rate is not included in the Roma labor market coverage and inequality subindexes. The unemployed comprise all persons of working age (15–64) who (a) were without work during the reference period, that is, were not in paid employment or self-employment; (b) were seeking work in the previous four weeks; and (c) are currently available for work, that is, were available for paid employment or self-employment in the subsequent two weeks. The questions used in the two surveys to construct unemployment are worded in the same way, except the question that allows one to identify whether the person is actively looking for a job in the reference period. In 2017, a list of activities to be undertaken to find a job were included, such as searching through public announcements and newspapers, asking personal connections and friends, trying to start a business, or contacting an employment agency). In 2011, the list of possible activities was not included in the question. In the 2011 survey, future starters, that is, persons who were not looking for work, but who had a future stake in the labor market (such as making arrangements for a future job), can be identified and are counted as unemployed. This definition is consistent with the definition of the International Labour Organization. In the 2017 survey, such individuals cannot be identified, meaning that fewer individuals are considered unemployed. Nonetheless, the difference is only in the magnitude of around 3 percentage points; general conclusions regarding trends in unemployment remain unchanged.

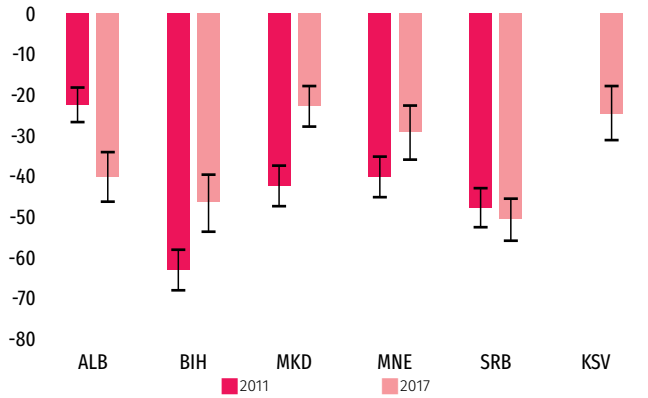
106 The social protection definition of informality is used here, whereby a worker is considered informal if the employer or the worker does not contribute to health or pension insurance. The survey questions in 2011 and 2017 are fully comparable in this case.

Figure 3.21. **Informal Employment, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. In panel a, lower levels imply coverage or access to the service. Thus, a decrease in the level of the indicator is considered an improvement. Error bars depict 90 percent confidence intervals.

Informal employment is the only labor market indicator showing improvement in inequality: the gap improved in three of five countries (Figure 3.21, panel b).[107] In Montenegro, the improvement in inequality was the result of a substantial increase in informality among neighboring non-Roma. In Bosnia and Herzegovina and in North Macedonia, informality decreased among non-Roma, but not at the rate observed among Roma; hence, the improvement observed in the gap.[108] In Albania, meanwhile, the gap widened by 18 percentage points in absolute terms because informality was reduced to a much greater extent among neighboring non-Roma. The data also suggest there was a small increase in the gap in Serbia, but this change is not statistically significant at the 10 percent level.

Informality fell more among working females in Albania, North Macedonia, and Serbia; in these countries, in 2017, working Roma males were more likely than Roma females to have informal jobs; in 2011, this was only true in Albania. The gender gap in informal employment among Roma now favors Roma females in three of five countries; among these, even though informality was reduced among both Roma males and Roma females, the reduction was much greater among females. This contrasts with the situation observed among neighboring non-Roma, among whom the declines in informality among working males and females were similar. Among countries with a significant gender gap in informality among non-Roma neighbors, the gap tends to favor males rather than females. Montenegro is an exception in the case of the gender gap in informality among Roma: working Roma females are still more likely to be in the informal sector than Roma males, and the gender gap among Roma has widened.

In almost all countries where informality decreased, a large share of the decline is attributable to changes in individual and household characteristics among Roma between 2011 and 2017, except in Albania, where the unexplained component accounts for a higher share of the total reduction. In Bosnia and Herzegovina, the reduction in informality is almost completely explained by changes in observed characteristics. Similarly, in North Macedonia, changes in observed characteristics account for 76 percent of the total change, while, in Serbia, the share is 68 percent. Albania is the only country

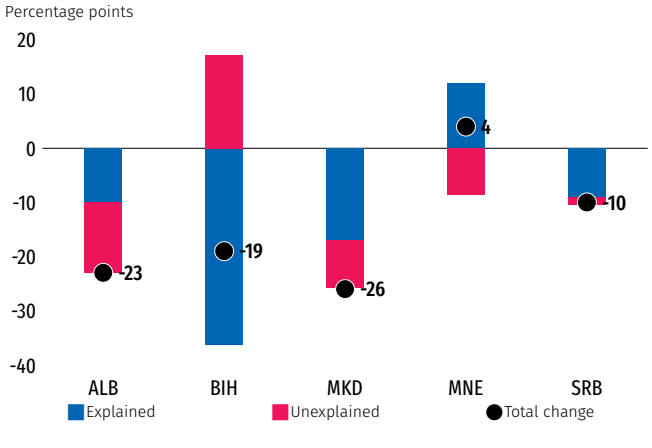
107 The survey data also suggest there were improvements in inequality in the NEET rate in some countries; however, these improvements are not statistically significant at the 10 percent level.
108 In Bosnia and Herzegovina, the fall in informality among neighboring non-Roma (2 percentage points) is not statistically significant at the 10 percent level.

in which the unexplained component accounts for a higher share of the total reduction, reaching 58 percent (Figure 3.22, panel a).

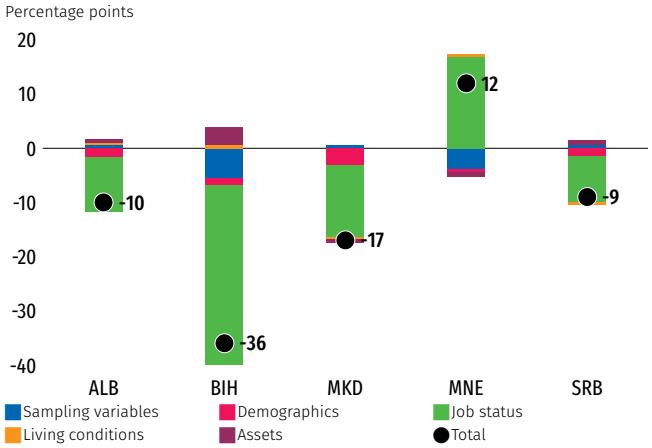
Figure 3.22. **A Large Share of the Decrease in Informality Is Attributable to Changes in Individual and Household Characteristics among Roma, 2011 and 2017**

Blinder-Oaxaca decomposition of changes in the informality rate, Roma, 2011–17

a. **Decomposition of total change: explained vs. unexplained**



b. **Decomposition of the explained component**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The explained portion in the figure refers to the share of changes that is explained by differences in the characteristics of the population between the two years. The unexplained portion refers to changes in the returns to these characteristics. The variables included in each category are as follows: assets: Internet, mobile phone, power generator; living conditions: connection to sewerage or waste water tank; job status: type of employment (employee in private company, employee in public municipal company, self-employed, other), type of contract (permanent, temporal, seasonal, periodical), occupational skills (unskilled, semiskilled, skilled, other), and part-time worker; demographics: whether the individual is the head of household, gender, age, marital status, and educational attainment; sampling variables: urban or rural location and concentration of Roma in the area (between 10 percent and 40 percent or greater than 40 percent).

The main factors associated with the reduction in informal jobs among the Roma population between 2011 and 2017 are changes in the composition of jobs, including a decline in the share of self-employed workers and an increase in the share of working Roma with permanent jobs. A large share of the decline in informal jobs can be explained by changes in the composition of job status among Roma, including type of employment (employee in private company, employee in public municipal company, self-employed, other) and type of contract (permanent, temporal, seasonal, periodical).[109] Two main effects contributed to the reduction in informality rates. First, there was an important increase between 2011 and 2017 in the share of employees working in private and public companies, where jobs are less likely to be informal. Second, there was a decrease in the share of self-employed and other nonwage employed, who are more likely to be in informal jobs. In addition, the employed population with permanent contracts also increased, while the employed population working seasonally or periodically decreased. Changes in educational attainment among the employed contributed to the reduction in informality rates, especially in North Macedonia, where the employed population that had completed upper-secondary or tertiary education expanded by 39 percent. Sampling variables are key explanatory factors in the decline in informality in Bosnia and Herzegovina. Indeed, the employed Roma population living in areas with high concentrations of Roma are more likely to be in informal jobs than Roma in more integrated areas. The introduction of more integrated Roma in the 2017 sample thus contributed to the overall reduction in informality in the country.

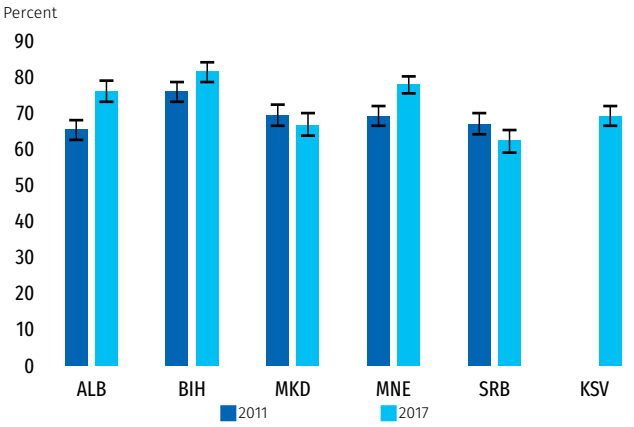
109 A worker is considered in an informal job if the employer or the worker does not contribute to health or pension insurance.

Changes in NEET Rates, Ages 15–24

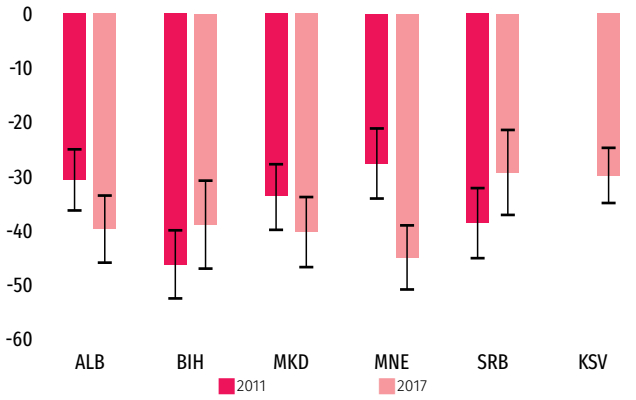
The decline in employment among working-age Roma was generally accompanied by a rise in the not in employment, education, or training (NEET) rate among individuals ages 15–24 (Figure 3.23, panel a). Serbia is an exception: although employment fell among the working-age population, the NEET rate also declined, by 5 percentage points; at 62 percent in 2017, it is now the lowest in the region. In North Macedonia, where the employment rate among the working-age population did not fall, the NEET rate also did not rise.[110]

Figure 3.23. **Not in Employment, Education, or Training, 15–24 Age-Group, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. In panel a, lower levels imply coverage or access to the service. Thus, a decrease in the level of this indicator is considered an improvement. Error bars depict 90 percent confidence intervals. Although the 90 percent confidence intervals intersect, the 2011–17 change in the gap in Albania and the 2011–17 change in coverage among Roma in Serbia are statistically significant at the 10 percent level.

Survey data suggest that the ethnic gap in the NEET rate widened in Albania and Montenegro. In Montenegro, in contrast to the NEET rate among Roma, the NEET rate among non-Roma neighbors fell between the two years. The evidence also points to a widening gap in North Macedonia and a narrowing gap in Bosnia and Herzegovina and in Serbia; however, these changes are not statistically significant (Figure 3.23, panel b).

In all countries, young Roma females are more likely to be NEET than young Roma males; this gender gap became narrower in 2017 in Albania and Montenegro. In Albania and Montenegro, the increase in the NEET rate was more pronounced among young males; this is partly because NEET rates among young females were already alarmingly high in 2011, at 80 percent or more, with little room for increase.

Priority Area 3: Changes in Coverage and Inequality in Health

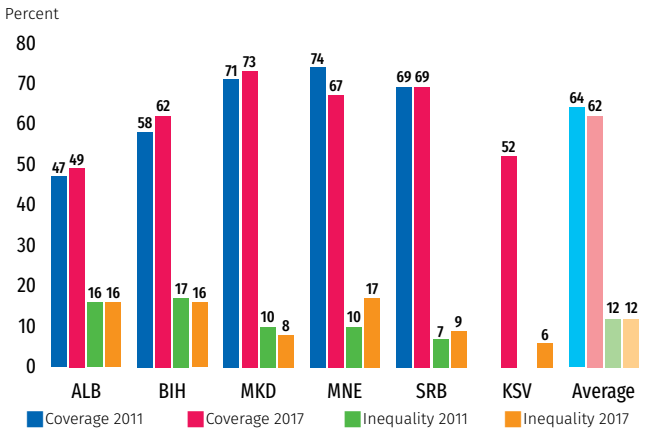
In general, changes in the Roma coverage and inequality subindexes in health were small and not statistically significant between 2011 and 2017; Montenegro is an exception, with significant worsening in both inequality and coverage.[111] Four indicators make up the Roma coverage and inequality

110 The NEET rate fell in North Macedonia, but only by 2 percentage points; this change is not statistically significant at the 10 percent level.
111 The worsening of coverage and inequality in Montenegro is robust to sampling changes. However, the size of the changes is less if the 2017 sample is restricted to Roma in areas of higher Roma concentration.

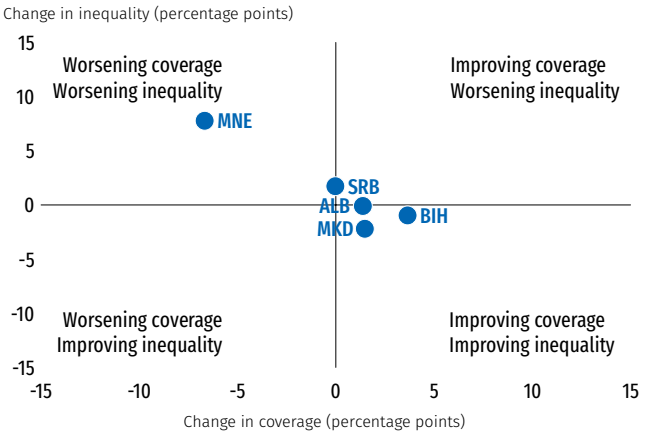
subindexes in health: one measures health insurance coverage; two measure access to services; and another concerns self-perceived health status.[112] Though the data suggest there were improvements in both coverage and inequality in three countries, the changes are generally small and not statistically significant. Only Bosnia and Herzegovina showed a statistically significant increase in coverage, but the coverage in Bosnia and Herzegovina is substantially less than the coverage in North Macedonia, Serbia, and even Montenegro, where coverage worsened between the two years (Figure 3.24). In general, the indicator that performed the least well was self-perceived health status, which declined in three of five countries. The best performing indicator was the self-reported unmet need for medical care, in which coverage improved in four countries.

Figure 3.24. **Health: Roma Coverage and Inequality Subindexes, 2011 and 2017**

a. **Health subindexes. 2011–17**



b. **Changes in the health subindexes, 2011–17**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: changes in coverage for ALB, MKD, and SRB; changes in inequality in all countries, except MNE. The average is a simple average for all countries (KSV is not included in 2011). Though higher Roma coverage indexes and subindexes are desirable, the opposite is true of the inequality index and subindexes.

According to the Roma coverage subindex in health in 2017, North Macedonia had the highest average coverage, followed by Serbia; Albania and Kosovo are at the other end of the spectrum (Figure 3.24, panel a). North Macedonia led in the Western Balkans in 2017, with a Roma coverage subindex of 72.6 percent in health, primarily because of relatively high coverage in health insurance (ages 16+) and the self-reported unmet need for medical care.[113] Albania and Kosovo had a Roma coverage subindex in health of around 50 percent, largely because of low health insurance coverage.

In inequality, gaps are small compared with other priority areas, except documentation; Kosovo stands out because of an especially low Roma inequality subindex in health; Montenegro, followed by Albania and by Bosnia and Herzegovina, showed relatively high average inequality. Montenegro's relatively high inequality is the result of the deterioration observed between 2011 and 2017. At only 5.7 percent, Kosovo's Roma inequality subindex in health is among the lowest across all countries and all priority areas; only the inequality subindexes in documentation are lower. Kosovo had especially small gaps in health insurance coverage and the self-reported unmet need for medical care.

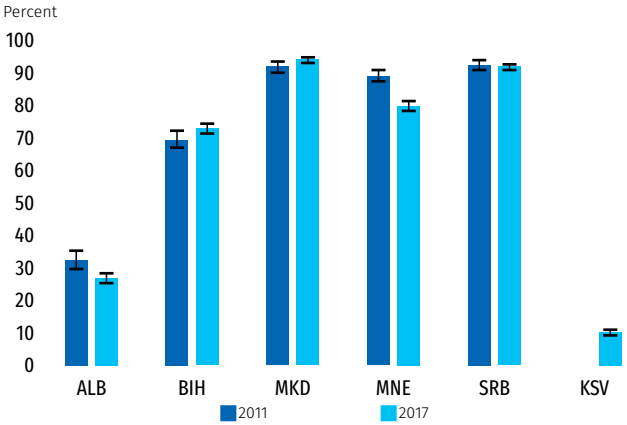
112 Self-perceived health status—the share of the population ages 16 or above that consider their health to be good or very good—is not itself a measure of coverage or access to service, but rather a health outcome.
113 For self-reported unmet need for medical care, the complement of the indicator in the Roma coverage index is used to show coverage.

Changes in Health Insurance Coverage, Ages 16+

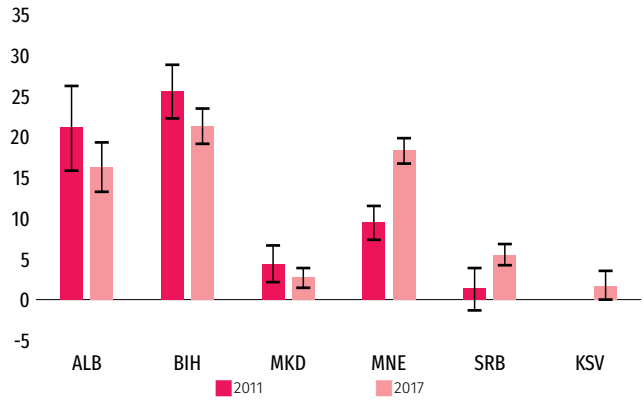
The trends in health insurance coverage among Roma are generally mixed: coverage declined in two countries, Albania and Montenegro, but rose slightly in two others, Bosnia and Herzegovina and North Macedonia; there was no change in Serbia (Figure 3.25, panel a; Box 3.3). The improvement in health insurance coverage in North Macedonia was not large because health insurance coverage among Roma was already relatively high there in 2011, at 92 percent. The decrease in Albania is worrisome: coverage among Roma only amounted to 27 percent in 2017; among neighboring non-Roma, the corresponding rate in 2017 was twice as high, though it also represented a deterioration relative to 2011.

Figure 3.25. **Health Insurance Coverage, Ages 16+, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals. Although the 90 percent confidence intervals intersect, the 2011–17 change in the gap in Bosnia and Herzegovina is statistically significant at the 10 percent level.

The gap in health insurance coverage worsened in Montenegro and Serbia, but improved in Bosnia and Herzegovina. In Montenegro, health insurance coverage fell among Roma, but rose among non-Roma, leading to a widening in the gap (Figure 3.25, panel b). In Serbia, the increase in the gap resulted from an expansion in coverage among non-Roma, but not among Roma; despite this increase, however, inequality in Serbia is relatively low, at only 6 percentage points. In all other countries, the data suggest there were improvements in inequality, though only in Bosnia and Herzegovina is the change statistically significant.

The coverage of identity cards appears to be a key explanatory factor in the fall in health insurance coverage in Montenegro. Individuals without identity cards contributed to half the 9 percentage point reduction in health insurance coverage in Montenegro, even though they only represented 17 percent of the sample. Health insurance coverage among individuals without identity cards fell from 75 percent in 2011 to only 46 percent in 2011; it also declined among people with identity cards, from 92 percent in 2011 to 87 percent in 2017. Since 2017, the only eligibility requirement for enrollment in the social health insurance scheme in Montenegro has been legal residence in the country, and at least 17 percent of Roma may not be able to prove residency because they lack identity cards.[114] Roma in more integrated areas, who were only sampled in 2017, also account for a significant share of the reduction in health insurance coverage observed in Montenegro.

114 According to survey data, however, not all individuals who report that they are covered by health insurance also report that they possess an identity card.

Box 3.3. Decomposition of Changes in Coverage and Population Shifts

Changes in coverage may be the result of changes in the mix of demographic groups in the population with different average coverage rates, for example, across sex, education, employment status, or geographical area, but also the result of changes in average coverage rates within demographic groups. The following decomposition helps disentangle these effects.

Let $Sh_i = WAi / WA$ be the covered population in group i as a share of the overall relevant population of the coverage indicator. The average coverage rate is then as follows:

$$C = sh_1 C_1 + sh_2 C_2, \quad (B3.3.1)$$

where C_1 is the coverage rate in group i, and $Sh_i = WAi / WA$.
Let $S_i = sh_i e_1 / e$ be the group shares of total coverage rates. The absolute change in coverage can be then decomposed by taking the total differential of the above equation, as follows:

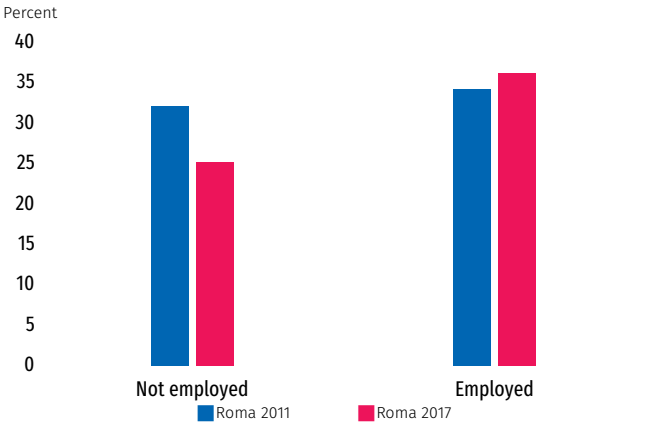
$$dlnC = sh_1 C_1 / C \, dln \, e_1 + sh_2 C_2 / C \, dln \, e_2 + (sh_1 C_1 / C - sh_2 C2 / C \, sh_1 / sh_2) \, dln \, sh_1 \quad (B3.3.2)$$

This equation shows that the average rate of the changes in participation is made up of two components: the share-weighted rates of employment changes within each group and the independent contribution of demographics or changes in the mix of demographic groups.

The last term can be written as $((e_1 - e_2) * sh_1) / e$. This means the population shift from group 2 to group 1 (the rising share of group 1) will reduce average labor force participation only if labor force participation is larger in group 1 than in group 2 ($e1 > e2$). This decomposition can be generalized for n groups and can be used to decompose other outcome dichotomous variables, including employment, health, and housing indicators. The approach is similar in spirit to the decomposition of changes in poverty rates into population shifts and intrasectoral effects found in Ravallion and Datt (1996).

The fall in health insurance coverage observed among Roma in Albania was driven by the decline in Roma employment. In Albania, health insurance coverage fell among Roma who were not employed, but rose slightly among Roma who were employed. In 2017, only 25 percent of employed Roma ages 16+ had health insurance, versus 36 percent among their employed counterparts (Figure 3.26). The relationship between employment and health insurance coverage can be explained by the fact that health insurance in Albania covers pensioners and formal sector workers who pay payroll contributions. Selected vulnerable population categories, such

Figure 3.26. **Health Insurance Coverage (Ages 16+) According to Employment Status, Roma Population in Albania**



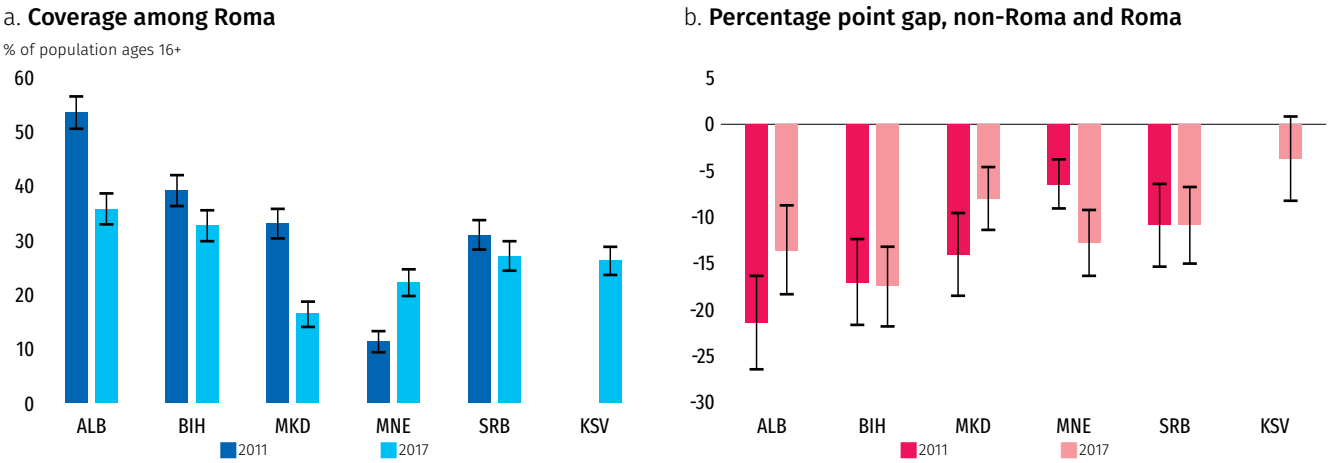
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.

as beneficiaries of social assistance, are also exempt from health insurance contributions. Together with the decline in informal employment, this may explain why the reduction in health insurance coverage (6 percentage points) was smaller than the decline in employment (24 percentage points).

Changes in the Self-Reported Unmet Need for Medical Care, Ages 16+

The self-reported unmet need for medical care was the top-performing health indicator; the proportion of Roma who self-reported an unmet need for medical care fell in all countries, except Montenegro, where it increased. The reduction in the unmet need for medical care was especially important in Albania and North Macedonia (18 and 17 percentage points, respectively) (Figure 3.27, panel a).

Figure 3.27. **The Self-Reported Unmet Need for Medical Care, 2011 and 2017**



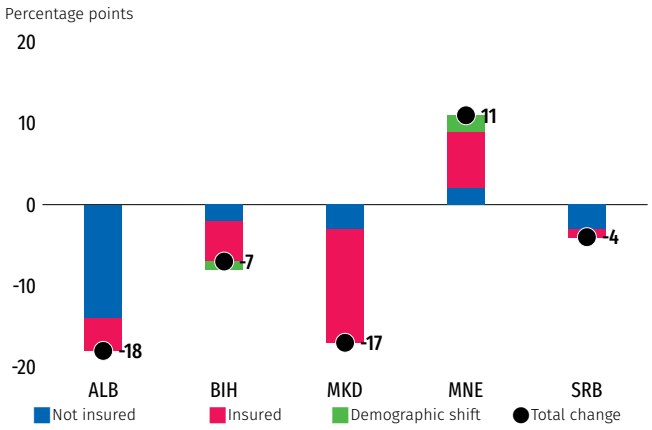
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. In panel a, lower levels imply coverage or access to the service. Thus, a decrease in the level of this indicator is considered an improvement. Error bars depict 90 percent confidence intervals.

In most countries, changes in the self-reported unmet need for medical care were led by the decreasing or increasing unmet need among those with health insurance; Albania and Serbia were exceptions. Across countries, the self-reported unmet need for medical care is generally lower among those with health insurance coverage.[115] Such individuals led the decline in the unmet need in Bosnia and Herzegovina and North Macedonia. Those with insurance also led the increase in the unmet need in Montenegro. However, the unmet need also rose among the uninsured, and the decrease in health insurance coverage also contributed, as can be seen by the small demographic shift in Figure 3.28, panel a. In Albania, health insurance coverage among Roma is low and fell between 2011 and 2017 (less than a third of Roma have health insurance, and coverage is also low at the national level). The decline in the self-reported unmet need was led by individuals who were not insured: the fall among this group contributed 80 percent of the overall 18 percentage point decline. In Serbia, the small improvement (decrease) in the self-reported unmet need was also mainly led by falling unmet need among individuals without health insurance (Figure 3.28 panel a).

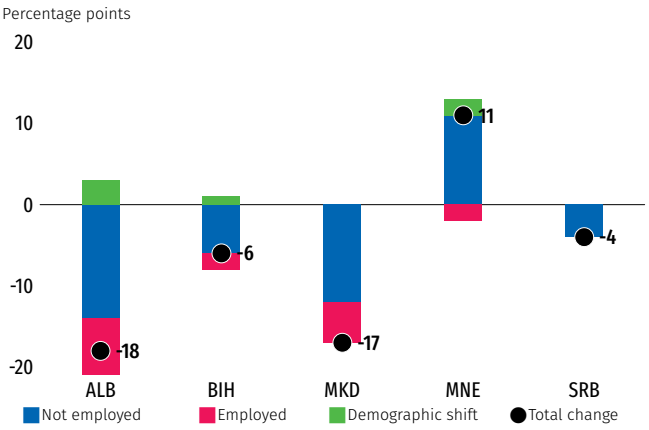
115 Serbia is an exception; in 2017, the self-reported unmet need for medical care was lower among individuals without health insurance.

Figure 3.28. **Decomposition of the Changes in the Self-Reported Unmet Need for Medical Care among Roma, 2011–17**

a. **By health insurance status**



b. **By employment status**

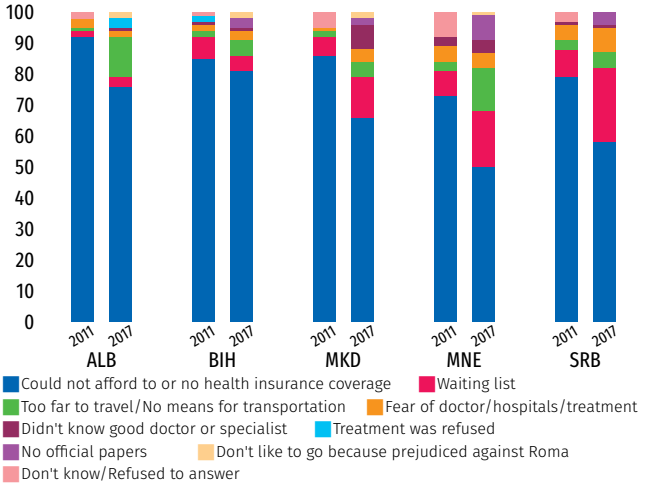


Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.

In all countries, changes in the self-reported unmet need for medical care were driven by Roma who were out of work. Roma who were out of work contributed to over 70 percent of the fall in the self-reported unmet need for medical care observed in four countries and to over 90 percent of the rise in Montenegro (Figure 3.28, panel b). Roma without work were the main contributors to the overall results partly because they represent most Roma ages 16+ in all countries; however, in some cases, the changes observed among this group were also the largest.

Figure 3.29. **Affordability Fell in Importance as a Reason for Unmet Needs in Medical Care, Roma, 2011–17**

Reasons for self-reported unmet need for medical care among Roma, %



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Data are for randomly selected respondents ages 16+.

Among people who reported an unmet need for medical care, affordability declined in importance as a barrier between 2011 and 2017, especially in Montenegro. In all countries between 2011 and 2017, although most Roma tend to report affordability as the main barrier to meeting needs, there was a significant decrease in the share of Roma reporting that they could not afford care (Figure 3.29).[116] The fall was especially significant in Montenegro, which is also the only country that observed an increase in unmet needs. In Montenegro in 2017, only 50 percent of Roma reported unmet needs because of cost, versus 73 percent in 2011. Rising in importance among the reasons for unmet needs is the requirement to wait by joining a waiting list, the distance required to travel to obtain care, and the lack of proper official documents.[117] The decline in the share of Roma reporting high cost as the reason for unmet needs occurred despite narrowing health insurance coverage in Albania and Montenegro. Individuals without health insurance

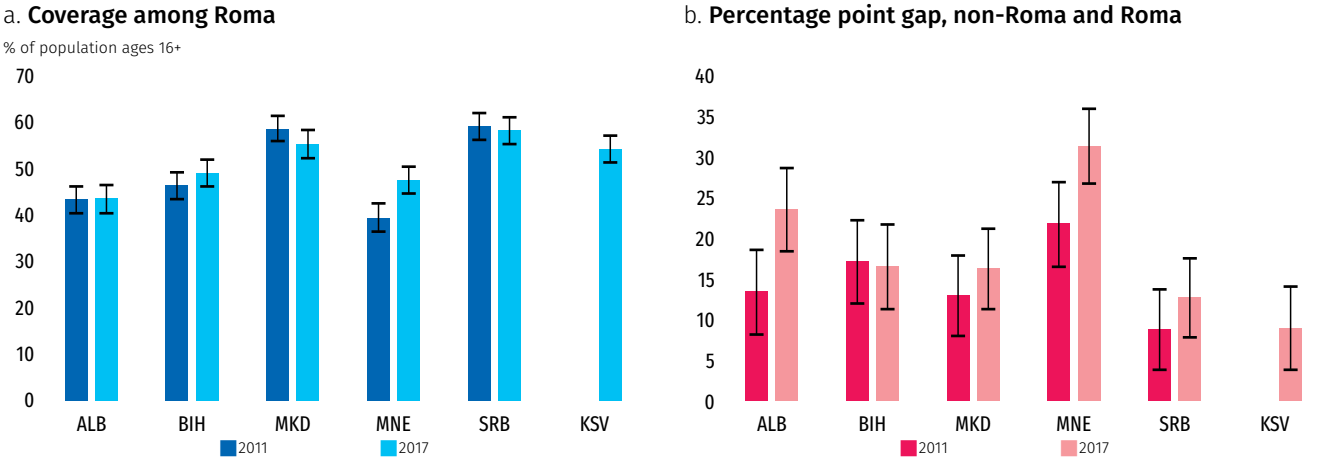
116 A fall was also observed among non-Roma neighbors in all countries except Bosnia and Herzegovina.
117 In Montenegro, 8 percent of individuals reporting an unmet need for medical care said the lack of proper official documents was the reason for the inability to obtain medical care, highlighting the importance of identity card coverage in access to health services.

led in the decline in self-reported unmet needs for medical care in Albania and Serbia, whereas those with insurance led in the increase in unmet needs in Montenegro.

Changes in the Use of Preventive Health Care Services, Ages 16+

There was no statistically significant change in the use of preventive health care services among Roma in any country except Montenegro, where the indicator improved (Figure 3.30, panel a).[118] The share of people ages 16 or older using preventive health care services in Montenegro was particularly low in 2011, at only 39 percent; it rose to 48 percent in 2017, though the share is still among the lowest in the region, ahead only of Albania.

Figure 3.30. **Use of Preventive Health Care Services, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

The gap between Roma and their non-Roma neighbors in the use of preventive health care services rose in Albania and Montenegro. In Montenegro, the use of preventive health care services rose among non-Roma neighbors, but the improvement in use was even greater among Roma. In Albania, no change was observed among Roma, but there was a substantial increase among non-Roma, leading to a widening in the usage gap between Roma and non-Roma.

In Montenegro, the increase in the use of preventive care was led by individuals with health insurance coverage. The use of preventive health services was relatively stable among Roma in all countries. This was in contrast to changes, mostly improvements, in the self-reported unmet need for medical care, implying that, although access to care may be improving, little effort was being made across countries to encourage Roma to use preventive care.[119] This is especially worrisome given the lower health status of Roma. Montenegro is an exception: the use of preventive care services among Roma rose by 8 percentage points. This was mostly driven by individuals who had health insurance, accounting for 121 percent of the overall rise. The use of preventive health services among this group expanded from

118 The data also suggest there was an improvement in this indicator among Roma in Bosnia and Herzegovina; however, at only 3 percentage points, the change was not statistically significant at the 10 percent level.

119 An important factor that cannot be accounted for regarding the self-reported unmet need for care is whether there were changes in the need for care initially. The survey asks if there was an unmet need for care, but not if there was any overall need for care. Thus, the survey data do not allow the changes in the general need for medical care to be tracked; they only allow the identification of the unmet needs.

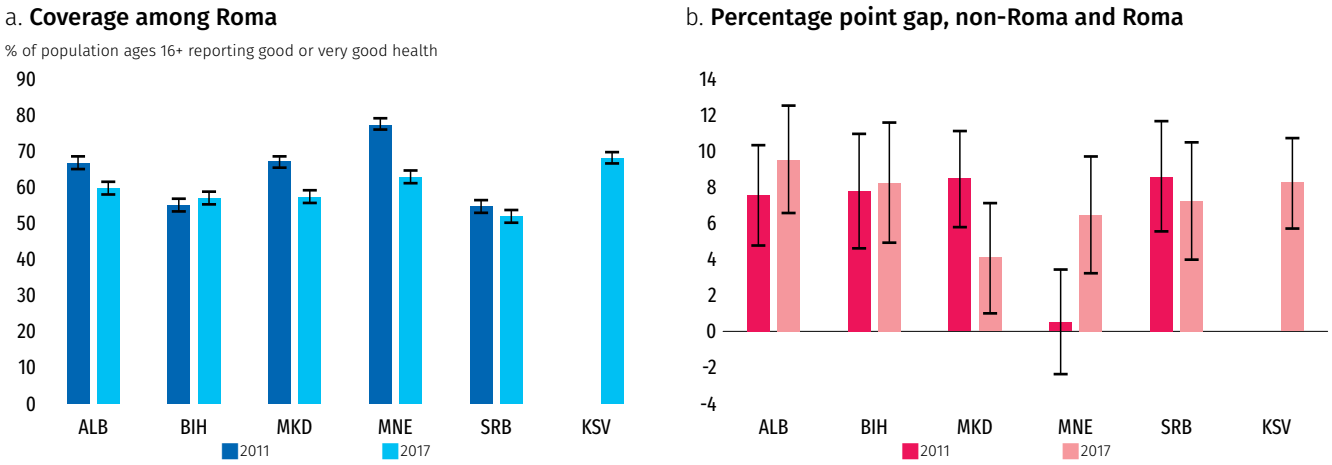
41 percent in 2011 to 52 percent in 2017; among individuals without health insurance, the use rose from 26 percent to 31 percent. The rise in the indicator was also mostly driven by Roma who were employed, representing 6 of the 8 percentage point increase.

Changes in Self-Perceived Health, Ages 16+

Self-perceived health among Roma is on the decline in all countries except Bosnia and Herzegovina (Figure 3.31, panel a). Self-perceived health—defined as the share of a population ages 16 and above who perceive their health status as good or very good—declined especially in North Macedonia and in Montenegro (by 15 and 10 percentage points, respectively).

The ethnic gaps in self-perceived health were relatively small in all countries, but the gap was narrowing in North Macedonia, and the gap was widening in Montenegro. The change in North Macedonia occurred because the share of those who perceived their health status as good or very good fell more among neighboring non-Roma than among Roma. In Montenegro, the decline in self-perceived health worsened among neighboring non-Roma, but was smaller than the corresponding decline among Roma.

Figure 3.31. **Self-Perceived Health, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

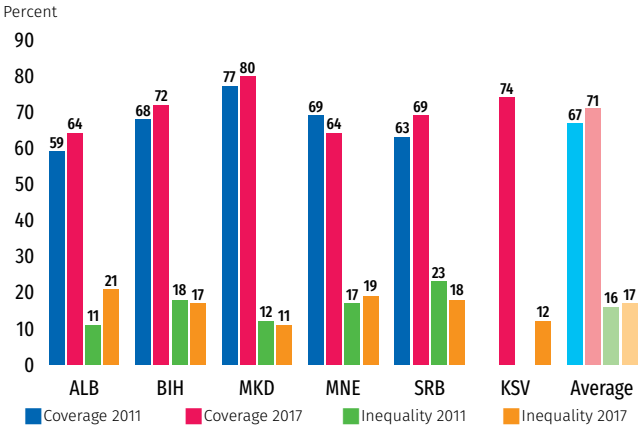
Priority Area 4: Changes in Coverage and Inequality in Housing and Access to Essential Services

In housing, which includes access to essential services such as electricity and water, most countries exhibited improvements in both coverage and equality; Albania stood out given the significant worsening in inequality there; Montenegro was the only country with worsening coverage. The Roma housing coverage and inequality subindexes include overcrowding and access to four essential services, namely, electricity, piped water inside the dwelling, a connection to public sewerage or a waste water tank, and waste collection. Both Bosnia and Herzegovina and North Macedonia improved in coverage, but there was little or no change in inequality. Serbia stood out as a relatively strong performer, with

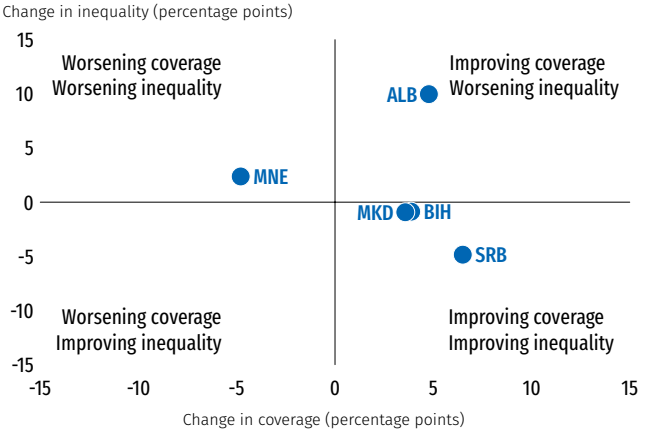
significant improvement in both coverage and inequality (Figure 3.32). It had exhibited relatively low coverage and high inequality in housing in 2011. After significant improvement in 2017, average coverage and inequality in housing are now close to the simple average across the six countries in the region.

Figure 3.32. **Housing: Roma Coverage and Inequality Subindexes, 2011 and 2017**

a. **Housing subindexes**



b. **Changes in the housing subindexes, 2011–17**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: changes in inequality for BIH and MKD. The average shown is a simple average for all countries (KSV not included in 2011). Though higher levels of the Roma coverage index and subindexes are desirable, the opposite is true of the inequality index and subindexes.

The 2017 Roma coverage subindex for housing ranges from a low of 64.1 percent in Albania and Montenegro to a high of 80.3 percent in North Macedonia (Figure 3.32, panel a). After the subindex on documentation, these are among the highest coverage levels across the five priority areas. The relatively high coverage in North Macedonia occurred because the coverage levels were higher than average across all housing indicators, especially the connection to public sewerage or waste water tanks and access to piped water inside the dwelling. In Albania and Montenegro, relatively low coverage arose largely because of the low access to piped water inside the dwelling (Albania) and the low connection to public sewerage or waste water tanks (Montenegro).

The gaps in inequality are relatively narrow, though generally slightly wider than the gaps in health. North Macedonia stands out because of an especially low Roma inequality subindex in housing, closely followed by Kosovo. Albania and Montenegro, followed by Serbia, exhibited relatively high average inequality. Albania's relatively high inequality is the result of the deterioration observed between 2011 and 2017. In 2011, inequality in housing coverage in Albania was relatively low. Albania's Roma inequality subindex in housing, at 21.3 percent, is more than twice the subindex of North Macedonia, at 10.8 percent.

Changes in Access to Essential Services

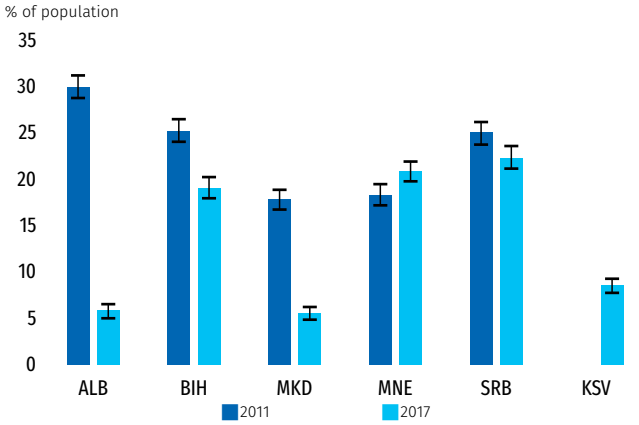
In access to essential services, the indicator that showed the most improvement among the Roma across countries was waste collection, followed by electricity. The coverage of waste collection among Roma improved in four countries; the improvement was particularly important in Albania and North Macedonia (Figure 3.33, panel a).[120] In these two countries, this indicator is the main driver behind

120 In the case of waste collection, the complement of the indicator on waste never collected is included in the Roma coverage subindex.

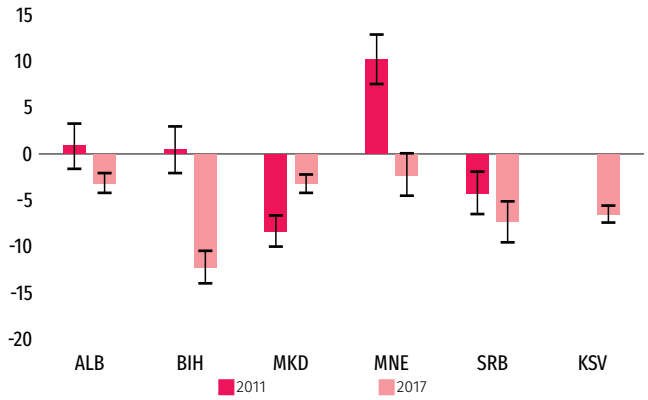
the overall improvement in coverage in housing. Access to electricity among Roma increased in three countries, although the rise was generally small. There was a significant decline in Albania, and coverage also fell in North Macedonia (Figure 3.34, panel a).

Figure 3.33. **Waste Never Collected, 2011 and 2017**

a. **Coverage among Roma**



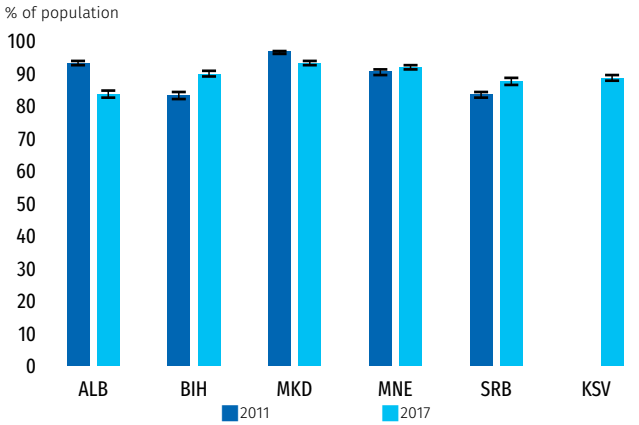
b. **Percentage point gap, non-Roma and Roma**



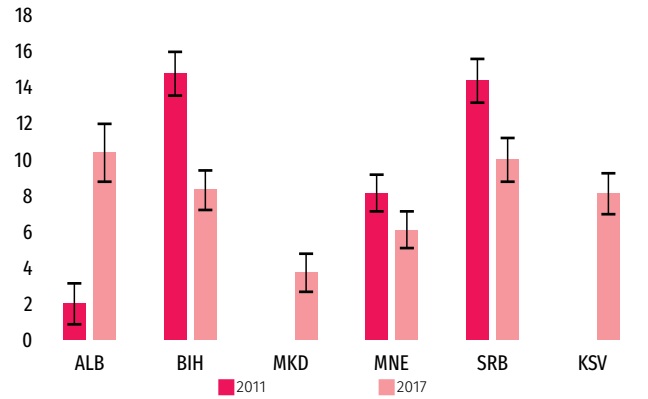
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. In panel a, lower levels imply coverage or access to the service. Thus, a decrease in the level of this indicator is considered an improvement. Error bars depict 90 percent confidence intervals.

Figure 3.34. **Access to Electricity, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**

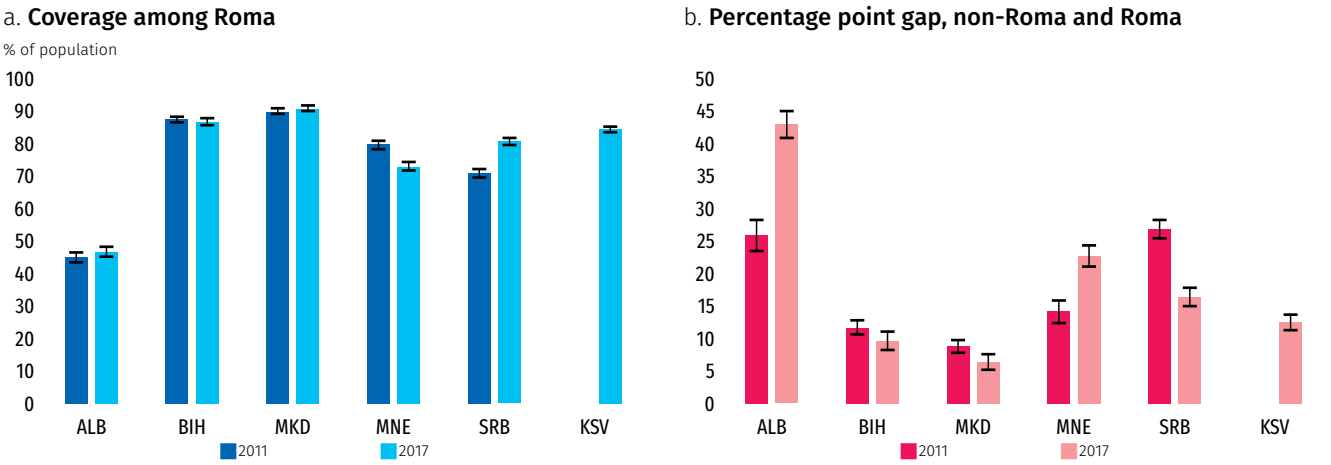


Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

Serbia is the only country that registered improvement in access to piped water inside the dwelling or connections to public sewerage or waste water tank (Figure 3.35, panel a; Figure 3.36, panel a).[121] In contrast, Montenegro showed reductions in these two indicators. Albania also experienced a reduction in connections to public sewerage or the availability of a waste water tank.

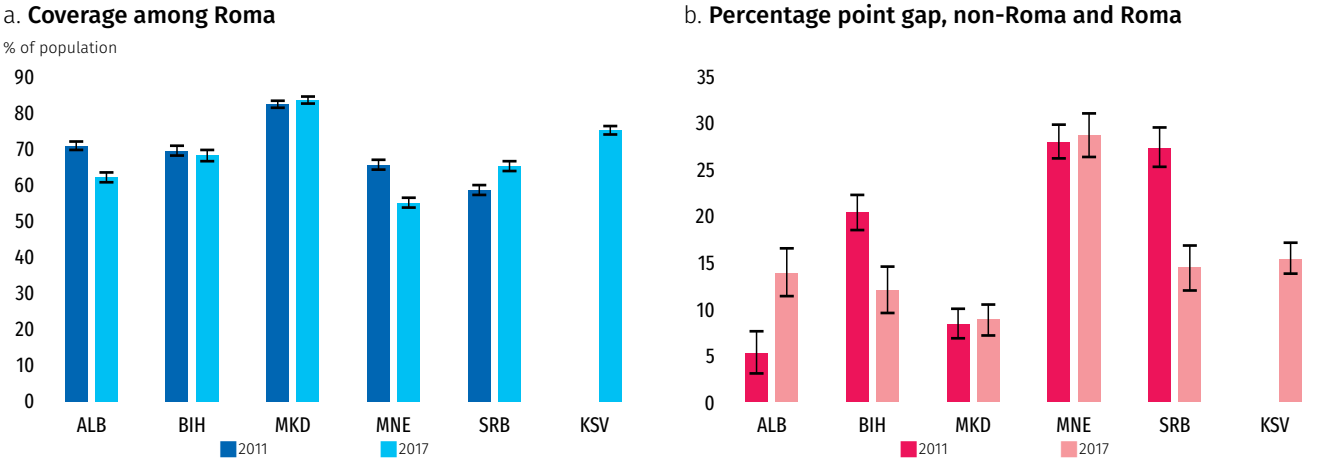
121 This indicator cannot be directly constructed for 2011 because there is no question on access to piped water in the survey; there is only information regarding whether piped water inside the dwelling is the main source of potable water. In 2017, there is information on access to piped water inside the dwelling as well as whether piped water inside the dwelling is the main source of potable water. Using 2017 data, the share of households among Roma and non-Roma who have access to piped water inside the dwelling and also use it as their main source of potable water is estimated. A proxy for access in 2011 is then constructed using the 2017 estimated ratios. This assumes that, conditional on access to piped water inside the dwelling, the probability of using piped water inside the dwelling as the main source of potable water is the same in 2011 and in 2017.

Figure 3.35. **Piped Water Inside the Dwelling, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

Figure 3.36. **Connection to Public Sewerage or Waste Water Tank, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

All countries that witnessed an improvement in access to electricity also had a reduction in the gap relative to neighboring non-Roma; likewise, those that experienced a reduction in access, also showed an increase in inequality (Figure 3.34, panel b). In all countries, non-Roma neighbors generally enjoyed close to universal coverage in electricity in 2011. This means there was little room for improvement in this indicator among non-Roma, partly explaining why ethnic gaps were reduced in countries where access to electricity among Roma rose. In countries in which access fell (Albania and North Macedonia), the fact that the gap also widened shows that the reduction in access to electricity is a particular Roma issue.

While significant improvements were registered in access to waste collection among Roma in most countries, this was also the case among neighboring non-Roma; the ethnic gap associated with this indicator widened in most countries (Figure 3.33, panel b). Exceptions are North Macedonia, where the increase in coverage among Roma was larger, and the gap narrowed, and Serbia, where the small narrowing of the gap (by 3 percentage points) suggested by the data is not statistically significant.

The inclusion of more integrated Roma in the 2017 survey sample is not a driving factor behind the changes observed in access to electricity across countries. In 2011, only areas with greater than 40 percent Roma concentration were sampled; the 2017 sample included areas in which Roma represented between 10 percent and 40 percent of the population, and these areas made up roughly 50 percent of the sample in each country. Across countries, this change in sampling did not play a substantial role in the changes observed in access to electricity.

Except in Serbia, the inclusion of well-integrated Roma in the 2017 survey sample is important in explaining changes in the access to piped water in the dwelling. In Albania, Bosnia and Herzegovina, and North Macedonia, Roma in more integrated areas enjoyed greater access to piped water inside the dwelling than Roma in areas with higher concentrations of Roma. Had these more integrated areas not been included in the 2017 sample, these countries would have observed a fall in access to piped water inside the dwelling. Instead, they observed no statistically significant change between the two survey years. Nonetheless, the inclusion of Roma in more integrated areas led to the lower access to piped water inside the dwelling observed among Roma in Montenegro.[122] In contrast, in Serbia, Roma living in predominantly Roma areas were the driving factor behind the overall improvement in the indicator and more than compensated for the fact that Roma in more integrated areas had lower access to piped water inside the dwelling.

Had more integrated Roma not been included in the 2017 sample, a greater decline in connections to public sewerage or waste water tanks would have been observed in Albania, Bosnia and Herzegovina, and Serbia. In particular, the decline would have been large in Bosnia and Herzegovina (11 percentage points, versus the observed 1 percentage point decline).[123] In Montenegro, the fall observed in connections to public sewerage or waste water tanks is almost entirely driven by Roma living in more highly concentrated areas.

In all countries except Montenegro and Serbia, changes in the indicator on waste never collected were driven by Roma living in areas with higher Roma concentrations. The inclusion of more integrated Roma in the 2017 sample is not a driving factor of the reduction in Roma reporting that waste is never collected in Albania, Bosnia and Herzegovina, and North Macedonia. The more integrated Roma are the main driver behind the slight increase in this indicator in Montenegro and the decline in Serbia.

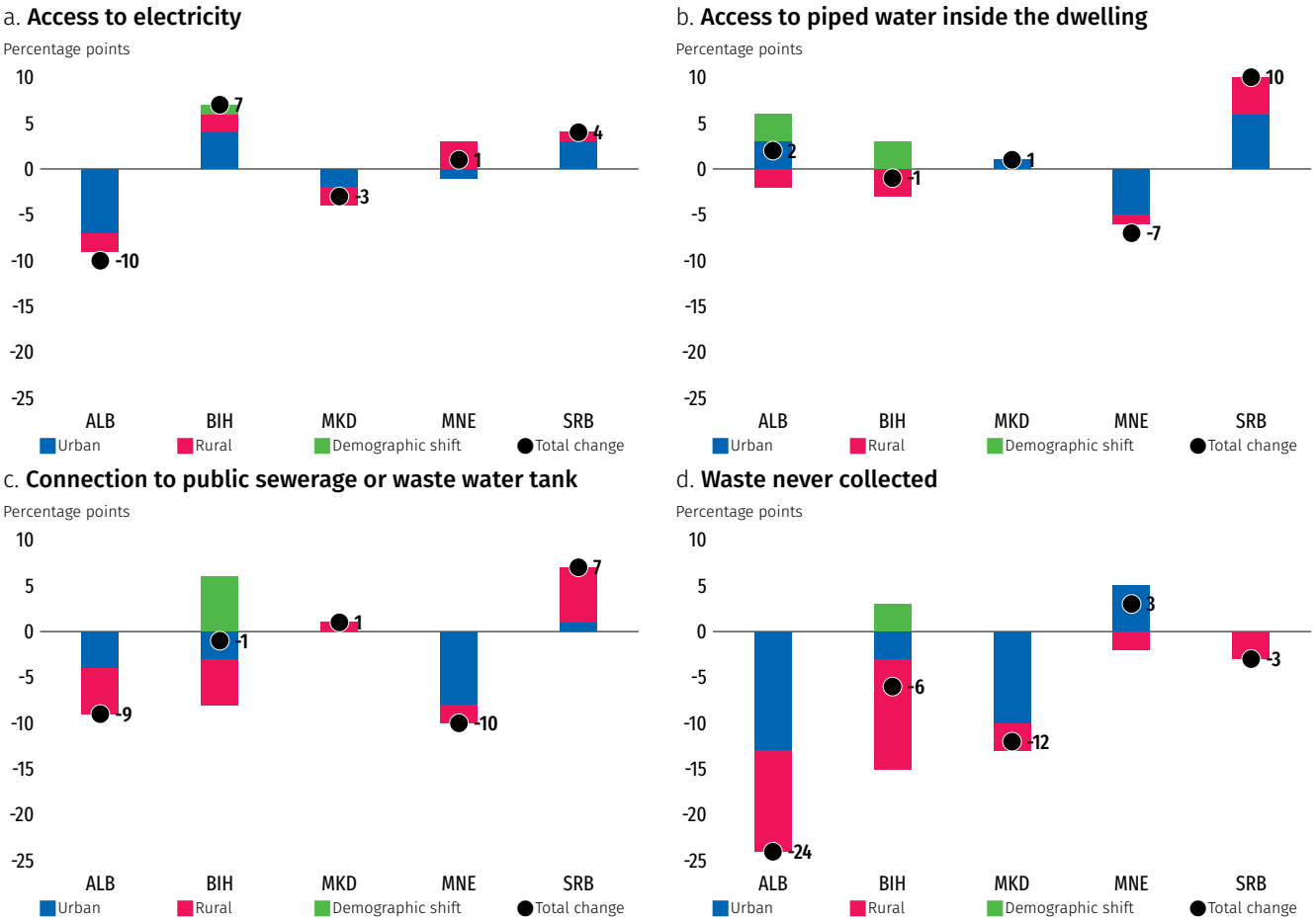
In most countries, changes in the access to essential services among urban Roma were also important drivers behind changes in coverage. Most sampled Roma live in urban areas, and the share was somewhat stable across countries between the two survey years, except in Bosnia and Herzegovina, where it rose from 49 percent in 2011 to 80 percent in 2017. The concentration of Roma in urban areas partly explains why urban Roma tended to lead in the changes observed in the access to essential services between 2011 and 2017. This is the case, for example, of the changes in access to electricity in all countries and of the change in access to piped water in Albania (increase), Montenegro (decrease), and Serbia (increase), as well as the decline in connections to public sewerage or waste water tanks in Montenegro and the change in Roma reporting that waste is never collected in Albania (decrease), North Macedonia (decrease), and Montenegro (increase). In some cases, however, the observed

122 Had the integrated areas not been included, Montenegro would have still shown a decrease in this indicator, although only of 2 percentage points, and this would not have been statistically significant.

123 The observed decline is not statistically significant at the 10 percent level. However, if the sample is restricted to only Roma in areas of high Roma concentration, the 11 percentage point decline becomes statistically significant.

changes were led by Roma in rural areas even though these Roma are a minority among Roma in all countries. For instance, in Bosnia and Herzegovina, although access to piped water inside the dwelling was stable in urban areas, such access shrank significantly in rural areas (by 6 percentage points). Because there was also a substantial increase in the share of Roma sampled in urban areas, the net effect was a decline of only 1 percentage point that was not statistically significant at the 10 percent level.[124] Rural areas also led in the change in the access to public sewerage or waste water tanks in Albania (decline) and Serbia (increase). On the share of Roma who report that waste is never collected, urban Roma led in the decline in North Macedonia and the increase in Montenegro. In contrast, in Bosnia and Herzegovina, the decline was led by rural Roma (Figure 3.37).

Figure 3.37. **Decomposition of Percentage Point Changes in Access to Essential Services, by Urban or Rural Location, Roma, 2011–17**



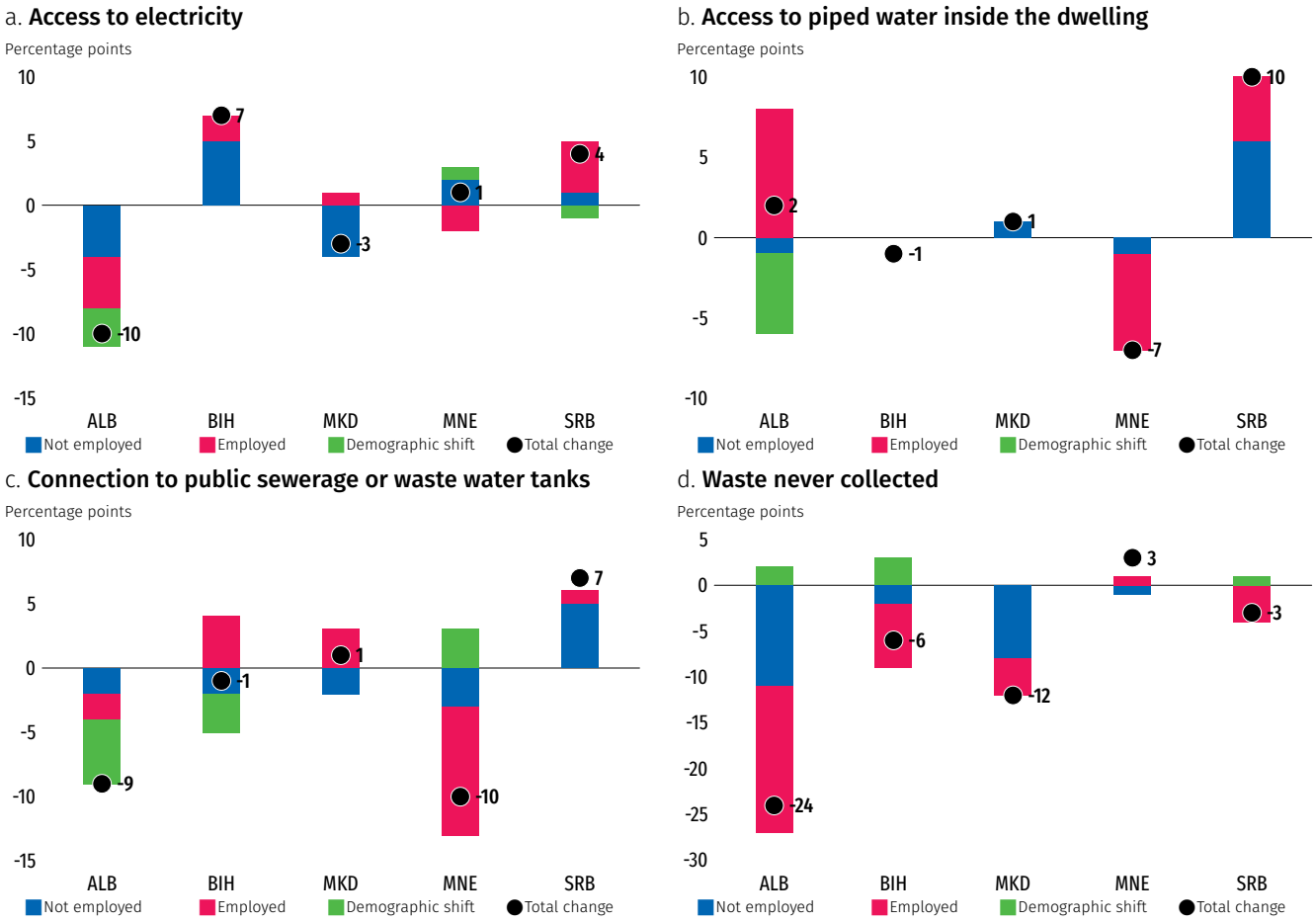
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The total changes in the following countries are not statistically significant at the 10 percent level: for piped water inside the dwelling: ALB, BIH, and MKD; for connection to public sewerage or waste water tanks: BIH and MKD.

The contribution of the employment status of the household head to changes in access to services among Roma varies across countries. Across all countries in 2017, most Roma were living in households in which the household head was not employed. Between 2011 and 2017, there were significant increases in the relative size of this group, as employment fell in most countries. However, this group did not necessarily always contribute the most to changes in the access to services. In Albania, access

124 Because of the decline in access to piped water inside the dwelling among Roma in rural areas in Bosnia and Herzegovina, an urban-rural gap has emerged in this indicator.

to electricity fell somewhat more among Roma in households with employed household heads than among households with unemployed heads. They each contributed similarly to the overall decline. In Bosnia and Herzegovina, Roma in households in which the household head is not employed led the increase in the access to electricity: not only did access to electricity increase the most among this group, the group also represented 86 percent of the weighted Roma sample in 2017. In contrast, in North Macedonia, access to electricity fell among this group and also led in the 3-percentage point decline observed in this country. Access rose among Roma in households with employed heads, but the increase was smaller. Montenegro was a mixed case: access to electricity rose among Roma in households with heads who were not employed, but fell among households with employed heads. In Serbia, the 4 percentage point increase in electricity access was led by Roma in households with employed heads (Figure 3.38).

Figure 3.38. **Decomposition of Changes in Access to Essential Services, by Employment Status of the Household Head, Roma, 2011–17**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The total changes in the following countries are not statistically significant at the 10 percent level: for piped water inside the dwelling: ALB, BIH, and MKD; for connection to public sewerage or waste water tanks: BIH and MKD.

Roma in households with employed heads lead in the decrease in the access to piped water and connections to public sewerage or waste water tanks in Montenegro; the fall observed among this group was larger than that among Roma in households with nonworking heads. In Montenegro, the fall in access to piped water inside the dwelling and connections to public sewerage or waste water

tanks was led by Roma in households with employed heads: although this group also fell significantly in size, the fall in coverage observed among this group was significantly larger.[125]

The large drop in employment among Roma observed in Albania appears to have had an impact on the decline in connections to public sewerage or waste water tanks.[126] The data also suggest that the fall in employment may explain why access to piped water did not increase between 2011 and 2017 among Roma in Albania, leading to widening inequality relative to non-Roma neighbors.[127] In Albania, access to piped water inside the dwelling did not change substantially between the two survey years, though it did rise among households with employed heads. However, because this group is relatively small and also shrank in size, the net effect was an increase of only 2 percentage points that is not statistically significant at the 10 percent level.[128] In connections to public sewerage or waste water tanks, the decrease observed in Albania was similar among Roma living in households with employed and nonworking household heads; however, Roma in households with nonworking heads came to represent 77 percent of all sampled Roma (up from only 36 percent in 2011). This demographic shift led in the overall 9 percentage point decline in this indicator (Figure 3.38, panels b and c).

In Serbia, the only country with a significant increase in access to piped water inside the dwelling or in connections to public sewerage or waste water tanks between the two survey years, Roma in households with nonworking heads led in the increase (Figure 3.38, panels b and c). The rise in coverage was larger among this group, and the size of the group also rose.[129]

The fall in the percentage of Roma reporting that waste is never collected in Albania, Bosnia and Herzegovina, and Serbia was led by Roma in households with employed heads. Roma in households with heads who were out of work led in the change in this indicator in North Macedonia (decline) and Montenegro (increase) (Figure 3.38, panel d).[130]

Changes in Overcrowding and in Rooms per Household Member

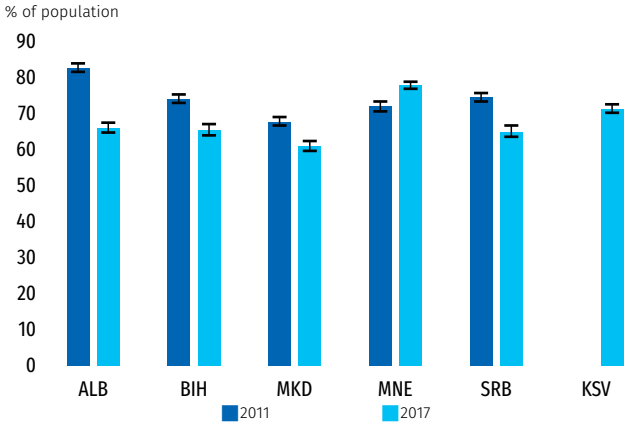
The overcrowding rate fell in all countries except Montenegro.[131] Overcrowding improved in all countries except Montenegro, and the improvement was especially pronounced in Albania, where it fell from 82 percent in 2011 to 66 percent in 2017 (Figure 3.39, panel a). Across all countries, Roma also now have between 0.1 and 0.2 more rooms per household member than in 2011, except in Montenegro, where they now have 0.1 fewer rooms (Figure 3.40, panel a).[132]

The improvements in overcrowding were generally also witnessed among neighboring non-Roma, resulting in relatively stable gaps across countries. Albania is an exception: the relatively small gap

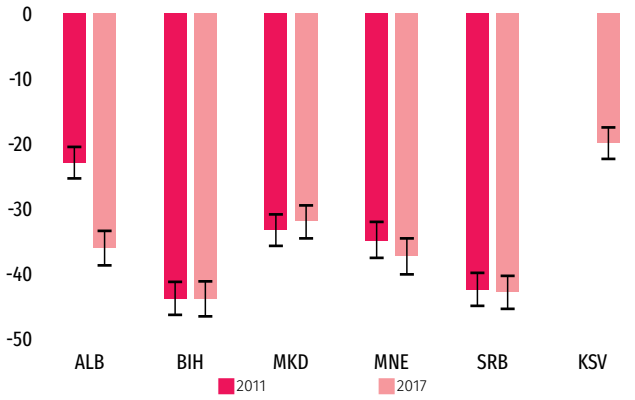
125 In Montenegro in 2011, 53 percent of Roma were in households with employed heads; by 2017, the share had fallen to only 26 percent.
126 Between 2011 and 2017, the employment rate among working-age Roma fell from 42 percent to 18 percent.
127 The data suggest an increase of two percentage points between 2011 and 2017; however, this increase is not statistically significant at the 10 percent level.
128 Access to piped water inside the dwelling among Roma in households with employed heads in Albania rose from 44 percent to 56 percent between 2011 and 2017. This group represented 64 percent of all Roma in 2011; in 2017, however, it only represented 23 percent.
129 Roma in households with nonworking heads represented 58 percent of all Roma in 2011; in 2017, they represented 67 percent.
130 A decrease in this indicator is considered desirable.
131 The overcrowding rate is defined as the share of the population living in an overcrowded household. Following the Eurostat definition, a person is considered to be living in an overcrowded household if the household does not have at its disposal a minimum number of rooms, as follows: one room for the household, one room per couple in the household, one room for each single person ages 18 or above, one room per pair of single people of the same gender ages 12–17, one room for each single person ages 12–17 and not included in the previous category, and one room per pair of children under age 12. Kitchens, bathrooms, corridors, and rooms rented out or used by another household are not counted as rooms.
132 This indicator is not included in the Roma coverage and inequality subindexes in housing. Kitchens, bathrooms, corridors, and rooms rented out or used by another household are not included.

Figure 3.39. **Overcrowding Rate, 2011 and 2017**

a. **Coverage among Roma**[a]



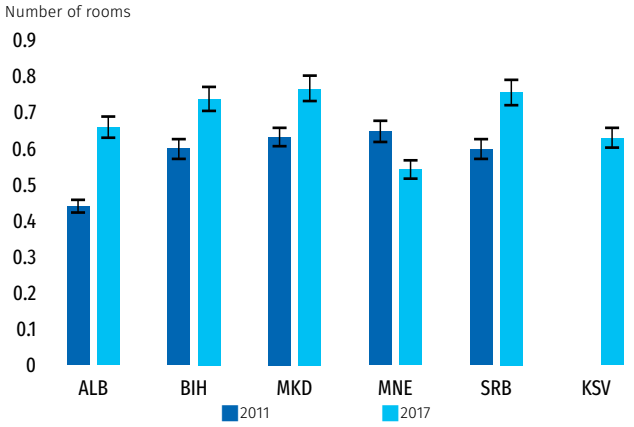
b. **Percentage point gap, non-Roma and Roma**



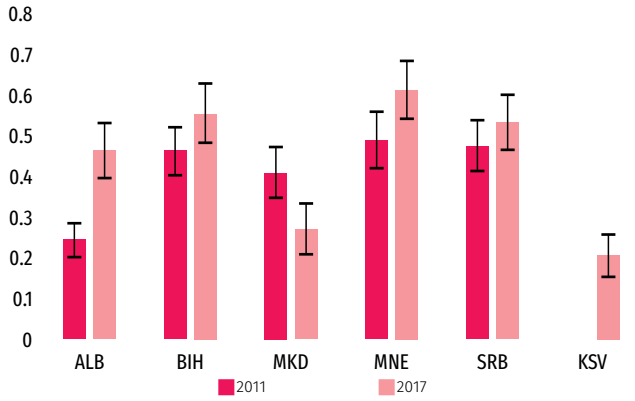
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C.
a. In coverage, lower levels are desirable. Error bars depict 90 percent confidence intervals.

Figure 3.40. **Rooms per Household Member, 2011 and 2017**

a. **Coverage among Roma**



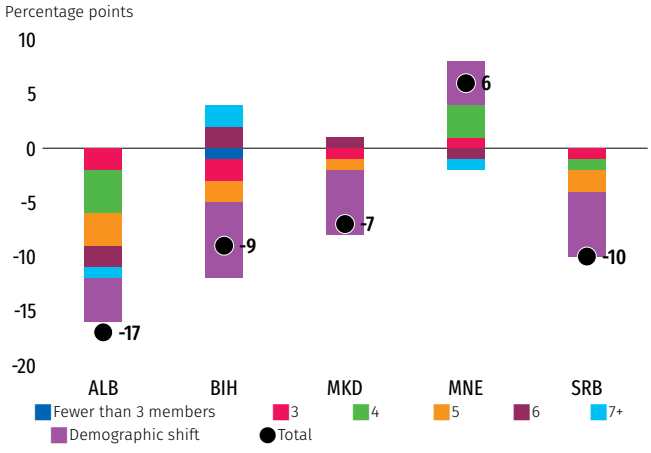
b. **Gap, non-Roma and Roma**



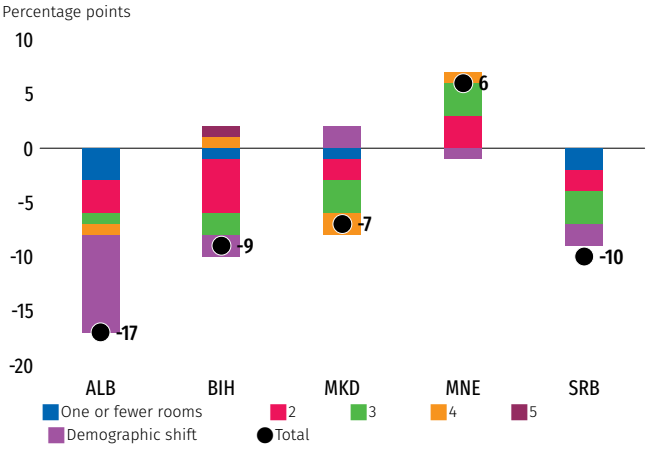
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. This indicator is not included in the Roma coverage and inequality indexes. Error bars depict 90 percent confidence intervals.

Figure 3.41. **Decomposition of Changes in Overcrowding Rates, Roma, 2011–17**

a. **By household size**



b. **By number of rooms**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.

observed in 2017 is now more similar to the gaps in other countries in the region except Kosovo (Figure 3.39, panel b). Overcrowding fell the most in Albania, but the gap widened because of the larger decline among neighboring non-Roma.[133] Inequality in rooms per household member showed mixed results across countries between 2011 and 2017. The gap in rooms per household member rose in Albania and Montenegro, but improved in North Macedonia (Figure 3.40, panel b).

Changes in the number of household members explain much of the trend in overcrowding among Roma across countries. One of the most important changes occurring in housing across countries, with the exception of Montenegro, is a reduction in the share of the population living in overcrowded households. This indicator is based on the Eurostat definition and is dependent on household composition and the number of rooms in the dwelling.[134] All countries in which overcrowding improved between 2011 and 2017 experienced a reduction in average household size. Across countries where overcrowding improved, changes in household size—associated with a demographic shift (Figure 3.41, panel a)—led to a reduction in overcrowding of between 4 and 7 percentage points, explaining between 24 percent (Albania) and 91 percent (North Macedonia) of the total percentage point changes observed. In Montenegro, where overcrowding rose, household size increased between 2011 and 2017, and the demographic shift in household size explains 69 percent of the total increase in overcrowding, or 4 percentage points of the total 6 percentage point increase observed between 2011 and 2017.

Changes in the number of rooms in dwellings inhabited by Roma also contributed to the trend observed in overcrowding, but to a lesser extent. The average number of rooms in the dwelling increased in all countries except in North Macedonia. This change explains part of the improvement observed in overcrowding, though, in general, to a lesser extent than the change in the number of household members associated with a demographic shift (see Figure 3.41, panel b). Albania stands out, however, because the increase in the number of rooms explains 9 of the 17 percentage point change in overcrowding in that country. In Montenegro, an increase in the number of rooms per dwelling helped mitigate the increase in overcrowding among Roma; had the number of rooms per dwelling remained the same, overcrowding might have increased by an additional percentage point. In North Macedonia, the average number of rooms per dwelling among Roma decreased. In this case, had this number remained the same, overcrowding could have decreased by an additional 2 percentage points.

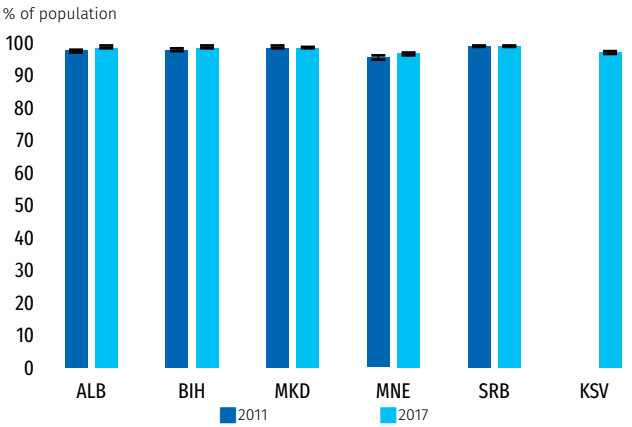
Priority Area 5: Changes in Coverage and Inequality in Documentation

Countries generally improved in the coverage and equality in documentation, but, because of high coverage and low inequality in 2011, only relatively small changes are observed in the Roma coverage and inequality subindexes in documentation. Only two indicators make up the Roma coverage and inequality subindexes in documentation (identity cards and birth certificates). Coverage in both areas was already relatively high in 2011. This is especially the case of birth certificates, where coverage was nearly universal in 2011, at between 95 percent and 99 percent (Figure 3.42, panel a). The coverage of identity cards was also relatively high in 2011, above 90 percent in most countries. For this reason, the changes in coverage were relatively small, even if statistically significant sometimes (Figure 3.43). In inequality, gaps in the coverage of birth certificates and identity cards were also relatively small in

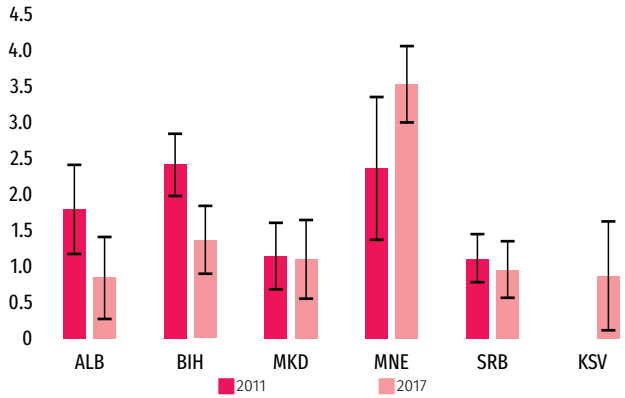
133 Overcrowding among non-Roma neighbors in Albania exhibited an especially large decline, from 60 percent in 2011 to 30 percent in 2017.
134 The number of household members and their ages and sex influence the overcrowding rate (see above).

Figure 3.42. **Birth Certificates, 2011 and 2017**

a. **Coverage among Roma**



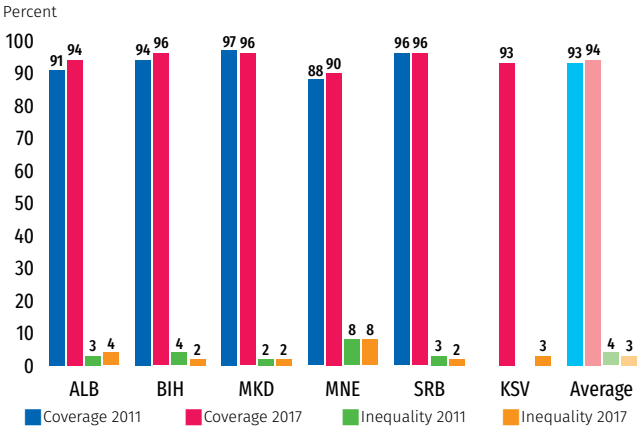
b. **Percentage point gap, non-Roma and Roma**



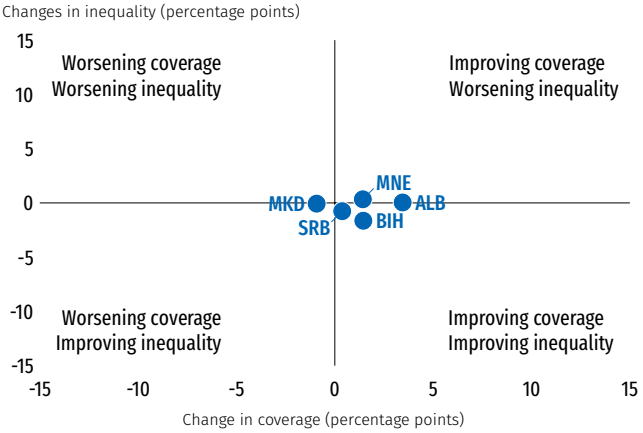
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

Figure 3.43. **Documentation: Roma Coverage and Inequality Subindexes, 2011 and 2017**

a. **Documentation subindexes**



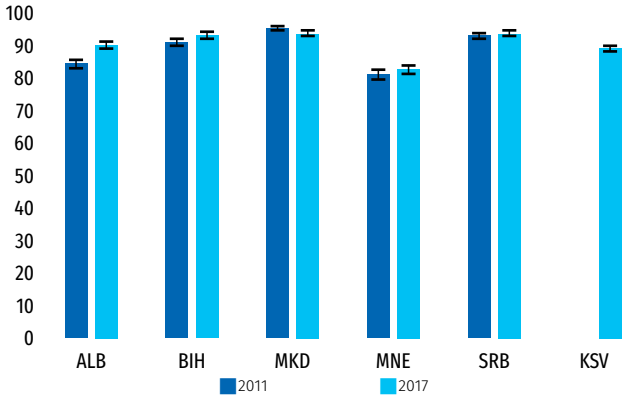
b. **Changes in the documentation subindexes, 2011–17**



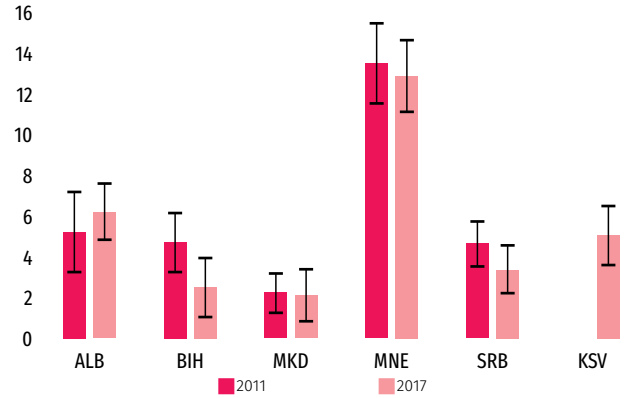
Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The Average shown is a simple average for all countries (KSV not included in 2011). Though higher Roma coverage indexes and subindexes are desirable, the opposite is true of the inequality index and subindexes. The following changes are not statistically significant at the 10 percent level: changes in inequality in MKD and SRB.

Figure 3.44. **Identity Cards, 2011 and 2017**

a. **Coverage among Roma**



b. **Percentage point gap, non-Roma and Roma**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: For a full list, including non-Roma and gender-disaggregated data, see Appendix C. Error bars depict 90 percent confidence intervals.

2011, as would be expected given the high coverage. The latter also explains why changes in inequality were not large between 2011 and 2017 (generally less than 1 percentage point).

Despite relatively small changes in documentation coverage and inequality, the increase in the coverage of identity cards among Roma in Albania was relatively high between 2011 and 2017 (Figure 3.44, panel a). The coverage of identity cards among Roma in Albania rose from 85 percent in 2011 to 90 percent in 2017. Nonetheless, a gap relative to neighboring non-Roma persisted (6 percentage points in 2017) because a similar increase in coverage occurred among non-Roma, rising from 90 percent in 2011 to 97 percent in 2017 (Figure 3.44, panel b).

In Montenegro, identity card coverage among Roma is relatively low, and little change occurred between 2011 and 2017. In Montenegro, though the data suggest an upward trend, the coverage of birth certificates among Roma was still relatively low in 2017, at only 96 percent. Only 83 percent of Roma ages 16 and over had an identity card in 2017, which was not so different from the share in 2011 (81 percent).[135] Among non-Roma neighbors, the coverage of identify cards was 96 percent in 2017.

Summary of Changes in Coverage and Inequality by Priority Area and with a Country Perspective

Summary of Changes by Priority Area

There has not been significant improvement in any of the priority area subindexes, and there has been a general deterioration in labor markets. Table 3.3 shows the Roma coverage and inequality subindexes in 2011 and 2017 and the overall indexes of the six countries of the Western Balkans, as well as the percentage point changes between the two survey years in all countries except Kosovo. A main conclusion that emerges from the table is that performance has generally been unexceptional. The largest improvement is in the Albania education coverage subindex (9.6 percentage points), but this change would have been reduced to one-half were it not for changes in the sampling in 2017. Most improvements tend to be at between 1 and 5 percentage points, and some priority areas, especially labor markets, show deterioration. In inequality, only two subindexes (documentation in Bosnia and Herzegovina and housing in Serbia) and one overall index (in Bosnia and Herzegovina) show statistically significant improvements; the great majority show inconclusive evidence.

Education is the priority area that increased the most in coverage; however, the increase was not large, and coverage in education remains among the lowest across priority areas, together with labor markets. Gaps in education are the widest across priority areas, and the reductions observed in inequality are also small and not statistically significant. The gaps widened significantly in Albania. The high gaps in education are mainly driven by large disparities in upper-secondary completion rates. There is thus still a long road ahead before Roma can be brought up to par with non-Roma in education. Though education may not be considered a lagging area in terms of the changes observed between the two years, low coverage and a lack of significant change in inequality signifies that more efforts and resources must still be applied to improve access. The RRS does not allow measurement of the quality of education, and there is also reason to believe Roma students are behind their non-

135 The data suggest there was a small increase in coverage of 2 percentage points; however, this change is not statistically significant at the 10 percent level.

Table 3.3. **Roma Coverage and Inequality Indexes and Subindexes, 2011 and 2017**

Priority area	*Country*	*Roma coverage index 2011*	*Roma inequality index 2011*	*Roma coverage index 2017*	*Roma inequality index 2017*	*Change in coverage*		*Change in inequality*	
Education	ALB	22.0	34.9	31.6	40.1	9.6	***	5.2	*
	BIH	25.2	33.5	27.6	31.5	2.4		-2.0	
	MKD	31.5	29.3	38.6	26.1	7.2	***	-3.2	
	MNE	21.0	40.7	24.1	41.8	3.1	**	1.1	
	SRB	30.8	34.2	36.2	30.0	5.3	***	-4.2	
	KSV	—	—	34.5	26.7	—		—	
Labor markets	ALB	36.1	14.6	29.9	22.3	-6.2	***	7.6	***
	BIH	25.8	33.1	23.3	29.6	-2.4	*	-3.4	
	MKD	34.6	22.9	40.0	21.3	5.4	***	-1.6	
	MNE	38.2	23.8	24.5	29.8	-13.7	***	6.0	***
	SRB	33.9	28.1	32.3	29.8	-1.5		1.7	
	KSV	—	—	24.9	16.1	—		—	
Health	ALB	47.2	15.9	48.6	15.8	1.4		-0.1	
	BIH	58.0	16.9	61.6	15.9	3.6	***	-1.0	
	MKD	71.2	10.0	72.6	7.8	1.5		-2.2	
	MNE	73.7	9.6	67.1	17.3	-6.7	***	7.7	***
	SRB	68.8	7.4	68.8	9.1	0.0		1.7	
	KSV	—	—	51.6	5.7	—		—	
Housing	ALB	59.4	11.2	64.1	21.3	4.8	***	10.1	***
	BIH	68.3	18.1	72.1	17.2	3.9	***	-0.9	
	MKD	76.7	11.8	80.3	10.8	3.6	***	-0.9	
	MNE	69.2	17.0	64.3	19.4	-4.8	***	2.4	*
	SRB	62.8	23.1	69.3	18.2	6.5	***	-4.9	***
	KSV	—	—	73.8	12.5	—		—	
Documentation	ALB	91.0	3.5	94.4	3.5	3.4	***	0.0	
	BIH	94.5	3.6	95.9	1.9	1.5	***	-1.6	**
	MKD	97.1	1.7	96.2	1.6	-0.9	*	-0.1	
	MNE	88.2	8.0	89.6	8.2	1.4		0.3	
	SRB	96.1	2.9	96.5	2.2	0.4		-0.7	
	KSV	—	—	93.2	3.0	—		—	
Overall	ALB	51.2	16.0	53.7	20.6	2.6	***	4.6	***
	BIH	54.3	21.0	56.1	19.2	1.8	***	-1.8	*
	MKD	62.2	15.1	65.5	13.5	3.3	***	-1.6	
	MNE	58.1	19.8	53.9	23.3	-4.2	***	3.5	***
	SRB	58.5	19.1	60.6	17.8	2.1	***	-1.3	
	KSV	—	—	55.6	12.8	—		—	

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Color key: Dark green denotes the highest coverage and the lowest gap/inequality between Roma and non-Roma neighbors among all countries for each priority area. White denotes the lowest coverage and highest gap/inequality between Roma and non-Roma neighbors among all countries for each priority area. For changes: denotes an improvement; denotes a worsening; and denotes no statistically significant change at the 10 percent level. For robustness checks, see Appendix D. — = not available. Significance level: * = 10 percent, ** = 5 percent, *** = 1 percent.

Roma peers in academic achievement, given the gaps in access to early childhood education, gaps in access to proper nutrition and sanitation, possible discriminatory practices in the classroom, and school segregation.

In housing and access to essential services, on average, coverage increased in four countries. Increases in coverage in housing were mostly driven by improvements in access to waste collection and reductions in overcrowding. Montenegro is the only country that experienced worsening coverage in housing. Coverage among Roma in Albania and Montenegro also lags behind other countries, at around 64 percent, versus a six-country average of 70.7 percent. Compared with education, gaps in housing are much smaller, but they worsened significantly in Albania, followed by Montenegro.[136]

Labor markets are lagging; three countries exhibit worsening access to economic opportunities and widening gaps. On average, access to economic opportunities improved among the Roma only in North Macedonia. Albania and Montenegro stand out because access to economic opportunities among Roma has deteriorated the most. However, the gender gaps in labor markets are closing in all countries. Yet, this is not caused by improvements among females, but by a greater deterioration in access to economic opportunities among males.

In health, access or coverage among Roma showed little improvement, and the changes are mainly small and not statistically significant.

Changes in coverage and inequality in documentation were also small; however, the coverage among Roma are already especially high.

The Country Perspective

A comparison across the five Western Balkan countries on which 2011 and 2017 survey data are available, Bosnia and Herzegovina, North Macedonia, and Serbia are faring relatively well in improving access to services and economic opportunities among the marginalized Roma population, as well as closing the gaps relative to neighboring non-Roma. However, the term relatively here is important because the improvements observed between 2011 and 2017 are not large, nor are they all statistically significant. In Albania, inequality overall has not been reduced, though coverage and access to services, except health care, have improved among the marginalized Roma population. In Montenegro, coverage, access, and equality need to improve (see Table 3.3).

Bosnia and Herzegovina and North Macedonia stand out as the only countries which, on average, did not show an increase in inequality in any of the five priority areas.[137]

The following summarizes, from a country perspective, the country performance in coverage and inequality across the five priority areas and overall.

136 The worsening of inequality in Montenegro no longer holds if the 2017 sample is restricted to Roma living in areas of higher Roma concentration. However, the worsening of coverage in housing is robust to changes in sampling.

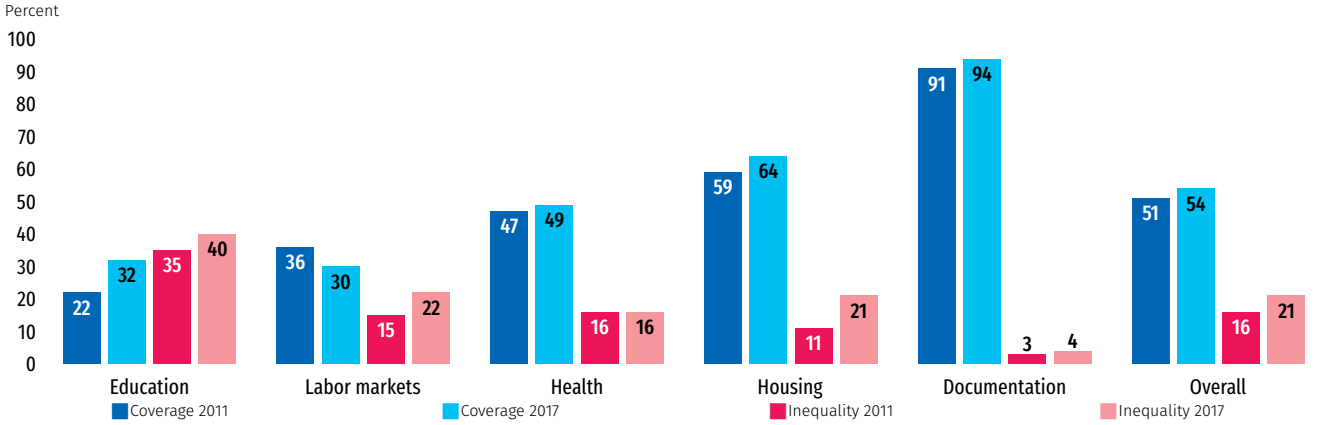
137 The Roma inequality subindexes for each priority area did not rise; however, a few of the underlying indicators did increase in inequality between the two years.

Albania: Changes in Coverage and Inequality

Overall, coverage among Roma in Albania improved, but there was considerable expansion in the gaps relative to non-Roma neighbors; Albania now has the largest overall ethnic gaps in the region (Figure 3.45). As Roma in Albania fall further behind, particularly in housing, labor markets, and education, the need for Roma-specific policies that address the particular barriers faced by this population segment becomes more salient.

Albania stands out for its improvements in coverage in education, but there are caveats. Despite substantial improvement, Albania still lags Kosovo, North Macedonia, and Serbia in average education coverage. Moreover, much of the improvement is attributable to changes in the characteristics of Roma individuals and households between the two survey years, implying that education-specific policy changes between the two survey years are not an explanatory factor. Albania is the only country that showed a statistically significant increase in inequality in education. Chapter 2 shows that the ethnic gap in compulsory education in Albania cannot be explained by differences in observable characteristics between Roma and non-Roma, suggesting that unobservable factors, such as social norms and discrimination, may be hindering progress in enrollment in compulsory education among Roma.

Figure 3.45. **Albania: Roma Coverage and Inequality Indexes and Underlying Subindexes, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: the change in coverage in health care and the change in inequality in documentation. Though greater Roma coverage is desirable, the opposite is true of the inequality index and subindexes.

Albania did not perform well in labor markets: the coverage subindex fell by 6 percentage points, making Albania one of the worst performers in the region. The main drivers of this overall deterioration are a significant decline in employment and labor force participation. Informal employment was the only indicator that improved. The decrease in labor force participation and in employment cannot be explained by changes in observable characteristics of Roma across the two survey years, implying that changes in unobservable individual and household characteristics or other factors, such as labor demand or discrimination, may have led to the observed deterioration. The improvement in inequality was led by a fall in the share of self-employment among employed Roma.

In housing and access to essential services, Albania exhibited substantial average improvement in coverage, but gaps widened significantly. The overall average masks the lack of progress in access to most essential services. The average improvement in housing was driven by large improvements in

waste never collected and in overcrowding. However, access to electricity and connections to public sewerage or waste water tanks decreased. In 2011, Albania was the only country in the region in which the majority of Roma lacked access to piped water inside the dwelling. This indicator did not improve in 2017, and Roma fell further behind their non-Roma neighbors. The lack of progress in access to most essential services is associated with the drop in employment.

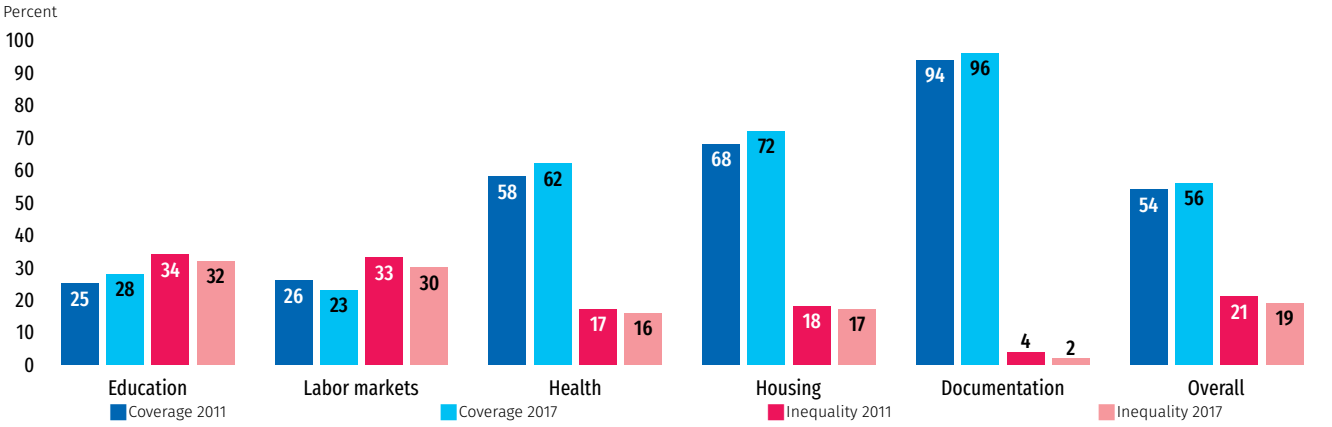
On average, Albania did not show substantial changes in coverage or inequality in health care. The self-reported unmet need for health care improved in coverage and in inequality. However, Albania still lags the five other countries in this indicator. Self-perceived health and health insurance coverage deteriorated. The decline in health insurance coverage was mainly driven by the decrease in employment.

Albania fared relatively well in documentation, given an increase in coverage in identity cards of 6 percentage points; there was no change in inequality. Nonetheless, the coverage rate is 90 percent among Roma. The indicator thus still shows room for improvement; coverage among neighboring non-Roma is at 97 percent.

Bosnia and Herzegovina: Changes in Coverage and Inequality

Overall, Bosnia and Herzegovina improved in coverage and inequality, but the overall improvement is small, at only 1.8 percentage points (Figure 3.46). Coverage, at 56.0 percent, is slightly below the simple average of the six countries, 57.6 percent, and inequality is slightly higher.

Figure 3.46. **Bosnia and Herzegovina: Roma Coverage and Inequality Indexes and Subindexes, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: the change in coverage in education and the changes in inequality in education, labor markets, health, and housing. Higher levels of the Roma coverage index and subindexes are desirable, but the opposite is true of the inequality index and subindexes.

The data suggest there has been progress in coverage and inequality in education, but the changes are not statistically significant. Across priority areas, as in the other five countries, education stands out, together with labor markets, for the low coverage and wide gaps. The compulsory education enrollment rate is the only indicator within the education subindex that showed a statistically significant improvement.[138] The increase cannot be explained by changes in the characteristics of Roma between

138 The share of students attending special schools, which is not included in the index, also improved (it decreased), albeit by only 1 percentage point.

the two survey years, implying that actions undertaken to increase enrollment among Roma may have had a positive impact. However, there is no progress in the completion rate of compulsory education or beyond. Most concerning is the lack of advancement in preprimary enrollment; hardly any Roma children ages 3–5 or any of their non-Roma neighboring counterparts are enrolled. Availability seems to be a major constraint, though, as in other countries, cost and lack of a perceived need for care are also particularly important barriers among Roma. The share of Roma students ages 7–15 attending majority Roma schools doubled, now at 12 percent, but the share is among the lowest in the region.

In labor markets, Bosnia and Herzegovina showed a decline in access to economic opportunities of around 2 percentage points, mostly driven by a decrease in labor force participation. The levels remain among the lowest in the region, together with those of Kosovo and Montenegro. Though the data show improvement in equality in labor markets, the change is not statistically significant at the 10 percent level. Most countries also worsened in access to economic opportunities, but the deterioration observed in Bosnia and Herzegovina is particularly worrisome because not only are the gaps between Roma and non-Roma among the largest in the region, the labor market outcomes among Roma also lag significantly behind those of their Roma counterparts in other countries.

Compared with other countries, Bosnia and Herzegovina exhibited the largest increase in the Roma coverage subindex in health. This was driven by improvements in the self-reported unmet need for medical care. However, the coverage in health is relatively low, behind North Macedonia, Montenegro, and Serbia. Progress in the self-reported unmet need was driven by individuals with health insurance, as well as individuals who were not working. Unlike other countries, Bosnia and Herzegovina did not suffer a deterioration in self-perceived health and also showed improvement in health insurance coverage, albeit small.

In housing, Bosnia and Herzegovina increased in coverage, but there was no change in inequality. Coverage is slightly above the simple six-country average, and inequality is slightly lower. The increase in coverage was mostly driven by improvements in overcrowding and access to electricity. There was no significant change in connections to public sewerage or waste water tanks. However, coverage fell among Roma living in areas of higher Roma concentration. This decline is partly driven by the concurrent fall in employment.

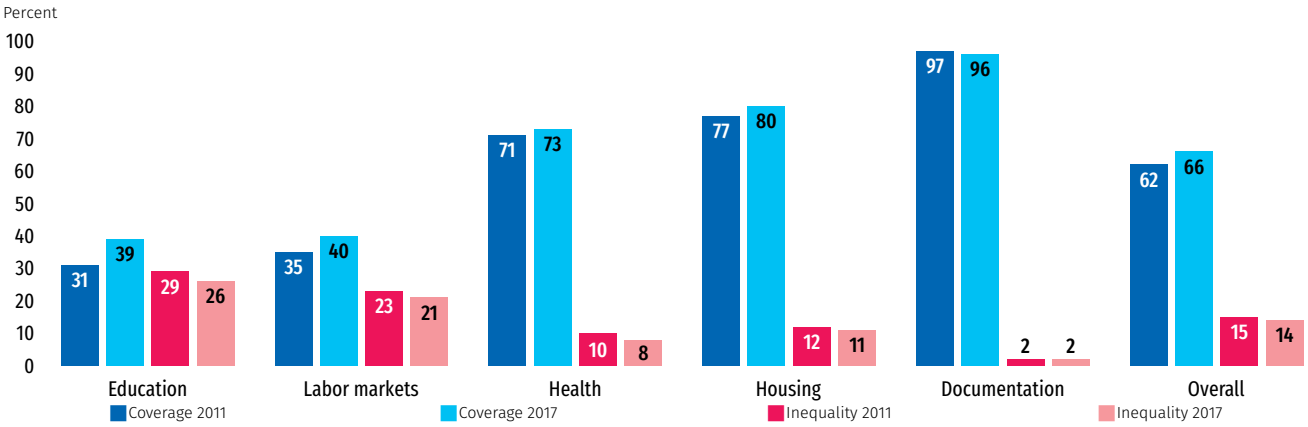
Improvements in coverage and inequality in documentation, though statistically significant, were small; coverage is already at high levels. The coverage of identity cards, at 93 percent, still has room to improve, though it is not far behind coverage among non-Roma neighbors, at 96 percent.

North Macedonia: Changes in Coverage and Inequality

North Macedonia is the best performer in the region in terms of changes in coverage and access (Figure 3.47). This is driven mostly by improvements in education and labor markets. The country is also characterized by the highest overall coverage rates in the region.

Though there was no significant change in inequality or in any of the underlying subindexes across the five priority areas, North Macedonia has the narrowest gaps in the region after only Kosovo.

Figure 3.47. **North Macedonia: Roma Coverage and Inequality Indexes and Subindexes, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: the change in coverage in health and all changes in inequality. Higher levels of the Roma coverage index and subindexes are desirable, but the opposite is true of the inequality index and subindexes.

In education, coverage rose and remains the greatest in the region, but is nonetheless low; the apparent improvement in inequality is not statistically significant. The rise in coverage among Roma was mostly driven by an increase in the upper-secondary completion rate. There was no improvement in preprimary education, and, as in other countries in the region, cost, availability, and perceived need continue to be important barriers to education among Roma. Though tertiary completion improved (mainly among females), coverage is still dismally low, and a large gap persists relative to non-Roma neighbors. The rise in compulsory enrollment is mainly attributable to changes in the characteristics of Roma between the two survey years. Data for 2017 suggest that unobservables, such as social norms and discrimination, do not play a central role in explaining the ethnic gap. The data also suggest that the increase in completion rates in compulsory and upper-secondary education may be partly the result of policy interventions, among which CCTs may have played an important role. An increase was observed in the share of students attending majority Roma schools; the indicator is now the highest in the region, at 40 percent.

North Macedonia is the only country that, on average, improved in access to economic opportunities. However, there was no statistically significant change in inequality, and, though coverage is relatively high and inequality relatively low, less than half of working-age Roma had access to economic opportunities. Informal employment was significantly reduced, mainly because of a decline in self-employment. Unlike in other countries, employment among Roma did not decrease, and the reduction in labor force participation was relatively small. The 6 percentage point decrease in labor force participation was mainly caused by a decline in the share of Roma households receiving social assistance and by changes in sampling.

In health, the small improvements observed in coverage and inequality are not statistically significant; however, relative to other countries and other priority areas, coverage in health is high and inequality low. There was a substantial improvement in self-reported unmet needs. This was mostly driven by individuals with health insurance and individuals not in employment. As occurred across the five countries on which 2011 and 2017 data are available, the share reporting unmet needs because of unaffordability fell significantly. The requirement to join a waiting list rose in importance as a factor.

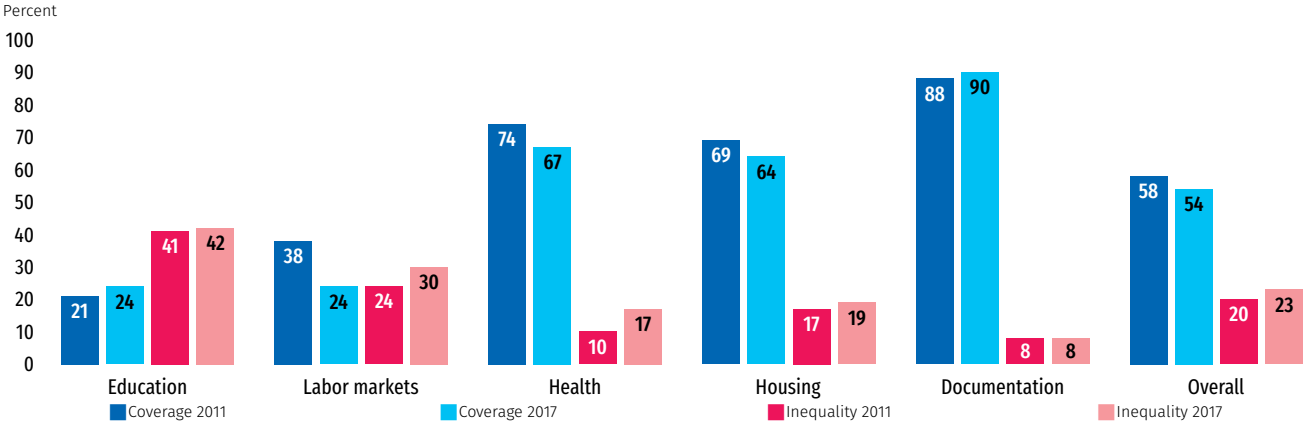
The Roma coverage index in housing also improved, mostly driven by an increase in waste collection. Coverage is relatively high, at 80.3 percent. This is the highest coverage among Roma observed across all six countries and five priority areas. Inequality is relatively low, at 10.8 percent. Gaps in housing also appear to be narrowing, but the evidence is inconclusive. As in other countries where overcrowding fell, the improvement was mostly driven by changes in the household composition of Roma, as households have become smaller.

Coverage in documentation worsened, driven by a deterioration in the coverage of identity cards (2 percentage points); however, the documentation subindexes show that coverage is high and inequality low.

Montenegro: Changes in Coverage and Inequality

Overall, Montenegro regressed in both average coverage and inequality; overall coverage is among the lowest in the region; inequality is among the highest (Figure 3.48).

Figure 3.48. **Montenegro: Roma Coverage and Inequality Indexes and Underlying Subindexes, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: the change in coverage in documentation and the changes in inequality in education and documentation. Higher levels of the Roma coverage index and subindexes are desirable, but the opposite is true of the inequality index and subindexes.

Montenegro improved in education coverage, but the coverage is the lowest in the region, and there was no progress in inequality, which is the highest in the region. Coverage increased mainly thanks to a substantial improvement in preprimary education among Roma. Montenegro is exceptional in that no other country had a statistically significant improvement in this indicator among either Roma or non-Roma. The increase was mostly driven by boys in urban areas. Enrollment in compulsory education also increased. This change is not explained by changes in the characteristics of Roma across survey years. Though more research is needed to establish causality, this suggests that interventions undertaken to raise school enrollment among Roma may be having a positive impact. Nonetheless, more needs to be done to ensure that Roma students complete compulsory education and beyond.

The least well performing area was labor markets. Access to economic opportunities deteriorated by an average of 14 percentage points, and gaps widened. In labor markets, Montenegro does not compare well with other countries in the region in coverage or in inequality. The decline in coverage was mostly driven by a large fall in labor force participation among Roma. Neither the fall in labor

force participation nor employment can be explained by changes in the characteristics of Roma across survey years. This suggests that, aside from unobservable characteristics, labor demand factors (particularly among unskilled labor) or prejudice could have played a role. The data suggest that such factors also affected neighboring non-Roma, who experienced a fall in labor force participation and employment, although not as steep.

Health care coverage and access among Roma and inequality also deteriorated considerably. Nonetheless, coverage compares relatively well with coverage in other countries, though the use of preventive health care services is especially low. The decline in health care coverage was mostly caused by the smaller share of Roma who reported good or very good health status, though other indicators, such as health insurance coverage and the self-reported unmet need for medical care, worsened. The increase in the self-reported unmet need for medical care was driven by individuals with health insurance and by individuals who were not employed. Fewer Roma cited the lack of affordability as a reason for the unmet need; however, a larger share reported that the unmet need was associated with waiting lists for care or the distance or lack of transport to local health care centers. The narrowing in health insurance coverage is concerning because the gap relative to non-Roma neighbors has widened. However, since 2017, the only eligibility condition for enrollment in the social health insurance scheme was residence in the country. The reform may not have been in place long enough for an increase in coverage to be observed among Roma.

There was no progress in housing and access to essential services. Coverage is relatively low, and inequality relatively high. Particularly worrisome is the fall in connections to public sewerage or waste water tanks, which fell by 10 percentage points. Other changes in housing were smaller, and some were mostly driven by Roma in more integrated settlements, who were not included in the 2011 survey.

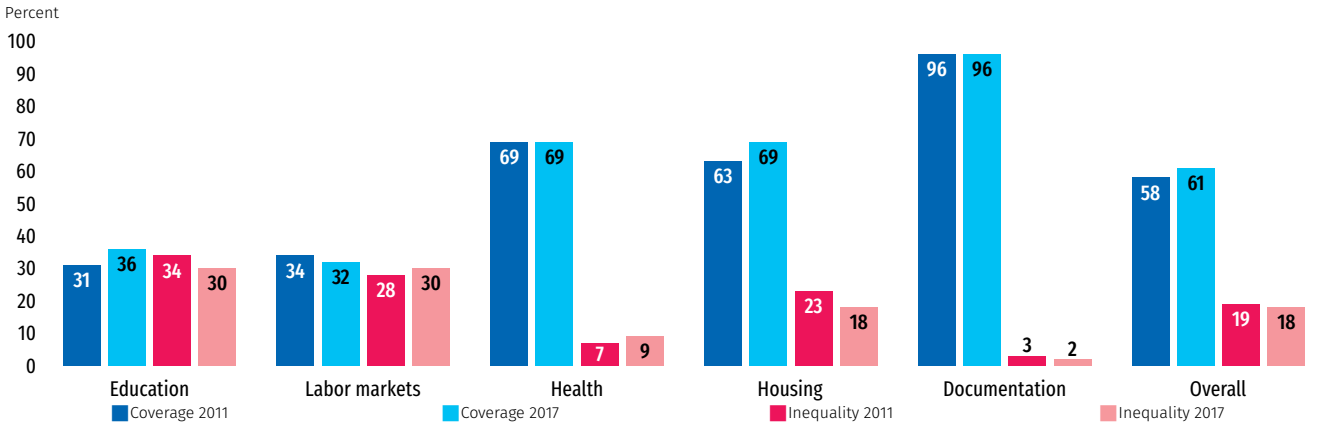
In documentation, the changes were small and not statistically significant. Coverage, at 90 percent, is the lowest in the region. Especially worrisome is the relatively low coverage of identity cards, at only 83 percent. Survey data suggest that lack of identity cards may be hindering some Roma from accessing services, such as health insurance.

Serbia: Changes in Coverage and Inequality

Serbia showed a small improvement in the overall Roma coverage index, but there was no change in inequality (Figure 3.49). The increase in coverage (2.1 percentage points) was driven by substantial improvements in the housing and education subindexes. Changes in the remaining three subindexes are not statistically significant. Only the housing subindex showed a statistically significant change in inequality; it improved by 5 percentage points.

Serbia improved in education coverage and also inequality, though the decline in inequality was not statistically significant. As across all countries in the region, the levels of coverage in education are among the lowest across the five priority areas, and inequality is high. The improvement in compulsory education completion rates was especially large and mostly derived from the 15 percentage point increase in the compulsory education completion rate. The greatest decline in inequality in education is observed in the completion rate in compulsory education. The data suggest that policy interventions may be partly behind the improvement. As in most countries, no progress was made in preprimary enrollment, where cost and lack of perceived need continue to be important barriers among Roma.

Figure 3.49. **Serbia: Roma Coverage and Inequality Indexes and Subindexes, 2011 and 2017**



Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The following changes are not statistically significant at the 10 percent level: the changes in coverage in labor markets, health, and documentation and the changes in inequality in education, labor markets, health, documentation, and overall. Higher levels of the Roma coverage index and subindexes are desirable, but the opposite is true of the inequality index and subindexes.

The data suggest some deterioration in labor markets (both coverage and inequality), driven mostly by a fall in labor force participation, though the overall worsening observed in labor markets is not statistically significant. Labor force participation decreased significantly, and this cannot be explained by changes in the characteristics of Roma across the two survey years, implying that changes in unobservable individual and household characteristics or other factors, such as labor demand or discrimination, led to the observed deterioration in these indicators. Unemployment decreased, partly because of the fall in labor force participation. The improvement in informality can be mostly explained by a decline in self-employment among Roma.

In health, on average, coverage remained stable among Roma, and the observed increase in inequality is not statistically significant. Coverage is higher than the average across the six countries, whereas inequality is lower. The self-reported unmet need for medical care showed a small statistically significant decline, and the share who report unmet needs because of a lack of affordability declined. However, there was no change in the ethnic gap, suggesting that the improvement is not necessarily related to Roma-specific interventions.

In housing, Serbia stands out as the country that increased the most in coverage and inequality. Coverage was relatively low, and inequality relatively high in 2011. In 2017, Serbia caught up to the average in the region. Coverage among Roma improved in all housing indicators. Access to piped water and connections to public sewerage or waste water tanks were the main drivers of Serbia's performance in housing. Inequality also declined significantly, mostly driven by declining gaps in connections to public sewerage or waste water tanks and in access to piped water inside the dwelling. The increase in access to piped water inside the dwelling was mostly driven by progress in urban areas, though improvements occurred in rural areas as well. Significant improvements in access to piped water also occurred among Roma in households in which the head was not working.

In documentation, like all countries, little change occurred between the two survey years, but this is because coverage was already high and inequality low.

Kosovo's Standing Relative to Other Countries in the Western Balkans

In the overall Roma coverage index, Kosovo is similar to Bosnia and Herzegovina and slightly below the simple average of the six countries (Table 3.4). In terms of inequality, Kosovo shows the smallest gaps in the region. North Macedonia is close behind.

Kosovo's Roma coverage subindex in education is somewhat higher than the average of the six countries. However, Kosovo ranks behind Serbia and North Macedonia. On most of the core indicators on education, Kosovo also tends to trail North Macedonia and Serbia. Kosovo stands out, together with North Macedonia, for inequality in education below the six-country average. Roma females in Kosovo are less likely to complete compulsory education, as is the case in Bosnia and Herzegovina and North Macedonia. They are also less likely to complete upper-secondary education, as is the case in Serbia.

Table 3.4. **Roma Coverage and Inequality Indexes and Subindexes, Kosovo, 2017**

	Roma coverage index							*Roma inequality index*						
	ALB	*BIH*	*MNE*	*MKD*	*SRB*	*KSV*	*Average*	*ALB*	*BIH*	*MNE*	*MKD*	*SRB*	*KSV*	*Average*
Education	31.6	27.6	24.1	38.6	36.2	34.5	**32.1**	40.1	31.5	41.8	26.1	30	26.7	**32.7**
Labor markets	29.9	23.3	24.5	40.0	32.3	24.9	**29.1**	22.3	29.6	29.8	21.3	29.8	16.1	**24.8**
Health	48.6	61.6	67.1	72.6	68.8	51.6	**61.7**	15.8	15.9	17.3	7.8	9.1	5.7	**11.9**
Housing	64.1	72.1	64.3	80.3	69.3	73.8	**70.7**	21.3	17.2	19.4	10.8	18.2	12.5	**16.6**
Documentation	94.4	95.9	89.6	96.2	96.5	93.2	**94.3**	3.5	1.9	8.2	1.6	2.2	3.0	**3.4**
Overall	53.7	56.1	53.9	65.5	60.6	55.6	**57.6**	20.6	19.2	23.3	13.5	17.8	12.8	**17.9**

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: Average is the simple average for the 6 countries. Color key: Dark green denotes the highest coverage and the lowest gap/inequality between Roma and non-Roma neighbors among all countries for each priority area. White denotes the lowest coverage and highest gap/inequality between Roma and non-Roma neighbors among all countries for each priority area.

In labor markets, the data show that Roma in Kosovo have relatively poor access to economic opportunities. Coverage is only slightly above the coverage in Bosnia and Herzegovina and Montenegro, and it trails the six-country average. All core indicators on Roma in labor markets in Kosovo are less desirable than the six-country average, with the exception of the NEET rate. Kosovo also shows relatively high informal employment. Despite the less than stellar relative standing in the Roma coverage index in labor markets, Kosovo does have relatively low ethnic gaps. This means that neighboring non-Roma in Kosovo also exhibit low coverage in labor markets relative to the other countries in the region. Ethnic gaps are especially low in labor force participation and employment. Roma females in Kosovo also have especially low labor force participation and employment rates in comparison with other countries in the region, but this is also the case among their neighboring non-Roma female counterparts.

Kosovo, together with Albania, has a low Roma coverage subindex in health. The main reason behind Kosovo's low standing is the low health insurance coverage among Roma. Kosovo's relative standing on the other four core indicators for health is above the average in the six countries. This means that low health insurance coverage does not appear to be hindering Roma from obtaining access to services comparable with the services available to Roma in countries with higher health insurance coverage. On average, gaps in health are also relatively small. The main drivers behind this result are narrow gaps in health insurance coverage and the use of preventive health care services. The data show that the low coverage observed among Roma is not a particularly Roma issue.

Kosovo's coverage in housing is above the average across the six countries. However, it lags far behind the best performer, North Macedonia. Kosovo has relatively high access to piped water inside the dwelling and to connections to public sewerage or waste water tanks. The share of Roma who report that waste is never collected is also lower than the six-country average. Kosovo does have somewhat greater overcrowding than average, and this is mostly because of larger households.

Kosovo ranks only slightly below average in documentation coverage. However, differences across countries are not large, and, as in other countries, coverage levels are relatively high. Inequality in documentation is similar to the six-country average; Kosovo ranks fourth in this regard, but, levels in all countries are already low, and the differences across countries are small.

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4. Policies to Promote Roma Inclusion in the Western Balkans

Data for Reporting, Monitoring, and Evaluating Progress on Roma Inclusion

Accurate data on programs implemented in the Western Balkans that are affecting Roma are scarce. Better data need to be collected to understand what works and where, as well as to understand any progress achieved in facilitating Roma inclusion.

The first source of information is the national action plans for Roma inclusion, which lay out the strategic framework of actions and priorities identified by each country in the region for the next 5 to 10 years. Most of these documents present a strategic framework for action, which includes priority areas, specific programs to be implemented, and an analysis of the government and donor funds necessary to carry out relevant projects. Some provide a detailed matrix with key performance indicators, milestones, and data sources and a clarification on the authorities responsible for monitoring and evaluation. Albania and Bosnia and Herzegovina have produced thorough national action plans. This may be attributed, in the case of Albania especially, to a dedicated budget line for policy monitoring.

Other action plans are less precise and fail systematically to lay out priority areas and programs relevant to Roma. They are more difficult to read, especially if they include Roma-specific actions under regular funding. In North Macedonia, many of the labor market programs aimed at improving the employability of Roma are carried out under the regular state budget, making it difficult to define a specific budget for each measure undertaken. In addition, even if relevant milestones are provided, they typically include only output indicators, such as the number of Roma reached, rather than outcome indicators, such as the number of Roma who have found jobs.

The second source of information is progress reports, gathered yearly by the Regional Cooperation Council for Roma Integration 2020. A template is sent out to national line ministries to be completed by the relevant authorities. The most recent progress report available was issued in 2016. It provides detailed information about programs aimed at improving Roma outcomes by priority area. Each project should record information for 2016 about the planned and actual budget, actions undertaken, and the number of Roma reached, including the share of Roma women. These reports usually provide detailed information, and Roma-specific data are supplied on the vast majority of projects. If projects that include Roma are funded through the regular state budget, information about the costs is not available. While information on funding and the number of Roma reached is available, the reports rarely supply information on outcome indicators. One exception is Serbia, where the government made an effort to examine trends in outcome indicators using successive rounds of the Multiple Indicator Cluster Surveys (which allow disaggregation between Roma settlements and the rest of Serbia) and managed to compare education and health outcomes among Roma between 2010 and 2014. Similarly, the government collected information on employment and unemployment rates among Roma and non-Roma and information on living conditions among Roma and non-Roma in 2014.

Information on priority areas, spending by project, and the number of Roma reached by each project is well documented for 2016, but improvement is possible. The progress reports gathered by the Regional Cooperation Council for Roma Integration 2020 include useful monitoring data. However, the reporting on these data would benefit from (1) a specific budget and a central coordinating unit for monitoring and evaluation, such as in Albania; (2) a standard reporting table format, such as Microsoft Excel, instead of a table filled partly with words and partly with numbers in a Microsoft Word document; (3) the systematic classification of projects under common themes, such as education, health, social protection, labor, housing, and legal and civil action, and second-level categories within each theme, such as preschool, compulsory school, higher education; (4) systematic data collection to allow trends to be identified; and (5) the use of a results framework, including inputs, activities, outputs, and outcomes, as well as SMART indicators (Specific, Measurable, Attributable, Realistic, and Timebound). In addition, these data should be complemented by additional sources of data to measure progress in outcomes. For instance, in filling out the 2016 progress report, the authorities in Serbia used external data, that is, nonadministrative data, to track progress in education outcomes, by relying on the early childhood development index, transition rates to secondary education, unemployment rates, and so on.

The Directorate-General for Neighbourhood and Enlargement Negotiations (DG NEAR) of the European Commission (EC) collects information on projects funded through the instrument for preaccession assistance (IPA). However, the information on IPA-funded projects is quite limited. Though there is some information on budget allocations per priority area and specific programs, overall budgets are laid out for the entire period of funding (IPA I, 2007–13, or IPA II, 2014–17), without any information on yearly spending, the number of Roma reached by these programs, or improvements in the outcomes among beneficiary Roma. There is also no information available on how spending and projects are allocated across municipalities. Given the census data on the geographic locational of Roma, such information would allow one to infer whether or not IPA funding could be expected to benefit Roma. Useful principles for monitoring and evaluating European Cohesion Policy by the European Social Fund can be helpful in measuring the impact of IPA-funded projects (European Commission 2018).

Current monitoring and evaluation are not adequate because of the lack of official ethnic-disaggregated data; to assess if Roma are being reached and to evaluate impact, governments in the Western Balkans need to improve the quality of official data to measure ethnic disparities reliably. The lack of ethnicity in official survey data and administrative data is pervasive (Table 4.1). When data are available, additional issues include the problems of identifying ethnicity (self-identification versus external versus mixed), sample sizes that are too small to draw reliable inferences, or missing data (the lack of reliable consumption or income data to measure monetary poverty). These shortcomings and data gaps hinder the identification of ethnic inequalities in health care, education, employment, housing, and services and are obstacles to monitoring Roma inclusion outcomes and evaluation. Good-quality official data would also help disentangle the complex effects of factors that contribute to the disparities. For instance, some European Union (EU) member states started adding an ethnic identifier to their European Union Statistics on Income and Living Conditions (EU-SILC) surveys, such as in Bulgaria and Hungary. Understanding these relationships would facilitate the design of more effective local, state, and national interventions to eliminate Roma–non-Roma disparities.

Table 4.1. **Ethnicity Data: Unavailable in Household Surveys and Scarce in Administrative Data**

Country	*Census*	*National household surveys, latest year available*	*Administrative data*		
			Education	*Health*	*Employment*
ALB	x	2015 - HBS - no ethnicity			x
BIH	x	2015 - HBS - no ethnicity			x
MNE	x	2015 - HBS - no ethnicity			
MKD	x	2015 - SILC - no ethnicity			x
SRB	x	2015 - SILC - no ethnicity			
KSV	x	2016 - HBS - no ethnicity 2017 - LFS - includes ethnicity			

Source: World Bank elaboration.
Note: HBS = household budget survey. LFS = labor force survey.

To enhance monitoring and evaluation and effectively implement antidiscrimination law, the EC has recommended that collected data, such as the EU-SILC, be disaggregated by self-identified ethnic origin. In the case of Roma, a difficulty arises because of the small, marginalized population Roma represent in most countries, making it nearly impossible to capture Roma populations in household surveys that are sufficiently large for accurate statistical inference. A potential solution is to conduct a booster sample among Roma, as Romania has done in recent years in several rounds of the household budget survey. An alternative might involve conducting a survey among Roma and complementing this survey with census data to produce small area estimates of the Roma population. To mitigate the limitation of self-reporting, which likely yields lower Roma population numbers across most municipalities in census data, questionnaires should rely on dual ethnicity reporting, that is, allowing individuals to identify with more than one ethnicity.[139] Questions on the mother tongue and the language spoken at home can also help counteract underreporting of Roma ethnicity in censuses or household surveys. Grassroots campaigns, such as those undertaken in Montenegro and Serbia to encourage ethnicity self-reporting among Roma can have an important impact. For example, the official number of Roma according to the 2011 census in Serbia rose by 40 percent relative to the 2002 census; the year-long grassroots campaign conducted by the Roma Initiatives Office of the Open Society Foundations likely contributed to the increase (Jovanovic and Haliti 2012).

There are additional challenges in the collection of ethnic-disaggregated data in household surveys, including political and legal obstacles and negative social attitudes. First, there may not be sufficient political will to collect ethnic data. So, there is a need to engage in parallel top-down and bottom-up approaches locally and from central EU institutions. Second, because of a narrow interpretation of national data protection laws, there is a widespread argument that the collection of ethnic-disaggregated data is prohibited by national legislation, which is not necessarily the case in every country in the Western Balkans (for example, Kosovo collects ethnically disaggregated data in the labor force survey). Third, the right to privacy can be affected during the collection of sensitive personal data. However, the right to privacy is respected as long as core principles of equality in data collection that are endorsed by ethnic minority communities are satisfied (Open Society Foundations 2014).[140] Fourth, there may be societal attitudes opposed to ethnic data collection. However, recent surveys in the EU have shown that these attitudes are shifting. According to a special Eurobarometer

139 This is also considered a best practice in terms of the right to choose multiple and intersecting identities (Open Society Foundations 2014).
140 The binding core principles of data collection include (a) self-identification; (b) voluntary response, that is, every individual has the right to opt out of data collection; (c) the right to choose multiple and intersecting identities; (d) anonymous data collection; (e) informed consent to the purpose of the data collection; and (f) community consultation throughout the process, including in the naming of categories and the formulation of questions on ethnic origin, as well as the involvement of community representatives in the analysis and dissemination of the data.

on discrimination, among the general population, there is a broad degree of willingness to provide personal information as part of a census on an anonymous basis to combat discrimination and relatively little resistance (European Commission 2007). However, this does not necessarily extend to the Western Balkans; similar surveys could be collected to understand these issues more clearly.

Given these challenges, a pragmatic approach toward better official data in the short term might focus on improving the collection of administrative data. This could be based on voluntary information and associated with privacy protections. The data could also be useful in monitoring and evaluation. Additional benefits include lower cost, less burden for respondents, and more frequent data relative to the collection of household survey data. However, there are some data challenges, including that administrative units may not be the same as the statistical units, the different classifications used across countries and institutions, missing data, variations in time periods, inconsistencies in data from separate sources, and inadequate data quality control. Administrative data that might cover ethnicity include data on social security, education, health, and public employment services.

In the medium and long term, several strategies should be considered to improve the reliability of data on Roma, including data on ethnicity in several data systems, oversampling, periodic targeted surveys, or linking data sources using indirect methods. One option would be to collect information on self-reported ethnicity across data systems, including administrative data and household surveys, following best practice.[141] Enhancing the sample sizes in national household surveys, especially in those countries in which the Roma population is scattered, may be expensive. Oversampling the underrepresented Roma may be more cost-effective, as in the case of, for instance, the National Health Interview Survey in the United States. Periodic targeted surveys, such as the Regional Roma Survey (RRS), can improve estimates on ethnic populations, while representing a feasible, less costly alternative, but would not produce official national estimates for monitoring outcomes. Linking data sources, including household data, the population census, and administrative data might create a richer database, but information on ethnicity would need to be available in most data sources. The indirect methods often used in small area estimation can also be applied to develop estimates on small populations.

A comprehensive vulnerability assessment is critical to the effort to identify regional sources of vulnerability and the policy options to address them. To support evidence-based policy making, the development of a geographic information system merging administrative data, census data, and poverty maps could provide a more accurate disaggregated picture of the sources of vulnerability among the Roma population. A second step would consist of working with selected Western Balkan governments to generate a geographic information system capable of automatically updating the information. The work could be done in the context of supporting the development of social registries—a database of potential program beneficiaries across multiple social assistance programs—in the Western Balkans.

Is There Spatial Segregation? Using Maps for Geographic Targeting

The challenges faced by the Roma population may be shared among neighboring populations and thus may not be Roma specific. Roma communities tend to live in the less well-off neighborhoods in

141 This is done in some countries, but not systematically across the region. For instance, in Albania a combination of administrative data collected by line ministries and municipalities, along with census data, are used to measure progress.

a location. In these neighborhoods one may find non-Roma individuals who are also deprived. For this reason, the RRS includes non-Roma living in the vicinity of Roma to be able to compare Roma to individuals who should, in theory, share similar circumstances and living conditions. This chapter attempts to provide insights about the areas where Roma reside. The use of small area poverty estimates facilitates the determination of the welfare status of Roma residing in the poorest areas of a country.

Given the small Roma population in most countries and the lack of neighborhood-specific statistics, assessments of the living conditions of Roma are not straightforward. Collecting statistical data on Roma is technically challenging. This section therefore aims at describing where Roma reside and determining if policies targeted by location might have any impact on Roma.

Place-based policies aimed at reducing poverty are often avoided by economists and policy makers because assistance is best delivered to the poor, not to poor places. This is because poorer areas are converging toward richer areas and because of the fear of bias in favor of certain locations (Austin, Glaeser, and Summers 2018). A natural corollary is that, if convergence stalls, it may be beneficial to reconsider place-based policies. Because resources are often scarce, governments may take advantage of geographical variability in designing policies to improve outcomes. For instance, a policy that aims to reduce poverty may include a targeting scheme that focuses on regions having the highest concentrations of poverty. Such an approach is not simple because the welfare information produced by surveys is usually not sufficiently detailed geographically to allow accurate targeting across wide areas.[142] However, if small area information is available, place-based policies have been shown to yield considerable savings (Elbers et al. 2007).

At the heart of the EU regional cohesion policy is the effort to spearhead the convergence of lagging regions. The policy is regional and accounts for a region's level of development in determining financial allocations. Among the many priorities of the cohesion policy is the promotion of social inclusion, the reduction of poverty, and discrimination. Development is measured at a high level of geographical disaggregation, however.

In Albania and Serbia, poverty maps have been produced in a collaboration between the World Bank and national statistics institutes.[143] The small area estimates on which the maps are based can be combined with other census and administrative data to produce nuanced insights into where Roma reside. The census offers a good approximation of the distribution of the Roma population in each area of a country, although underreporting in self-identification is an issue. The census data can be combined with more detailed information from surveys, which, however, is not as comprehensive as the census data. The surveys can yield, for example, poverty indicators and parameters that can be used to predict poverty measures based on the census data. A drawback of relying on census or survey data in determining characteristics of Roma populations is that the ethnic information is typically self-reported and is likely to underestimate the total Roma residing in a particular locality. Indeed, the mean estimate of the number of Roma residing in Albania produced by the Council of Europe is roughly 115,000. This section relies on the sampling frame used in the RRS in Albania, which yields a

142 Elbers et al. (2007) argue that, if sufficiently disaggregated information is available, errors of inclusion and exclusion can be reduced. This is achieved by assigning priority to areas in need at the finest possible geographical precision, so the transfers are simultaneously more likely to reach the intended population and less likely to reach the unintended population, that is, errors of targeting are avoided.

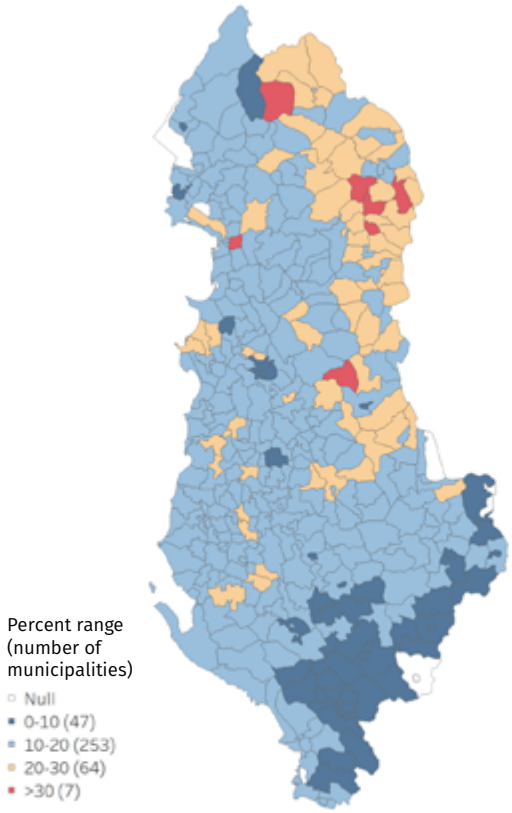
143 Poverty maps rely on small area estimates of poverty. Small area estimates are based on statistical methods to improve the precision of survey estimates in geographical areas in which survey estimates lack sufficient precision. For a more detailed description of small area estimates, see Rao and Molina (2015).

Roma population of 40,478.[144] In Serbia, Roma are considered one of the largest ethnic groups in the country. The 2011 census, which likely suffers from underreporting, found that roughly 148,0000 Roma reside in the country. (The mean estimate of the Council of Europe is approximately fourfold this total, around 600,000.)

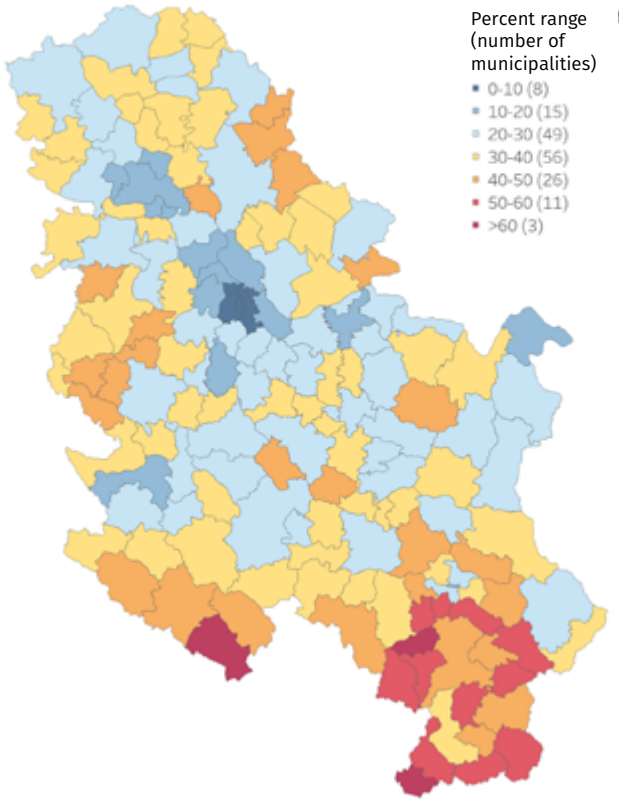
The assessment presented in this section estimates the Roma population based on updated estimates in the case of Albania and census data in the case of Serbia. The sampling frame and census data are used in this section because these data are available for municipalities in Albania and Serbia. Given the underreporting that is suspected in the data and that may be inferred from the much larger estimates produced by the Council of Europe, an implicit assumption in the following analysis is that Roma in all municipalities are, on average, equally as likely to report that they are Roma or not Roma.

If programs are aimed explicitly at reaching underserved populations, they may be targeted at communities rather than households (Rawlings, Sherburne-Benz, and Van Domelen 2004). Geographical targeting that focuses on the poorest areas can be achieved by using poverty maps. One may argue that Roma typically represent a considerably small share of a municipality's population, and any investments in the municipality are thus unlikely to reach Roma. However, investments in services that are more likely to be used by the poor can have a large impact on Roma as well; this is mostly because any improvements at the margin affect any among the poor who lack access to these services (Rawlings, Sherburne-Benz, and Van Domelen 2004).

Map 4.1. **Poverty Map, Albania**



Map 4.2. **Poverty Map, Serbia**



Source: World Bank calculations based on small area estimates of poverty and Regional Roma Survey Sampling data.

144 The 2011 census reports a much more modest 8,301 Roma.

Roma in Albania are not disproportionately concentrated in the poorest areas, limiting the scope for geographical targeting. Geographical targeting can be used as a targeting strategy for an ethnic group if the group is geographically concentrated. To assess ex ante the potential targeting performance of a geographical intervention aimed at Roma, municipalities in a country may be ranked by poverty rate (the poorest at the top), and then the degree to which Roma tend to reside or not in the poorest municipalities may be gauged. Maps 4.1 and 4.2 show poverty maps of Albania and Serbia; the color shadings depict the share of the population living in poverty in each municipality. Figures 4.3 and 4.4 show the concentration of Roma across municipalities ordered according to the poverty rate, starting with the least poor, in Albania and Serbia, respectively. The figures provide ex ante evidence for the statement that investments in poor communities will also benefit Roma to a large degree. In Albania, the results show this is not necessarily the case. Roma in Albania do not seem to be disproportionately concentrated in the poorest areas. This is evidenced by the values along the x-axis in Figure 4.3, the cumulative share of the Roma population. These values are all lower than the values of the share of the population by the poverty rate along the y-axis. Indeed, a plurality of the country's Roma—8,064, roughly 20 percent of the Roma population—reside in Tirana. Tirana's poverty rate is in the uppermost decile of the poverty distribution. For perspective, the reported Roma represent only 1.5 percent of the country's population. This means that Roma are highly concentrated in one of the country's least poor municipalities.

Figure 4.3. **Concentration of Roma, Albania**

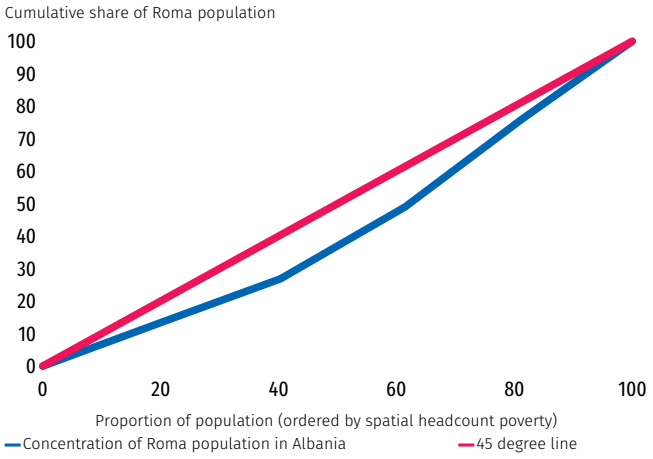
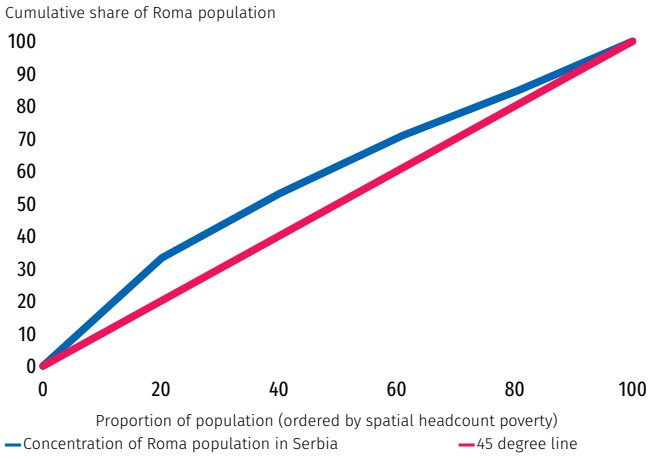


Figure 4.4. **Concentration of Roma, Serbia**



Source: World Bank calculations based on census data and small area estimates of poverty.

The results on Albania imply that programs targeting the poorest municipalities may not necessarily reach most Roma; better targeting mechanisms will be needed to reach a greater share of Roma. If targeting is focused on overall poverty and not only poverty among Roma, on whom the information on poverty status is limited, it is less likely to cover a large share of Roma. This is because, although Roma are indeed poor in Albania, they tend to be clustered within municipalities with a relatively low share of the total poor, as in Tirana.

Serbia has a considerably larger Roma population than Albania. The self-reported Roma in Serbia represent close to 145,000 individuals compared with Albania's 40,000. Roma in Serbia account for a little more than 2 percent of the country's population; most of the country's municipalities have Roma residents.

In Serbia, a larger share of Roma may be found among the population residing in the poorest municipalities, indicating that there is scope for geographical targeting. The municipality with the largest share of the total Roma population (5 percent) is also one of Serbia's most populous (Leskovac) and relatively poorer. Bujanovac, which has a rather small population and a high poverty rate, is home to 3 percent of the country's total Roma population. Thus, Roma are concentrated where the poor live. This is evidenced in Figure 4.4 which indicates that, unlike Albania, the concentration of Roma in Serbia is above the 45-degree line.

The contrast is obvious in the findings on Albania and Serbia. Roma in Albania seem to be spread out among several municipalities, and most are located in the larger cities where economic opportunities are greatest. In Serbia, all but a handful of municipalities include Roma, and, while Roma also mostly reside in the more populous locations, these locations show high poverty rates. Nonetheless, more data are needed before it will be possible to apply more accurate spatial targeting mechanisms on Roma in either country.

If geographical targeting is used as a targeting strategy to reach Roma in Serbia, many poor Roma households will be excluded. This is because many of these households are in municipalities dominated by more well off ethnic majority households, which means the municipalities are classified as nonpoor, raising the likelihood that poor Roma households will be excluded from geographically targeted assistance.

Poverty targeting may be effective in reaching Roma, who are more likely to be experiencing poverty and extreme poverty, but the lack of ethnic-disaggregated data and the low coverage of the poor in the region pose significant challenges. First, the lack of information on ethnicity in household and administrative data limit the ability to measure accurately the share of Roma reached by a poverty-targeted program. Second, social assistance overall and last resort poverty-targeted assistance in the Western Balkans show relatively low coverage of the poor, limiting their poverty impact.[145] Some countries are reforming social assistance schemes to improve the targeting of the poor, which can have a positive impact on Roma. For example, the government of Kosovo is currently reforming social assistance—the country's last resort income scheme and single most important social assistance benefit—with the support of the World Bank. Certain aspects of the reform could have a positive impact on social inclusion and poverty reduction among Roma.[146] In Albania, an improved design of the Ndihma Ekonomike, the social assistance program, with a proxy-means test to enhance targeting, was piloted in three counties and is now being implemented nationwide. The poverty-targeting accuracy of Ndihma Ekonomike has clearly improved, and it is expected to continue improving as the new eligibility rule comes into play.

To ensure inclusion of Roma in government programs, targeting strategies might combine alternative data sources and methods. Proxy-means tests are one of the few methods available to target chronically poor households effectively, along with demographics, geographical, and community-based targeting and self-selection. Improvements are possible in the design of tools for proxy-means testing, and the potential exists to enhance the performance of targeting substantially by combining proxy-means

145 The share of the poorest quintile that receives any form of social assistance ranges between 15 percent and 35 percent in the region (World Bank 2017).

146 These include (a) increasing the outreach activities of the Centers for Social Work, which manage the social assistance scheme, could increase awareness of the scheme among the Roma community; (b) removing the categorical criteria for benefit selection (no employed household member, presence of a child under age 5, and so on) could remove the hurdles that Roma households face in applying for social assistance; (c) improving the targeting mechanism for social assistance through an updated proxy-means test could raise benefit allocations among Roma households, which are most often among the poorest.

tests with other targeting methods. For example, the Orphans and Vulnerable Children Program in Kenya and the Prospera Program in Mexico combine geographical targeting and proxy-means testing. Brazil's Bolsa Família relies on geographical targeting and means testing, and geographical targeting, combined with community-based targeting and proxy-means testing, is used in Tanzania. In a well-designed process, multiple methods can bring complementary strengths to minimize errors of exclusion and inclusion. One alternative might be to identify the areas with a higher share of the Roma population using the population census and, in a second stage, use proxy-means testing to target the poor in the areas in which Roma are overrepresented. This is potentially achievable in countries on which poverty maps and good estimates of poverty in small areas are available, such as Albania and Serbia.

Another option for identifying and reaching small pockets of marginalized communities within cities or towns would be the drawing up of maps of urban marginalization, such those developed in Romania by the World Bank, in cooperation with the European Union and the government of Romania. *The Atlas of Urban Marginalized Communities in Romania* (World Bank 2014a) presents a typology of urban marginalized communities and detailed maps of urban marginalized areas across Romania based on quantitative and qualitative research. The maps use indicators compiled from the 2011 census grounded on the individual, the household, and the dwelling, such as education, employment, and access to electricity. For each of these indicators, the values associated with each urban census sector–an area with a typical population of about 200 people—are calculated. An urban threshold is then defined as the 80th percentile, and a determination is made whether the urban census sector values are above the indicator thresholds. If a census sector has a particular combination of indicators that are above the respective thresholds, it is regarded as disadvantaged or marginalized. This tool is particularly useful in assisting municipalities and nongovernmental organizations (NGOs) in identifying and selecting urban areas that require interventions to address marginalization and related challenges.

Recent Roma Inclusion Policies in the Western Balkans

Building on the momentum of the 2003 conference "Roma in an Expanding Europe: Challenges for the Future," the prime ministers of Bulgaria, Croatia, the Czech Republic, Hungary, North Macedonia, Montenegro, Romania, Serbia, the Slovak Republic, and Spain kicked off the Decade of Roma Inclusion 2005–15 in February 2005.[147] Subsequently, all governments of the Western Balkans adopted national decade action plans to work toward eliminating discrimination and closing the gaps between Roma and the rest of society. With the end of the Roma Decade in 2015, new national action plans were prepared that committed the governments to confirm their ongoing support for the full participation and involvement of Roma communities in achieving the initial objectives of the Roma Decade.

The governments of the countries of the Western Balkans had drafted five-year plans for Roma inclusion by the end of the Roma Decade, in 2015, except Serbia, which drafted a 10-year plan. The measures adopted by the governments may be divided into five main priority areas, as follows: (1) education and culture, (2) employment, (3) health, (4) housing, and (5) social protection, which is cross-cutting and often absorbed by programs in the first four priority areas. Some of the action

147 Albania, Bosnia and Herzegovina, and Kosovo joined later in 2008.

plans provided for the application of civil registration measures, as well as institutional capacity development. Table 4.2 provides an overview of the goals outlined in the action plans.

Table 4.2. **Priorities of National Action Plans for Roma Inclusion**

	ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Strategic documents						
Roma Decade National Action Plan	2010–15	2005–15	2005	2005	2009–15	2009–15
Latest revised National Action Plan	2016–20	2017–20	2014–20	2016–20	2016–25	2017–21
Civil registration						
Civil registration: children (born abroad, not registered, fee waivers)	x			x		
Legal aid/registration clinics				x		
Special measures for IDPs				x		
Education and culture						
Preprimary (fee waivers, increase in schools and teachers)	x	x	x	x	X	x
Reduce enrollment of Roma in special needs schools			x		X	
Law against segregation					X	
Measures to promote enrollment in compulsory education	x			x		
Auxiliary positions, mediators	x		x	x		
Promoting Roma culture among students	x	x				
Promotion of Roma language learning						x
Developing manuals for teaching staff		x	x		X	x
Awareness campaigns among Roma: the importance of (pre)school			x			x
Counseling for parents	x					
Increasing representation of Roma parents					x	
Second-chance programs and adult education	x		x		x	x
Additional funding for schools with large numbers of Roma students			x			
Free transportation	x	x				
Free textbooks and materials	x	x		x		
Cash transfers and scholarships (compulsory education)			x		x	
Scholarships (upper-secondary and tertiary education)	x	x	x	x	x	
Quota for upper-secondary education				x		x
University quotas for Roma, affirmative action measures			x	x	x	
Monitoring of gender and Roma-sensitive indicators					x	x

Table 4.2. **Priorities of National Action Plans for Roma Inclusion** (continued)

	ALB	BIH	MKD	MNE	SRB	KSV
Health care						
Additional funds for the provision of services for Roma	x	x	x			x
Monitoring and evaluation to check violations of Roma rights			x			
Information campaigns	x		x	x	x	x
Antenatal and maternal care	x		x		x	
Vaccination	x	x	x	x	x	x
Preventive health care through outreach	x	x	x	x		
Roma-sensitive training among medical staff	x		x		x	x
Staffing of areas with high concentrations of Roma, mobile teams	x			x	x	x
Grants for NGOs supporting Roma	x					
Roma mediators and medical staff	x	x	x	x		x
Medical university and employment quotas for Roma	x				x	
Employment						
Roma-specific measures in ALMPs	x					
Public works programs	x	x		x		
Vocational training	x	x	x	x	x	
Grants, support services: business development, self-employment	x	x	x		x	
Career counseling	x					
Financial incentives for businesses that employ Roma	x		x	x	x	
Local mediators				x		x
Increased number of Roma receiving social assistance in ALMPs			x			
Awareness of Roma on labor market measures and services			x	x		x
Roma-sensitive training for PES staff				x	x	
Measures against discrimination of Roma on labor markets					x	
Targets for Roma employment, including construction of indicators	x		x		x	x
Quota of Roma employed in public institutions			x		x	
Housing						
Rehabilitation and construction of housing	x	x	x	x		
Public infrastructure in and to Roma settlements	x				x	
Legalization and property documentation	x	x	x	x	x	x
Resettlement				x		x
Social housing programs for Roma	x	x			x	x
Mapping of Roma settlements	x	x			x	x
Improvement of sanitary conditions	x				x	x

Source: Based on the latest revised country national action plans.
Note: ALMP = active labor market program. IDP = internally displaced person. PES = public employment service.

In education and culture, all governments mention the importance of a focus on preprimary education (with limited budgets), mainstreaming compulsory education, scholarships and quotas for upper-secondary and tertiary education, and the promotion of Roma language and culture. Preprimary education measures include campaigns encouraging attendance in preschool education (Kosovo, Serbia), fee waivers (for all Roma: Albania, Montenegro; for poor Roma children: Serbia), increasing the number of schools and teachers in areas with high Roma density (Albania, North Macedonia), providing Roma-sensitive training for teachers (Serbia), and reducing segregation (Albania, Serbia). However, the share of the budgets for Roma integration allocated to preprimary education as a percentage of total education budgets is quite limited. In 2016, the governments of Albania and North Macedonia spent a little more than 14 percent of the Roma inclusion budget allocated to education on preprimary schools, while all other governments had next to zero budget allocations for preprimary education. Most countries tend to focus on upper-secondary and tertiary education, providing grants and scholarships, and affirmative action measures or quotas (Box 4.1). Second-chance education is also prioritized in Albania, Kosovo, North Macedonia, and Serbia. Some governments have implemented measures to promote Roma language and culture (Albania, Bosnia and Herzegovina, Kosovo) and outreach measures aimed at parents (counseling, awareness campaigns, representation of Roma parents in schools).

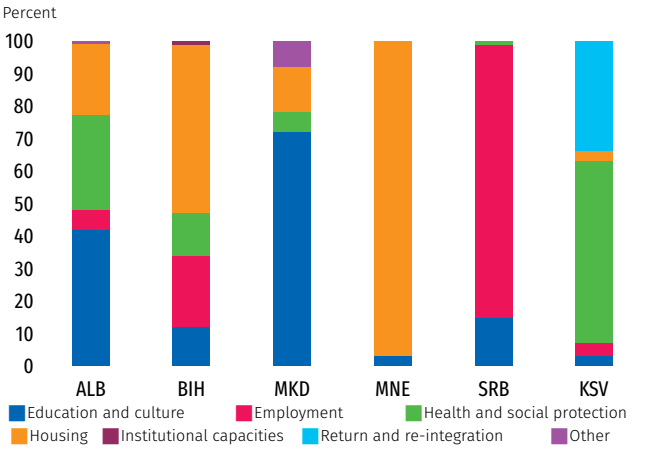
Table 4.3. **Expenditures on Roma National Action Plans, 2016**

Indicator	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Roma population, mean	115,000	58,000	197,000	20,000	600,000	37,500
GDP, € millions	11,747	16,638	10.214	4,301	37,326	6,423
Total expenditure, €, million	7.4	1.6	0.7	8.5	31.4	5.6
Expenditure, share of GDP, %	0.063	0.010	0.008	0.197	0.084	0.088

Sources: Roma population: compiled from Council of Europe estimates; see European Commission 2014. Expenditure compiled from 2016 national progress reports gathered by the Regional Cooperation Council, Roma Integration 2020. GDP: World Bank 2016a.
Note: In some cases, the budgets in 2016 for certain items were not reported. Budgets are constructed using basic analysis of the 2016 progress reports for the relevant countries and should therefore not be used to draw explicit or concrete conclusions, but they help illustrate key dynamics in the persuit of Roma integration objectives.

The spending on Roma inclusion differs substantially across countries not only in totals and per Roma, but also in the relative shares allocated toward the various priorities; however, some Roma-specific actions carried out through regular government funding are not captured in these estimates.[148] The government of Serbia, which is the largest country and has the largest total Roma population, stands out because it spent more than €30 million in 2016 (Table 4.3). Most spending in Serbia went toward labor market programs (Figure 4.5). Albania, Kosovo, and Montenegro spent only between €5 million and €7 million each. However, as a share of gross domestic product (GDP), Kosovo's spending is similar to Serbia's, and Montenegro's spending, at 0.197 percent of GDP, is considerably more. In

Figure 4.5. **Share of Budget Spent on Roma Inclusion by Area, 2016**



Source: National 2016 progress reports gathered in 2016 by the Regional Cooperation Council, Roma Integration 2020.
Note: In some cases, budgets in 2016 for certain items were not reported, especially if interventions were streamlined in the regular government budget. Budgets are constructed using basic analysis of the 2016 progress reports for the relevant countries and therefore should not be used to draw explicit or concrete conclusions, but they help illustrate key dynamics in the pursuit of Roma integration objectives.

148 Given that data are only available for 2016, the results of the analysis may not be representative of each government's spending through the national action plan for Roma inclusion. Moreover, Roma-specific actions carried out through regular government funding may not appear here.

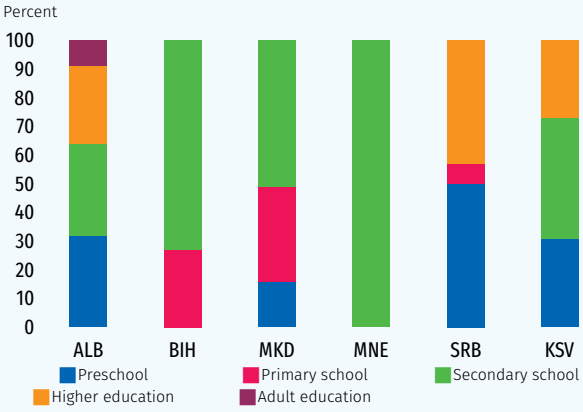
Albania, expenditures went mostly to education; in Montenegro, almost all funding went to housing; and, in Kosovo, most went to health care and social protection, though a large amount was also spent on returnees and reintegration. Bosnia and Herzegovina and North Macedonia spent less than €1 million total, amounting to only 0.008 percent of GDP in North Macedonia and 0.010 percent in Bosnia and Herzegovina. In Bosnia and Herzegovina, most funding went to housing, whereas, in North Macedonia, most went to "other." However, these amounts do not reflect all expenditure that may have had an impact on the well-being of Roma. They are used only to highlight key dynamics in the pursuit of Roma integration objectives across the countries. In some cases, budget allocations in 2016 for certain items was not reported, possibly because spending on Roma initiatives cannot always be

Box 4.1. **The Roma Education Fund**

The Roma Education Fund is one of the most active international donors in the funding for schooling. Created within the framework of the Decade of Roma Inclusion, in 2005, the Roma Education Fund supports policies and programs that ensure quality education for Roma, including the desegregation of education systems. In the Western Balkans, the fund mainly finances secondary-education projects, but also many early childhood development projects. In higher education, the fund covers grants, such as RomaVersitas, that cover university costs, a living stipend, and some mentoring. In secondary education, the fund also supplies scholarships, sometimes coupled with mentoring, as in North Macedonia. In primary education, the fund provides additional financing to increase enrollments, such as in Bosnia and Herzegovina, to include Roma children in the mainstream educational system, such as in North Macedonia, or to promote the inclusion of Roma culture in the curriculum, such as in Serbia.

Most funded projects are thoroughly monitored throughout implementation, but there are no rigorous project impact evaluations, mostly because of the difficulty of establishing counterfactual groups and tracking beneficiaries after project completion.

Figure B4.1.1. **Education Funding, by Type, Roma Education Fund, Active Projects, Western Balkans, May 2017**



The fund's active projects as of May 2017 covered all levels of education, though to varying degrees across countries (Figure B4.1.1). In Bosnia and Herzegovina and North Macedonia, funding is especially high for secondary school. Higher education is funded in Albania, Kosovo, Serbia only, whereas only secondary education is funded in Montenegro. Bosnia and Herzegovina and Montenegro do not include funding for preschool. In Serbia, the Roma Education Fund spends a considerable share of total financing on preschools.

Source: "Roma Education Fund: REF Active Projects, May 2017" (spreadsheet), Roma Education Fund, Budapest. http://www.romaeducationfund.org/sites/default/files/documents/ref_active_projects_june_2017_final._21.07.17.pdf.

disaggregated from spending on the general population. This is the case, for example, of employment spending in North Macedonia.

According to the 2016 progress reports, the shares of the 2016 budgets for the Roma national action plans allocated to education and culture vary greatly. In the upper range, the governments of Albania and North Macedonia spent, respectively, 42 percent and 68 percent of the total 2016 budgets for Roma inclusion on education and culture (Figure 4.5), though, in some cases, the budgets spent for certain items were not reported. In North Macedonia, the Ministry of Education is also implementing affirmative measures to support employment. From 2009/10 onward, the entry requirements for Roma students were lowered at selected public high schools (Asenov et al. 2018).

The health care measures prioritized in the national action plans are similar across countries. They are aimed at improving the coverage of Roma households through additional funding for service provision to Roma, the staffing of areas with high concentrations of Roma, mobile units, Roma-sensitive training among medical staff, Roma mediators; information campaigns; vaccinations; and maternal and reproductive health. In 2016, across countries, less than 15 percent of the budget of the national action plans was spent on health care, except in Albania, where the government allocated over a quarter of the state budget to health measures, and in Kosovo, where the government allocated one-half the budget. In Bosnia and Herzegovina, there has been some progress on the inclusion of Roma households in the health care system. Thus, 4,000 insured individuals have been introduced into the health care system. Awareness and informational campaigns were launched as well (Asenov et al. 2018).

Labor market and employment measures include few interventions directly targeting Roma, who tend to be mainstreamed among other highly vulnerable job-seekers. Most governments do not recognize Roma as a specifically vulnerable group that needs to be supported with special measures. They concentrate instead on providing additional funding for active labor market programs (ALMPs) with the aim of sweeping up more Roma job-seekers through technical and vocational education and training, self-employment, social entrepreneurship, and public works programs. However, some governments do supply funding for activities that promote employment directly among Roma. Among these are outreach programs to Roma communities to increase their registration with local public employment services (PESs). This involves, for instance, Roma mediators and information campaigns in Bosnia and Herzegovina, North Macedonia, and Montenegro, and a dedicated career counseling program in Albania. Measures are likewise undertaken by the PESs to reduce discrimination. In Montenegro and Serbia, this includes Roma-sensitive training among PES staff. In addition, several governments offer financial incentives for hiring Roma. Programs include subsidized employment, affordable credit lines for businesses employing Roma (Albania, North Macedonia, Montenegro, and Serbia), and tax breaks for Roma firms (Albania). Positive direct measures are also being implemented, such as quotas in the public administration in Albania, North Macedonia, and Serbia, and quotas in ALMPs in Kosovo. The government of Serbia spends considerable sums on employment as outlined in the 2016 national progress report. Most of the budget in employment and labor markets is spent on affirmative action to enhance employment and economic empowerment among Roma businesses. Financial measures aimed at employment promotion include the employment subsidy program, the self-employment program, subsidy programs under the persons with disabilities vocational rehabilitation and employment system, and the public works program.

Housing programs focus on three areas: legal registration and property documentation, the rehabilitation and reconstruction of substandard housing, and social housing programs. Some governments plan to invest in public infrastructure in Roma settlements (Albania and Serbia) or the resettlement of Roma families (Kosovo and Montenegro). In Albania, €215,000 was allocated to improving the living conditions of Roma in 2014, but many Roma do not meet the eligibility requirements for housing programs because they cannot prove their low-income status. Discrimination, lack of land titles and relevant documentation, lack of knowledge of the legal registration and certification process are also barriers to Roma participation in these programs. In Bosnia and Herzegovina between 2009 and 2016, 789 buildings were built or reconstructed for Roma housing. In Montenegro, the government adopted the Law on Legalization of Informal Structures, in 2012, which outlines the conditions and procedures for the legal certification of inadequate structures and the areas in which this is not possible (Asenov et al. 2018).

In documentation, Albania and Montenegro have adopted specific measures to enhance civil registration among Roma. Albania plans to improve civil registration of children who are not yet registered or who were born abroad, including fee waivers for some procedures, as well as the expansion of legal aid through legal aid clinics for people living below the poverty line. Montenegro focuses on legal aid for internally displaced Roma. However, there are still unregistered internally displaced persons (IDPs) whose status is uncertain. IDP status was supposed to no longer be recognized in January 2015. No provisions have been made for the IDPs who have not yet applied for foreigner status; yet, there are still almost 1,500 Roma and non-Roma in this situation, most of whom have been internally displaced from Kosovo. Only a portion of the IDPs willing to go back to Kosovo have managed to do so (World Bank 2016b).

Policy Directions

One problem that arises in attempting to evaluate and monitor the situation of Roma in the Western Balkans is the lack of systematic data collection on this group. Much ink has flowed on Roma inclusion since the Roma Decade, but relatively little has been used on rigorous analysis based on hard data. This is partly because of the lack of ethnically disaggregated data, but also because few policy interventions are rigorously evaluated.

Mostly because of the lack of the systematic evaluation of policy interventions and because of the difficulty of collecting information on Roma ethnicity, there is little information on either the participation of Roma in programs or the impact of policies on Roma. Some programs that include Roma beneficiaries have been evaluated, but they do not report ethnically disaggregated data. Other programs report ongoing participation among Roma, but they do not provide rigorous evaluations of program impact in terms of desired outcomes. Many interventions that have proven successful in other countries in targeting vulnerable groups should be designed, piloted, and evaluated and scaled up if they are shown to be effective.

This section summarizes the diagnostic of constraints in Chapters 2 and 3 and develops policy recommendations in the five priority areas and on the two cross-cutting themes, gender and discrimination. The goal is to identify policies and interventions that may generate better outcomes among disadvantaged Roma and other vulnerable groups based on the diagnostic of the constraints

and the lessons learned through interventions addressing the bottlenecks among Roma or other vulnerable groups. The evidence focuses mostly on interventions in education and on labor market policies because the largest gaps between Roma and neighboring non-Roma are in these two areas. Moreover, in these two areas, the impacts of programs on beneficiaries tend to be documented and evaluated more rigorously and more systematically. However, breaking the cycle of Roma exclusion requires a comprehensive, integrated approach, and the policy toolkit must be expanded to tackle nontraditional barriers to jobs.

Policy Measures in Education

Box 4.2 supplies a summary of the constraints affecting Roma in education.

Box 4.2. **Summary of the Diagnostic and of Constraints among Roma in Education**

- Roma children receive less early childhood stimulation, which tends to hold them back in school. Language is also a barrier to better education outcomes among Roma.
- Parental background, especially the educational attainment of the mothers, has an effect on the schooling of children.
- Access to preprimary education among Roma is limited, and there was little improvement between 2011 and 2017 except in Montenegro. When the ethnic gaps appear small, as in Bosnia and Herzegovina and Kosovo, it is because access among non-Roma is also dismally low. Although fee waivers are available in many countries, Roma cite costs as a main barrier to preprimary school, partly because of the additional costs associated with school attendance, such as the cost of transport, clothing, books, and so on. The lack of a perceived need and a lack of awareness of the availability of preschools are also important barriers.
- Among both males and females, economic cost is a significant factor leading to school dropouts and lower educational attainment.
- Although there are generally no significant gender gaps in enrollments in preprimary or compulsory education, Roma females achieve lower educational attainment. Social and community norms that encourage child marriage play an important role.
- The proportion of students ages 7–15 attending majority Roma schools rose in almost all countries; shares now range from 10 percent in Serbia to 40 percent in North Macedonia. Further segregation of Roma within schools, that is, the placement of Roma children in majority Roma classrooms, is not observed in the survey data.
- The ethnic gaps in education across all countries are persistent and wide. Social norms and discrimination, in addition to rational choice because of the low returns to education in the

(continued)

(Box 4.2 continued)

labor market among Roma, are also significant constraints on school enrollment among Roma.

- The proportion of Roma students attending special schools is declining; survey data show that few Roma attend such schools.
- Education quality among disadvantaged students is a problem in the region, and Roma are likely to be affected.

Eight policy measures can help narrow the ethnic gap in education in the Western Balkans. These are (1) promote early inclusion of Roma children through affordable high-quality preprimary education, (2) provide additional educational support for Roma children and introduce collaborative teaching techniques to foster diverse classrooms, (3) provide financial incentives to promote enrollment, (4) supply mentoring support and role models for students in transition to higher education, (5) change mindsets and socioemotional skills to improve academic performance, (6) promote reliance on Roma school mediators, (7) ensure that schools attended by Roma and other vulnerable children receive adequate funding, and (8) address segregation and promote nondiscriminatory practices.

EDUCATION POLICY MEASURE 1:
PROMOTE EARLY INCLUSION OF ROMA CHILDREN THROUGH AFFORDABLE HIGH-QUALITY PREPRIMARY EDUCATION

A combination of measures could improve preprimary school attendance among Roma children. This would include raising the number of preschools, especially in more disadvantaged areas; institute preschool fee waivers; establish conditional cash transfer (CCTs) for preschool; launch information campaigns on the benefits of preschool; recruit Roma teachers; and reduce bias and stereotypes among teachers. Improving parenting skills and early childhood stimulation is also fundamental to enhancing child development outcomes and insuring that children benefit from school enrollment.

Evidence from a randomized control trial in Bulgaria suggests that free access to kindergarten and informational campaigns may help increase the enrollment of Roma children in preschools. Huillery, de Laat, and Gertler (2017) conducted a large-scale multiarm randomized control trial in 2014–15 across 236 poor settlements in Bulgaria with the aim of improving full-day kindergarten participation among poor children, especially Roma and Turkish children. The program combined free access to kindergarten with information and mediation sessions to raise parental perceptions of the benefits of education and aspirations for their children and emphasized the parental role in child development. The experiment found that offering free access to kindergarten is the most cost-efficient strategy to encourage participation of disadvantaged children in kindergarten and that an information campaign has some positive impacts on parental perceptions of the benefit of kindergarten and their educational aspirations for their children. However, there is mixed evidence of the effect on short-term child development, suggesting that minority children may need additional support to transition successfully to and benefit from kindergarten.

Evidence on Romania shows that additional provision of early childhood education and care services has a large impact on enrollment, attendance, and learning outcomes among Roma children and on parental educational aspirations for children. Ready, Set, Go! was implemented by Roma Education Fund–Romania in 2016–17 with World Bank technical assistance (World Bank 2018). The related programs provided early childhood education and care services, including five new kindergartens and five renovated buildings, to 280 Roma children in 11 poor localities in Romania; 580 caregivers received training in parental skills; 10 toy libraries were set up; and more than 100 community events were organized that attracted over 6,000 participants. Monthly socioeducational vouchers were supplied to 280 families, conditional on participation in Ready, Set, Go! programs. The vouchers covered daily meals for children, hygiene products, school supplies, and so on. This was made possible through the involvement of 14 educators, 14 preschool mediators, 14 Your Story facilitators, and 12 community facilitators who helped deliver project activities. The programs had a substantial impact on kindergarten enrollment and attendance. Parental aspirations were also affected; a greater share of parents hoped their children would complete at least upper-secondary education. Beneficiary children showed greater improvements in scores across most areas of the International Development and Early Learning Assessment than their peers in two Roma and non-Roma control groups.

EDUCATION POLICY MEASURE 2:
PROVIDE ADDITIONAL EDUCATIONAL SUPPORT TO ROMA CHILDREN AND INTRODUCE COLLABORATIVE TEACHING TECHNIQUES FOR DIVERSE CLASSROOMS

Among young Roma children who miss the opportunity to attend preprimary schools, accelerated learning programs can be introduced in primary schools to support the integration of Roma children and prepare them for mainstream education. Accelerated learning programs may also help children who face disadvantages in the classroom because of language barriers or missed education. Accelerated learning programs among Syrian children in Lebanon have educational and psychosocial aims. They are designed to help children catch up if they have missed education, build skills to study independently, and develop coping mechanisms so they may deal with bullying they might encounter because they are behind or are new to the school. The programs have focused on developing the language skills of children from Syria so that they can participate in schools in Lebanon, where the curriculum is often taught in English and French. The holistic approach, which also involves the participation of parents, has been praised by the children taking part, by parents, and by the implementing staff (Mahmound and Roberts 2018).

In Hungary, the Komplex Instrukciós Program, based on a pedagogical approach developed at Stanford University in the 1970s that has been adopted worldwide, aims to create a more equitable classroom atmosphere in which status differences among pupils are not recognized and do not hinder learning. The methodology is especially conducive to high-quality education in diverse classrooms in which learning abilities and social backgrounds vary. It encourages children to become active partners in their own learning.[149] The program builds on three methodological pillars: multiple ability assignments, group work, and status treatment. Given that Roma children tend to live in lower socioeconomic status households and may face learning challenges because of language barriers and family background, such a methodology may be especially effective in helping Roma children catch up to their non-Roma peers.

149 See "KIP, Komplex Instrukciós Program" (Program for Complex Instruction), http://komplexinstrukcio.hu/index.php?option=com_content&view=article&id=152&Itemid=182.

EDUCATION POLICY MEASURE 3:
PROVIDE FINANCIAL INCENTIVES TO PROMOTE ENROLLMENT

Recent incentive programs demonstrate that well-designed student rewards can improve achievement at relatively low cost. Evidence shows that financial incentives have a positive impact on secondary-school enrollment. Roma have benefited from a CCT program for secondary education in North Macedonia, though take-up could be improved. The government launched the program in 2010. The program was made available to beneficiaries of the social assistance transfer, 30 percent of whom are Roma. While the results are not broken down by ethnicity, the program has exerted a strong impact on school enrollment (though not on school attendance) especially if the transfer is delivered to the mother rather than the father. However, in line with the main barriers to Roma integration, take-up of the CCT was significantly lower among Roma households than among other social assistance beneficiaries, suggesting that eligible Roma households were less aware of the program (Armand and Carneiro 2018).

Financial incentives are particularly important in noncompulsory education, such as upper-secondary education. Governments in the Western Balkans should focus on the transition from compulsory to upper-secondary education to retain more Roma children in the educational system. The Roma Education Fund, for instance, spends most of its budget on secondary school scholarships to reduce the financial burden of attending school. The Secondary School Scholarship and Mentoring Program, which covers nine countries in Central and Eastern Europe, has enrolled 3,672 students, 1,663 of whom received mentoring, and 1,429 of whom received tutoring support.[150] The program has high retention rates: 95 percent of the students have completed secondary school, and a large share continue on to university. In North Macedonia, the program model was adopted in the national education system in August 2016. It became an integral part of IPA II, and project coordinators were recognized as civil servants by the Ministry of Education and Skills. In all countries but Kosovo, scholarships are provided for Roma upper-secondary students in their national action plans, and Montenegro established quotas for Roma in upper-secondary schools. However, Roma parents are seldom aware of these scholarship opportunities. Measures to increase awareness in municipalities and villages should complement the scholarship and affirmative action programs.[151]

EDUCATION POLICY MEASURE 4:
PROVIDE MENTORING SUPPORT AND ROLE MODELS FOR STUDENTS IN TRANSITION TO HIGHER EDUCATION

Many Roma students arrive in tertiary education from lower-quality schools and are not always as academically prepared as their fellow non-Roma students; they also lack role models. Providing additional support, mentoring, and role models can help Roma students make the transition to higher education. A good example is the RomaVersitas Program, an independent student organization that has been actively contributing to the development of the Roma academic community since 1990. Roma secondary-school graduates are encouraged to apply to university and receive scholarships and mentoring throughout their tertiary education, promoting a small yet successful generation of highly educated Roma. In their National Action Plans, Montenegro, North Macedonia, and Serbia have established quotas for Roma in tertiary education. However, for Roma to be successful in higher education, they are likely to need other kinds of support; quotas, scholarships, and grants have not proven adequate for students from disadvantaged backgrounds.

150 Albania, Bulgaria, Hungary, Kosovo, North Macedonia, Moldova, Montenegro, Romania, and Serbia.
151 As evidenced in the World Bank qualitative study in Serbia.

EDUCATION POLICY MEASURE 5:
CHANGE MINDSETS AND SOCIOEMOTIONAL SKILLS TO IMPROVE ACADEMIC PERFORMANCE

Socioemotional skills may be important in improving academic achievement among Roma children. Based on the results of a recent trial intervention among middle-school students implemented by the World Bank, in partnership with the Ministry of Education, in North Macedonia, the government made the promotion of socioemotional skills a mandatory part of the curriculum in fourth through ninth grade beginning in September 2018. The program, entitled "Yes, You Can," was piloted among sixth and seventh graders in public schools in 2016–17. The curriculum encourages students to identify their learning weaknesses, persevere in the face of difficulty, seek critical feedback, and approach work with full concentration. Crucially, the intervention also aims to change negative beliefs and stereotypes that hold students back from investing full effort in school. An evaluation shows that the curriculum in successful in increasing the self-reported socioemotional skills of all students, including grit, which is associated with hard work and perseverance. The curriculum raised academic achievement among disadvantaged minority students, including Roma. The impacts were greater among Roma girls than Roma boys. The students not only augmented their socioemotional skills at a greater pace than Albanian or Macedonian students, they also enhanced their own performance. The differences in achievement were the equivalent of the results of an additional three weeks of school (which is the duration of the remedial education program among low-performing students in North Macedonia). The results were driven by the teacher-delivered treatment arm whereby the teachers were trained not only to deliver curriculum content, but also to recognize effort and avoid stereotyping students. The results among Roma students were similar to the results of programs that provide information about the benefits of schooling to students or parents (Eskreis-Winkler, Fishbach, and Duckworth 2018).

Evidence on Peru and Indonesia show that changing beliefs can have an impact on academic performance. The Ministry of Education, the University of Oxford, the Group for Analysis for Development, and the World Bank reframed the beliefs of middle-school students by showing them that intelligence is malleable. The growth mindset intervention focused on developing noncognitive dimensions, such as motivation and perseverance, and led to an increase by 0.2 standard deviations in mathematics test scores, equivalent to up to four months of extra schooling, at a cost of less than US$0.20 per student. The intervention reached 50,000 students ages 11–14 in an initial phase and an additional 250,000 subsequently. In Indonesia, education authorities are constantly facing the challenge of raising the interest and motivation of students. The beliefs and perceptions of students in Indonesia will be challenged to show that their intelligence and learning abilities can be developed and lead to greater success. Approximately 200,000 students were sampled across 2,404 schools that were divided into four categories according to the academic performance of the students as established by official standardized tests: low-performance schools with homogenous scores among students; low-performance schools with heterogenous scores among students; high-performance schools with homogenous scores among students; and high-performance schools with heterogenous scores among students. The results are still being analyzed, but early data suggest that this intervention is most effective among vulnerable students in high-performing schools. In schools with higher but highly dissimilar performance among students in the previous year (the third category of schools), one observes an increase of 0.14 to 0.16 standard deviations in the aggregate test scores, in the science scores, and in the English language scores in the year the program was implemented, an effect equivalent to approximately two to three months of catch-up in aggregate test scores, science scores, and English language scores.

EDUCATION POLICY MEASURE 6:
PROMOTE THE USE OF ROMA SCHOOL MEDIATORS AT ALL LEVELS OF EDUCATION

Although school mediator programs have shortcomings and implementation challenges, recent evidence in other countries indicates that school mediators may have a positive impact on several school outcomes. Roma school mediators were introduced by the NGO Romani CRISS and were institutionalized for the first time in Romania. Between 2003 and 2013, a total of 1,001 school mediators were trained in Romania through several programs. As an extension of the mediator activity, the Council of Europe's ROMACT Program, launched in November 2013, uses European funds to target many urban municipalities. Despite common implementation challenges, including the disengagement of teachers with the Roma community, positive outcomes may encompass a considerable decrease in the number of cases of school dropout and nonenrollment, achieving better school attainment and academic performance among Roma students, reducing absenteeism among students, combating class segregation among Roma students and promoting the general desegregation of schools, and enhancing communication between the school and the Roma community. Teacher attitudes toward Roma have also improved, which has promoted the overall development of the Roma community beyond the narrower education mandate (Gatti et al. 2016). Such mediators should be used at all education levels, including preprimary.

EDUCATION POLICY MEASURE 7:
ENSURE THAT SCHOOLS ATTENDED BY ROMA AND OTHER VULNERABLE CHILDREN RECEIVE ADEQUATE FUNDING

To counteract the lower educational outcomes among disadvantaged children, including Roma, schools in disadvantaged areas and areas of high Roma concentration should receive adequate funding to ensure proper infrastructure, supplies, and sufficient and highly qualified staff.

EDUCATION POLICY MEASURE 8:
ADDRESS SEGREGATION AND PROMOTE NONDISCRIMINATORY PRACTICES

Efforts to reduce the share of Roma children attending majority Roma and special schools should be continued across all countries in the Western Balkans. Some of the strategies to promote nondiscriminatory education may include a wide variety of practices, including activities to integrate children of diverse backgrounds in a classroom, but also activities aimed at preventing stigmatization by challenging the stereotypes that children are adopting. Efforts to promote desegregation may cover affirmative action programs, banning the abusive placement of children in special schools, introducing regular monitoring of schools, and the publication of annual reports, including information on desegregation to make schools more responsive to laws and policies and documenting more systematically the cases of school and class segregation. Activities to reduce prejudice include the introduction of cultural diversity into the school curriculum and measures to maintain the minority language in the education system.

Policy Measures in Labor Markets

Box 4.3 supplies a summary of the constraints affecting Roma in labor markets.

Four main policy measures may help improve employment outcomes among working-age Roma. The following policy measures should be put in place: (1) improve the skills of Roma job-seekers, (2) adapt

ALMPs and PES to service Roma more efficiently, (3) address discrimination and stereotyping against Roma on the job market, and (4) apply innovative schemes to tackle constraints on labor demand and foster entrepreneurship.

Box 4.3. **Summary of the Diagnostic and of Constraints among Roma in Labor Markets**

- Roma are especially lagging in labor markets. Deterioration has been observed in all countries, except North Macedonia. Ethnic gaps are persistently wide in employment, unemployment, informal jobs, and not in employment, education, or training (NEET) rates among youth. The ethnic gap in labor force participation is also wide and growing in Bosnia and Herzegovina, Montenegro, and Serbia. Though gender gaps appear to be closing, this is mostly because labor market indicators on Roma females were already low; the widest such gaps were observed in labor force participation.

- The main barriers to employment among Roma are the prevalence of low skill levels and low work experience and labor market exclusion (limited access to information, networks, and ALMPs, in addition to discrimination by employers).

- Raising female labor force participation is a major priority. The priority was also established during consultations with stakeholders. Low levels of female labor force participation are closely tied to the availability and affordability of childcare and eldercare, as well as social norms, including child marriage among Roma females. Female labor force participation is also linked to women's agency and self-empowerment, which has been found to be lower among Roma.

- Western Balkan countries are characterized by low labor demand. While this affects the entire working-age population, Roma are disproportionately affected given the additional barriers they face in the labor market. Increasing the availability of jobs therefore becomes imperative.

- Although the incidence of informality among Roma is high, creating more jobs in economies with low employment and high unemployment, rather than formalizing current jobs, should be a priority, especially among vulnerable groups.

- In addition to tackling supply-side barriers to employability, tackling labor demand constraints is also important. If only barriers from the side of workers are lifted through higher educational attainment, training, and so on, but demand-side constraints are not tackled, labor market outcomes may not improve as expected.

LABOR MARKET POLICY MEASURE 1:
IMPROVE THE SKILLS OF ROMA JOB-SEEKERS

Roma job-seekers often have low skill levels and little work experience. A combination of measures should be adopted to address this issue starting while Roma are still in school or about to transition from school to work. Career counseling and professional orientation at school are key to equipping young Roma with the adequate skills needed on the labor market.

- Vocational educational opportunities should be synced with growth sectors so that Roma boys and girls can transition into these sectors.

- Provide remedial and second-chance education or work placement and apprenticeship schemes to early dropouts from school. The intervention should occur before the individuals become long-term unemployed, typically after six months of joblessness.

- Second-chance education or work placement and apprenticeship schemes should also be a priority for adult Roma who are unequipped for the labor market. For instance, the Roma Police Fellowship Program in Hungary fills the labor shortage in the police force by providing scholarships to Roma youth who want to join the police. The county of Borsod, where the program was launched in 1996 is among the most successful; Roma represent 9 percent–10 percent of the police force, which is about the share of Roma in the county (ERGO 2017). In all Western Balkan countries but Kosovo, measures have been undertaken through national action plans to increase Roma participation in training. In Albania, Kosovo, North Macedonia, and Serbia, second-chance education programs have been adopted for Roma adults.

Evidence on the Dominican Republic shows that providing technical, vocational, and life skills training to the poor and vulnerable can have an impact on labor market outcomes among these groups. The Youth Development Project developed in the Dominican Republic by the World Bank and the Inter-American Development Bank provided technical, vocational, and life skills training and on-the-job internships for poor, at-risk youth. The program focused on improving the employability of poor, at-risk youth by building their work experience and life skills. It also supported the expansion of second-chance education programs aimed at supplying youth and adults the opportunity to complete formal education. The program had positive impacts, including higher earnings and higher-quality jobs among participants. The country's first temporary employment program targeting poor unemployed adults was also implemented.

LABOR MARKET POLICY MEASURE 2:
ADAPT ALMPS AND PES TO PROVIDE SERVICES TO ROMA MORE EFFICIENTLY

Some ALMPs targeted at economically and socially disadvantaged groups, such as the long-term unemployed, youth, and women, including Roma, have been rigorously evaluated, but no ethnically disaggregated statistics have been produced.[152] A large share of Roma fall into these groups, meaning that some of these programs could reach a relatively large share of Roma even if they are not directly targeted.

The aftermath of the global financial and economic crisis of 2008–09, which drastically increased unemployment in many countries worldwide, saw a renewed interest in the effectiveness of ALMPs. Most evidence points to the relatively small impacts of such policies, but there is no specific evidence of the impact of ALMPs on Roma job-seekers.

In the short run, most ALMPs have relatively small impacts on employment outcomes among beneficiaries. Collecting evidence from 207 impact evaluations carried out mostly in industrialized

152 Mojsoska-Blazevski and Petreski (2015) evaluate eight ALMPs in North Macedonia using quasi-experimental methods. However, their findings are not broken down by ethnic affiliation, which would most likely have been impossible because of the low participation of Roma in each program. In North Macedonia, there are usually less than 10 Roma registered in any given ALMP (ESARM 2017).

countries, Card, Kluve, and Weber (2015) show that ALMPs have relatively small effects in the short run, that is, less than a year after the end of the program, but larger positive effects in the medium and longer run.[153] These results are confirmed by McKenzie's (2017) meta-study of 24 impact evaluations in developing countries. Job-search assistance and sanction programs that emphasize work first have relatively large short-term impacts. Training and private sector employment programs have smaller short-term impacts, but larger effects in the medium and long run. Public sector employment subsidies tend to have negligible or even negative effects at all horizons (Card, Kluve, and Weber 2015; Kluve et al. 2016; McKenzie 2017).

Combinations of programs are more effective overall. Increasingly, programs are addressing several constraints at once, such as credit, training, information, in recognition that solving one problem will not be sufficient, especially among disadvantaged groups. Programs that combine various components appear to be more effective, especially in low- and middle-income countries and among more highly disadvantaged groups (Cho and Honorati 2014; Kluve et al. 2016).

The magnitude of the impact greatly depends on the type of participants. Female participants and long-term unemployed experience the larger impacts of ALMPs, while older workers and youth experience smaller effects (Card, Kluve, and Weber 2015). Programs targeting low-income and disadvantaged populations tend to be more successful (Kluve et al. 2016). By contrast, there is no strong evidence one way or the other that a program's focus on either men or women, rural or urban residents, or different age-groups (among the young) affects the probability of a positive impact. Indeed, certain types of programs work better among specific subgroups of participants. Job-search assistance and sanction programs appear to be relatively more successful among disadvantaged participants, whereas training and private sector employment subsidies tend to work better among the long-term unemployed.

The most promising interventions appear to be ones that help workers access labor markets by overcoming sectoral and, especially, spatial mismatches. Sectoral mismatches arise if people are trapped in the wrong occupations as trade and technology change the demand for labor or because of gender-segregation in society. Campos et al. (2015) show that, in Uganda, women who cross over into man-dominated industries make three times as much as women who remain in woman-dominated industries. Spatial mismatches may also occur because of the limited geographical mobility among Roma communities and the location of job opportunities far from marginalized settlements.

New, low-cost interventions that nudge people into certain kinds of behavior provide promising results on the labor market. An experiment led by the Behavioural Insights Team in the United Kingdom shows that personalized messages sent to job-seekers to remind them to show up at recruitment events increase their probability of showing up by 16 percentage points, more than doubling the chance of participating (Box 4.4).

These findings have important implications for policies aimed at having an impact on Roma job-seekers. Training and private sector employment programs, such as financial incentives to hire Roma, should be preferred because they have the largest impact in the medium and long term. Public works programs should be avoided as they are the most expensive ALMPs, with the worst impact

153 Between 1980 and 2012, 52 evaluations were carried out in Austria, Germany, and Switzerland; 48 in Scandinavian countries; 24 in Australia, Canada, New Zealand, the United Kingdom, and the United States; 33 in countries that were not members of the Organisation for Economic Co-operation and Development; and 19 in Latin America and the Caribbean.

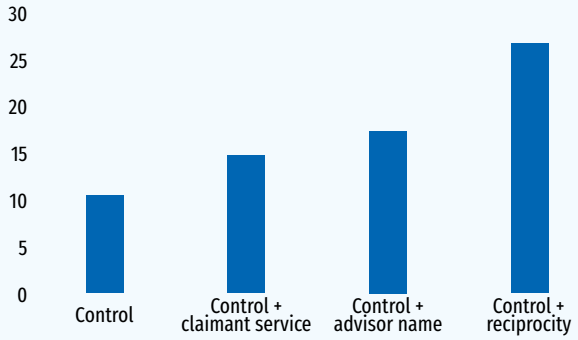
Box 4.4. Using Personalized Text Messages to Prompt People to Turn Up at Recruitment Events

One intervention carried out by the Behavioural Insights Team in the United Kingdom was undertaken with a job center in Bedford and tested the effectiveness of a short messaging service in encouraging prospective workers to attend job fairs. The messaging prompts were simple and worked by informing people when job opportunities arose. But, because different messages are more successful in different contexts, the team tested which were most effective at urging people to attend the events.

Messages that drew on reciprocity turned out to be the most effective (Figure B4.4.1). These work by informing job-seekers that a job advisor has done something specifically for them—in this case, booking them an appointment—and wishing them luck from a named individual. These messages significantly outperform messages that simply tell people where the appointments are taking place, as well as those that rely solely on a personal message with no reciprocity element.

Figure B4.4.1. **Personalized Messages That Draw on Reciprocity Are Most Effective**

Message recipients who turned up at recruitment events, %



Source: Behavioural Insights Team 2016.

once participants have graduated from the program. Focusing on youth, women, and the long-term unemployed is also likely to produce the largest impacts. Policy interventions should focus on training in trades and occupations that are not traditionally open to Roma. Demand-side interventions, such as interventions that provide support to Roma entrepreneurs, should not be ignored. Bertrand and Crépon (2016) find that teaching South African firms about labor laws and providing legal support to help them deal with these laws spurred employment generation.

Many Roma are often unaware of the existence and purpose of national employment agencies, which have few programs and services geared toward helping Roma join the labor market. Several measures would ensure that PESs adapt their services to the specific needs of vulnerable Roma job-seekers.

- PESs should increase their outreach to Roma through awareness campaigns and Roma mediators. Measures to pay for Roma mediators are mentioned in the national action plans of Kosovo and Montenegro. Outreach toward potential job-seekers could also occur through social welfare services: PESs should provide the most disadvantaged Roma with integrated services that are coordinated with social welfare and health services and the local communities. One example is the integrated case management approach followed by the national employment agencies of Bulgaria (Box 4.5).

- PESs should offer skills training that is attractive to Roma and prepares them for occupations and trades that need the new skills (Box 4.6). This may involve an increase in training among low-skilled job-seekers.

- Many services provided by PESs are not accessible to Roma, and removing the minimum education requirements for some training that does not require such skills would allow the inclusion of more vulnerable Roma.

Box 4.5. **The Case Management Approach in Employment Services in Bulgaria**

Case management was introduced as a support method in the Activating the Inactive Persons Program and is part of the activities of employment intermediaries working in the field, including youth mediators, Roma mediators, and case managers.

A youth mediator works actively among young people in community centers and libraries, Internet clubs, coffee shops, shopping malls, cinemas, and so on. The mediator works on his own or jointly with PES staff, NGOs, youth volunteer organizations, local authorities, schools, and employers to identify individuals ages under 29 who do not work or study and are not registered with a PES or are inactive. They work directly with young people to seek and find jobs, assist in employment inclusion and training, including providing help with writing and editing résumés, various job-seeking techniques, appropriate choices in training, and so on.

The objective of a Roma mediator is to shorten the period of inactivity and reduce unemployment spells among unemployed Roma by providing motivation to seek employment and work, study, improve skills, and register with a PES. A Roma mediator operates in Roma communities by organizing formal and informal meetings with the target group. The mediators organize awareness-raising campaigns; hold informal workshops on job-seeking, application preparation and interviews with employers; identify inactive or discouraged persons through informal meetings; provide individual support and practical guidance for the job search.

A case manager delivers a package of information, diagnostics, consulting, and intermediation activities by exploring the needs and potential of the unemployed persons, identifying the challenges related to their employment and social integration, and referring them to social, health, education, and training services. The case manager provides information about available jobs and employment and training programs and measures; mediates between the unemployed and service providers and between the unemployed and prospective employers; and advises the unemployed about individual action plans, portraits, profiles, diagnostics, and performance analysis to enable the unemployed to apply to fill job vacancies and enroll in group counselling, employment agencies, and job-hunting workshops.

This approach is also being implemented in North Macedonia.

Source: World Bank 2016c.

Box 4.6. **Specific Considerations for Roma Job-Seekers**

Young Roma will be, by construction, at the center of most ALMPs: they are young, have low educational attainment and skills, and little work experience. Two groups will need particular attention, women, who have much lower participation rates and are more difficult to reach out to, and older job-seekers, who fail to qualify for programs targeted at youth, may be more likely to have no education or to have attended a special school, and will face multiple barriers in accessing the labor market.

Public works programs may be the only option for the activation of low-skilled long-term unemployed Roma in depressed regional labor markets, though with some modifications to enhance their skills. If these programs are to have a long-term effect, it is crucial that a formal identification of training needs is developed for each client, coupled with the development of an agreed training plan linked to the national qualification framework. The sponsors and managers of community-based employment programs will need to be trained in the development of training plans, staff management, and staff development. This approach should thus avoid programs that focus on short-term, low-skilled employment and provide participants with neither enhanced skills nor better long-term employment prospects. Appropriate project interventions can also overcome barriers between non-Roma and Roma by building confidence through on-the-job training and employment experience. There are already examples of successful public works projects in Bulgaria that demonstrate to non-Roma contractors that Roma can be reliable, effective employees.

Training and requalification needs to be linked to a subsequent job placement. Otherwise, it will risk being unattractive and demotivating for Roma job-seekers and lead to discouragement. (Roma are often locked in traditional Roma arts and crafts training.) If the requalification course does not lead directly to employment, it will not have any effect on the client's standard of living. Indeed, participation, especially repeated participation, without successful subsequent employment may have a negative psychological impact if a client's aspirations and hopes are not fulfilled on the labor market after the client has undergone requalification. This negative effect may be a key contributing factor in the widespread discouragement of jobless Roma. Seamstresses in Moldova, where many European clothing manufacturers produce garments, offer a good example of Roma integration through training.

Specific contracted skills training among Roma should ideally be based on the potential of the trainees rather than their educational attainment. The general experience of Roma is that their lack of education excludes them from economically useful training courses available, such as in welding and other trades. Specialist literacy and preparatory modules and mentoring will need to be built into the training. This provides a challenge for providers, but they must be tasked to meet this challenge through performance payments based on client selection criteria set by the PESs and on placement outcomes.

(continued)

(Box 4.6 continued)

Integrated case management is also key to improving the relationships between public institutions and Roma and providing services to Roma most efficiently. Many Roma show distrust toward institutions. Minimizing the number of interlocutors in the PESs and the social welfare centers is key to establishing a one-stop shop where the most vulnerable can find most of the resources they need to engage with the labor market, the social policy system, health, legal and financial advice, and so on. Such initiatives are particularly important for the most vulnerable Roma receiving social welfare.

LABOR MARKET POLICY MEASURE 3:
ADDRESS DISCRIMINATION AND STEREOTYPING AGAINST ROMA (AND WOMEN) ON THE JOB MARKET

One way to address discrimination is to increase employer awareness and provide information on working with vulnerable and socially excluded groups. For instance, the National Action Plans for Roma Inclusion in Montenegro and Serbia contain a provision calling for training programs on discrimination and the rights described in labor laws. Governments should be called on to practice the same hiring policies that they encourage private enterprises to follow. Governments can take the lead on equal treatment and make public institutions role models for antidiscrimination best practice. Quotas are mentioned in the national action plans of North Macedonia and Serbia. Information campaigns among employers are also important. Apart from legal requirements, employers may have insufficient information about practical issues in the employment of a diverse workforce. Examples of good practice might include taking potential employers on cultural tours of the local ethnic minority community or training employers in compliance with antidiscrimination laws and equitable employment policies.

LABOR MARKET POLICY MEASURE 4:
APPLY INNOVATIVE SCHEMES TO TACKLE LABOR DEMAND CONSTRAINTS AND FOSTER ENTREPRENEURSHIP

Addressing supply-side constraints is not sufficient to increase the employability of Roma; interventions designed to tackle labor demand constraints and foster entrepreneurship should also be implemented. It is important to include in the toolkit demand-side interventions among employers. If only barriers from the side of workers are lifted through higher educational attainment, training, and so on, but demand-side constraints are not tackled, the outcomes may not be as positive as expected. The toolkit might include interventions to promote skills assessments, debiasing, or carrot and stick measures focused on schemes to encourage the private sector to hire Roma.

The World Bank is developing an intervention in Turkey to increase the employability of women by reducing gender stereotyping in local labor markets. The intervention involves assessments of ways to present the socioemotional skills in women's résumés to affect callback by employers. The intervention includes discrete choice experiments among students who aspire to become hiring managers, a correspondence study, and an implicit association test with human resource managers.

Self-employment can be promoted through social enterprise development programs and access to microfinance schemes, but a more comprehensive approach toward financial inclusion is important.

Microcredit has been explored as a tool for promoting self-employment in the EU. For instance, in 2010, the European Parliament and the EC Directorate-General for Regional and Urban Policy financed the Kiút Program, an EC Roma microcredit project. The two-year pilot project in Hungary, an initiative of the Polgar Foundation, aims to assess the viability of using microcredit to raise self-employment rates among Roma. A World Bank study funded by the EC Directorate-General for Regional and Urban Policy used the 2011 RRS to assess Roma financial inclusion in Eastern Europe and the potential of microcredit in promoting Roma self-employment. The study found that microcredit will not substantially raise self-employment rates unless more basic financial gaps are also addressed through more attention on access to bank accounts, targeted savings, financial literacy, and business skills training.

Policy Measures for Health

Box 4.7 summarizes the constraints on Roma in health.

Box 4.7. **Summary of the Diagnostic and Constraints among Roma in Health**

Roma have limited access to medical care and preventive care. Financial cost is the main barrier to health care among Roma, though lack of information, language barriers, and discrimination also play a role. Access to documentation, especially in Montenegro, may also be a necessary (though not sufficient) condition for Roma to access care.

There are large ethnic gaps in health insurance coverage in Albania, Bosnia and Herzegovina, and Montenegro. Health insurance coverage is especially low at a national level in Albania and Kosovo.

Self-perceived health is poorer among marginalized Roma than among neighboring non-Roma, possibly indicating lower objective health outcomes among Roma.

Three main policy measures can help improve health outcomes among Roma. These are (1) promote health knowledge and awareness through Roma health mediators, (2) support universal health coverage and endorse the financial coverage of medical bills among the poor and vulnerable, with an emphasis on preventive care, and (3) provide training to medical providers to prevent discriminatory practices.

HEALTH POLICY MEASURE 1:
PROMOTE HEALTH KNOWLEDGE AND AWARENESS THROUGH ROMA HEALTH MEDIATORS

Awareness campaigns among local medical staff, social workers, and entry points outside the immediate health system should be used to promote greater health among Roma. For instance, in Romania, Roma health mediators were introduced by an NGO, the Romani Center for Social Intervention and Studies, in 1992 as part of a community conflict mitigation program. The program was institutionalized in 2002. Roma mediators serve as a bridge between Roma communities and schools or health facilities and between Roma families and public officials. Qualitative research conducted by the World Bank (2014b) in Romania suggests that the mediators can contribute to changing social

norms that have discouraged the uptake of health services. A regional qualitative review of Roma health mediators by the Open Society Public Health Program shows that mediators have reported a reduction in the discriminatory behaviors and use of abusive language of doctors with whom they work. They also believe that they have helped physicians gain a better understanding of Roma and enhanced their ability to provide care through more effective interactions with Roma patients. All Western Balkans countries include Roma health mediators in their national action plans, except Serbia.

HEALTH POLICY MEASURE 2:
SUPPORT UNIVERSAL HEALTH CARE COVERAGE AND ENDORSE THE FINANCIAL COVERAGE OF MEDICAL BILLS AMONG THE POOR AND VULNERABLE, WITH AN EMPHASIS ON PREVENTIVE CARE

In view of the low economic status of many Roma households, cost is an obvious demand-side barrier. Health insurance largely removes this barrier. However, Roma are significantly less likely to have insurance because they lack identity papers, do not qualify for health insurance because of income or employment status, or do not know how to access health insurance. The provision of health insurance to low-income households could be extended in all countries of the Western Balkans and could be tied to the guaranteed minimum income scheme.

Evidence on Georgia shows that providing generous insurance for the most vulnerable increases the use of formal health services, especially among the poor. In 2006, Georgia embarked on a health care financing reform and introduced medical insurance for the poor. Instead of offering universal health coverage, the reform focused on the poorest. It provided more generous benefits to the poorest than to other groups in the population and did so through insurance purchased by competing private insurance companies. Medical insurance for the poor was only found to have an impact on the capital, Tbilisi, where the beneficiaries of medical insurance for the poor were 12 percent more likely to use formal health services and 7.6 percent more likely to use hospitals, compared with other parts of the country. The cost reductions were sizable and more pronounced among the poorest. Medical insurance for the poor significantly increased the odds that insured individuals would obtain free benefits (Gotsadze et al. 2015). Focusing on covering preventive care, as is currently being done in North Macedonia, can be be particularly cost-effective.

HEALTH POLICY MEASURE 3:
PROVIDE TRAINING TO MEDICAL PROVIDERS TO PREVENT DISCRIMINATORY PRACTICES

Antidiscrimination training should be provided to medical staff. Medical facilities should be made more accessible to Roma who face language barriers and lack transportation to the facilities and relevant papers (identity cards, health registration). Longer consultation times and practical arrangements, such as creating the necessary space in waiting rooms for Roma, who often come in groups, are also an important way of gaining Roma's trust. The collaboration between health care providers and welfare professionals should be strengthened, especially in care for the most vulnerable Roma, who receive the guaranteed minimum income benefit. Roma-sensitive training is included in national action plans in Albania, Kosovo, North Macedonia, and Serbia.

Interventions designed to change the attitudes or biases of service providers can also be used to change discriminatory practices toward Roma. Johns Hopkins University has developed a provider behavior change implementation kit that can be adapted to change the biases of service providers. The associated interventions consist of (1) understanding the barriers health care providers face, (2) Identifying whether the barriers can be addressed through a social and behavior change

communication approach, and (3) developing an intervention relying on this approach to influence the attitudes, beliefs, and norms that undermine the willingness and ability of providers to perform their jobs well.

Policy Measures in Housing and Access to Essential Services

Box 4.8 summarizes the constraints on Roma in housing and access to essential services.

Box 4.8. Summary of the Diagnostic and Constraints among Roma in Housing and Access to Essential Services

A large share of Roma still live in substandard housing. Many Roma are affected by insecure property rights, and a significant share of Roma are afraid they will be evicted. Though there have been some improvements, the majority of Roma still live in overcrowded conditions because they more typically live in smaller dwellings and tend to have larger households. Important gaps persist in access to essential services such as electricity (especially in Albania and Serbia), piped water (especially in Albania), public sewerage (especially in Montenegro), and waste collection.

Discussions with key stakeholders highlight the fact that, if Roma are provided with adequate housing, this is not done in a holistic, sustainable manner. For example, access to schools and jobs is not taken into account when Roma are resettled. Moreover, Roma are often moved to social housing projects without their expressed agreement or to places where they no longer have ties to the community. Social housing should be defined transparently. Regulating evictions as well as monitoring segregation, defining measures to control it, and passing laws against it are also important.

A World Bank (2014) handbook on guidelines for improving the living conditions of Roma provides recommendations on interventions that can be implemented to address the key needs of mostly ethnic minorities, migrants, and disadvantaged communities. It analyzes the current situation and the numerous ongoing interventions aimed at enhancing Roma inclusion in local communities. The key finding is that disadvantaged Roma communities are heterogeneous, face many particular impediments, and have diverse needs. The evaluation explored 53 case studies—17 global and 36 in Europe—and found no substantial achievements in Roma inclusion. There were 36 projects focused on improving the living conditions of Roma in Bulgaria, the Czech Republic, France, Hungary, Italy, Romania, the Slovak Republic, Spain, and the United Kingdom. These programs were only integrated and only targeted Roma communities on paper, while, in reality, funds were used for infrastructure development that benefited middle-class and non-Roma populations. The analysis also reveals problems in assigning responsibilities, the lack of an overall mandate for each aspect of comprehensive activities, and failure to involve adequate local partners. National integrated programs are often not designed specifically to benefit Roma communities, and Roma benefit only marginally from program activities.

Three main policy measures might help improve access to decent housing among Roma. These measures require that the range of tools, including projects and programs, available to the government be broadened and thus go beyond social housing and housing allowances. The measures are (1) improve the housing conditions among the least well off Roma living in slum areas, (2) help poor families move into better housing through holistic, participatory approaches, and (3) legally certify construction and occupancy.

HOUSING POLICY MEASURE 1:
IMPROVE HOUSING CONDITIONS AMONG THE LEAST WELL OFF ROMA LIVING IN SLUM AREAS

There are few examples of in situ upgrading in Roma housing projects in the Western Balkans region; one exception is the Social Inclusion and Improvement of Living Conditions Program in Novi Sad, Serbia. The project is based on in situ upgrading and the participation of residents in their housing choices (Jovanović and Bu 2014). National action plans in Albania, Bosnia and Herzegovina, North Macedonia, and Montenegro include the rehabilitation and upgrading of houses for Roma families. Such in situ upgrading projects can be embedded in a multisectoral approach as in the Priority Intervention Project in Bora, Romania, which sought to provide community-based social services to a marginalized Roma community, including school integration among children and social, cultural, and educational counseling activities among adults.

HOUSING POLICY MEASURE 2:
HELP POOR FAMILIES MOVE INTO BETTER HOUSING THROUGH HOLISTIC, PARTICIPATORY APPROACHES

The Programa de Vivienda de Integración Social (Housing Programme for Social Integration) implemented by the government of the Autonomous Community of Navarra in northeastern Spain between 1998 and 2009 helped Roma slum dwellers move into dignified, adequate housing. The program was run using a holistic approach that took into account employment, education, and health. To be approved as beneficiaries, families had to commit to adhering to various social inclusion measures, such as school attendance, health monitoring, participation in vocational training, and so on. NGOs provided assistance with finding employment and ensured that beneficiaries made use of available social services (FRA 2009). The Instituto de Realojamiento e Integración Social (Institute for Rehousing and Social Integration) of the government of the Autonomous Community of Madrid has been operating since 1998. Among its mains objectives are to provide adequate housing to slum dwellers, to facilitate the social integration of families inhabiting slum dwellings or inadequate housing, and to facilitate coordination with social partners. Social workers, educators, and teachers visit the slum-dwelling families regularly, introduce them to social services, and provide mediation in case of conflict between the family and neighbors. They also facilitate communication among program beneficiaries living in the same areas, thereby promoting social cohesion and helping families integrate into their new neighborhoods. A drawback of these programs is that Roma were not involved directly in the design or implementation. The participation of beneficiaries across the project cycle, from preparation to implementation, is critical, as evidenced by an intervention in Colombia aimed at increasing connectivity in vulnerable neighborhoods (World Bank 2014c).

HOUSING POLICY MEASURE 3:
LEGALLY CERTIFY CONSTRUCTION AND OCCUPANCY

In North Macedonia, the Law on the Treatment of Unlawful Construction sets among the most flexible conditions for legal authorization and certification of construction in the Western Balkans:

legalization per square meter is affordable, and the technical steps that must be undertaken to complete an application are uncomplicated (Jovanović and Bu 2014). The Complementing EU Support for Agricultural Restructuring Project in Romania facilitates the legal recognition of property rights among vulnerable groups through vulnerability mapping, local awareness campaigns, community meetings, social monitoring, and the introduction of flexible registration instruments, such as certificates of possession. All countries in the Western Balkans include provisions on legal certification and property ownership documentation in their national action plans as a priority in favor of Roma households.

Policy Measures in Civil Documentation

Box 4.9 summarizes the constraints on Roma in civil documentation.

Box 4.9. Summary of the Diagnostic and Constraints among Roma in Documentation

Access to documentation is quasi-universal in the case of birth certificates in the Western Balkans, and the coverage of identification cards is above 90 percent in all countries but Montenegro (83 percent of the population, with no improvement over time). The lack of civil registration may constrain the eligibility of Roma to access social services, such as schools, health care facilities, and credit. For example, many Roma in Albania cannot provide the documentation required to prove residence or income and thereby establish their eligibility to receive the government-funded benefits (ERRC 2017). The lack of documentation is also associated with a lack of health insurance in Montenegro, as demonstrated in the RRS.

Two main policy measures can help improve access to documentation outcomes among Roma. These are (1) reduce the burden and costs associated with civil registration, paying particular attention to IDPs and returning Roma, where the share of individuals lacking proper documentation is larger; (2) raise awareness on the benefits of civil registration.

DOCUMENTATION POLICY MEASURE 1: REDUCE THE BURDEN AND COSTS ASSOCIATED WITH CIVIL REGISTRATION, PAYING PARTICULAR ATTENTION TO IDPS AND RETURNING ROMA

Improving access to documentation is essential to guaranteeing that Roma are full-fledged citizens and have access to public services and the labor market. While the priority should be to ensure that Roma have access to birth certificates and identification cards, simple measures can be taken to facilitate access to services without proper documentation. In Serbia, people lacking formal residence may obtain access to social services by claiming the nearest social welfare office as their legal address. Baby, Welcome to the World, a government project, was also established to simplify birth registration by allowing parents to register in maternity wards, saving them time and money. In Albania, rent contracts, which are often not signed or submitted by landlords because of the associated taxes, are no longer needed to register residency in Tirana. Particular attention should be paid to IDPs and returning Roma, among whom the share of individuals without proper documentation is greater. As discussed with Roma stakeholders, funding professional legal aid and DNA testing might also be implemented to help Roma and other undocumented individuals.

DOCUMENTATION POLICY MEASURE 2:
RAISE AWARENESS ON THE BENEFITS OF CIVIL REGISTRATION

Raising awareness is especially important in Montenegro because the substantial population of IDPs and the relatively low coverage of identification cards limit access to social services. Language barriers may also affect access. So, information campaigns should be not only in majority languages, but also in Romani and other minority languages. Roma mediators could also help by establishing trust and breaking down language or illiteracy barriers.

Policy Measures on Gender as a Cross-Cutting Theme

Box 4.10 summarizes the constraints on Roma related to gender.

Box 4.10. **Summary of the Constraints Related to Gender**

Roma face large gender gaps in two main areas: the completion of compulsory education and links to labor markets, especially labor force participation. The gender gaps are attributable partly to discrimination and social and community norms, including child marriage. The availability and affordability of childcare and eldercare, generally lacking in the region, hinders the ability of women to participate in the labor market, though social norms that relegate women to care duties also play an important role. Child marriage, early family formation, low educational attainment, and care responsibilities represent critical constraints on Roma female employability.

Five main policy measures may help narrow gender gaps among the Roma population. These are (1) provide additional financial incentives for girls to attend school such as more generous CCTs for girls than for boys; (2) a focus on ALMPs aimed at Roma women; (3) implement measures to reduce gender-biased social norms; (4) undertake measures to overcome constraints related to young women's care responsibilities; and (5) implement measures to promote social cohesion using the proven model of self-help groups. Measures to increase the supply, use, and affordability of preprimary education, childcare and eldercare would also have an impact on female labor force participation.

GENDER POLICY MEASURE 1:
PROVIDE ADDITIONAL FINANCIAL INCENTIVES TO GIRLS TO ATTEND SCHOOL, SUCH AS MORE GENEROUS CCTS FOR GIRLS THAN FOR BOYS

A large literature finds that, if parents are provided with more financial assistance for the education of daughters than for the education of sons, the impact on enrollment rates among girls is large. One of the earliest CCT programs was launched in Mexico's poorest districts in 1997. Reflecting an aware of the differences in the attitudes of parents toward education among boys and education among girls, the program, now known as Prospera, offered larger cash transfers for girls than for boys. The value of the monthly grant ranged from around Mex$105 (US$10.50) for a child in third year of primary school to about Mex$580 (US$58) for a boy and Mex$660 (US$66) for a girl in the third year of upper-secondary school. The initial analysis of Prospera's impact on education shows that the program significantly increased the enrollment of boys and girls, particularly of girls in secondary school (Skoufias and

McClafferty 2001). CCTs also often have indirect positive effects by helping delay marriage and reproduction among girls. Thus, Baird et al. (2010) find that, in Malawi, when the households of a mix of girls and young women ages 13–22 who were either still in school or who were still eligible to go to school, but had dropped out before the start of the CCT program, received CCTs conditional on the girls and young women attending school, not only were there large increases in school enrollment, but also marriage rates and pregnancy rates declined among the group.

GENDER POLICY MEASURE 2:
FOCUS ON ALMPS AIMED AT ROMA WOMEN

While no ALMPs are specifically designed for women, ALMPs tend to have greater impacts on women. Policies to reduce the gender gap in labor market participation should thus consist of two main components, as follows:

- First, given that the share of Roma females who register with PESs is much smaller than the share of Roma males, interventions should reach out to women who are not engaged in the labor market. They might do this by relying on community mediators, for instance, or through social welfare centers that administer social assistance, such as guaranteed minimum income programs.

- Second, interventions should emphasize training and private sector employment programs attractive to females, as well as employment quotas among females, especially in the public sector, which could set an example of the best practice to be adopted by the private sector. It is fundamental that Roma women be offered training and private sector employment programs that do not lock them into occupations and trades not synced with growth sectors. Campos et al. (2015), for instance, show that, in Uganda, females who cross over into male-dominated industries make three times as much as females who remain in female-dominated industries.

GENDER POLICY MEASURE 3:
IMPLEMENT STEPS TO REDUCE GENDER-BIASED SOCIAL NORMS

A combination of self-help measures for women and promotional campaigns that highlight the success stories of Roma women should be implemented. First, a qualitative study carried out in Serbia by the World Bank highlights the need for integrating Roma women in self-help groups of women from diverse communities, but similar socioeconomic background. The groups could help women build social capital through networks, develop fresh capabilities that would have a long-term impact on voice, establish bargaining power within households that defy deeply entrenched conventions of gender, expand notions of self-worth among Roma, and gain access to financial opportunities. Only interventions that lead to multiple, repeated situations in which women and Roma participate equally and are acknowledged as equal in competence with similar men and non-Roma counterparts at socially valued tasks are likely to be successful. Second, public, promotional campaigns can highlight successful women entrepreneurs and students to help encourage girls and women to pursue education and business activities and to bring men on board about the benefits of women's increased agency and employment opportunities. Roma women (particularly youth), unlike their non-Roma counterparts, believe that there are few role models in their communities, which makes the visualization of career pathways difficult. By showcasing a diverse range of successful Roma students and business women in neighborhoods, villages, and municipalities would go a long way to helping Roma girls.

The evidence of the RRS shows that child marriage is a major reason Roma females drop out of school. Programs to address this problem should be designed, piloted, and evaluated. An example of a relevant intervention is an ongoing World Bank project in Bulgaria, currently at the design stage, which is aimed at delivering information and message campaigns that would help reduce the number of school dropouts among Roma girls in Bulgaria. The project includes a normative messaging campaign focusing on aspirations that may influence the decision of Roma girls to continue their education and eventually enter the labor market.

GENDER POLICY MEASURE 4:
IMPLEMENT MEASURES TO OVERCOME CONSTRAINTS RELATED TO YOUNG WOMEN'S CARE RESPONSIBILITIES

Interventions to overcome constraints related to young women's care responsibilities can be classified into two types: (1) among females who do not have children, interventions that seek to delay marriage and reduce the fertility rate through supply-side or demand-side approaches, such as by raising enrollment and the retention of girls in school, and (2) interventions that alleviate the time constraints on women who already have children, for example, through childcare service provision.

Evidence on Africa shows that cash transfers conditional on school attendance may help delay marriage and childbearing. The Zomba Cash Transfer Program, in Malawi, provided females ages 13–22 who have never married and their parents with monthly cash transfers for two consecutive years, conditional on school enrollment. The randomized evaluation shows that, after only one year in the program, girls who had dropped out of school at baseline were 12 percentage points less likely to be married and 5 percentage points less likely to be pregnant (Baird et al. 2010). A randomized evaluation in Kenya found that offering free school uniforms over the last years of primary school had reduced both the school drop-out rate and the teen pregnancy rate by 3 percentage points after three years (Duflo, Dupas, and Kremer 2014).

Evidence on Latin America and Africa shows that relieving childcare responsibilities may lead in increases in labor force participation. A randomized evaluation in Mozambique found that freeing up 15 hours of childcare each week leads to a 26 percent rise in activity rates among caregivers of preschoolers (Martinez, Naudeau, and Pereira 2012). Similar results have been found in Latin America (Attanasio and Vera-Hernandez 2004).

GENDER POLICY MEASURE 5:
IMPLEMENT MEASURES TO PROMOTE SOCIAL COHESION USING THE PROVEN MODEL OF SELF-HELP GROUPS

Coordination among the poor and the vulnerable is generally costly, and women face barriers to collective action in communities. Several efforts have been developed to organize the poor through self-help groups in all parts of the world. The groups are typically membership-based organizations that seek to promote social cohesion through a mixture of education, access to finance, and links to development programs. The model relies on women's collective capacity to break barriers and increase farm, nonfarm, and off-farm productive activities to empower women through increased assets, income, and agency to make decisions for themselves and their families. This objective is to be achieved by establishing support networks, gaining access to finance, and enhancing the ability to compete in the marketplace. The World Bank has successfully implemented this women empowerment

approach in South Asia for over 20 years. The model has since been applied in Africa, East Asia, Latin America, and the South Caucasus.

Policy Measures to Address Discrimination as a Cross-Cutting Issue

Box 4.11 summarizes the findings on Roma and discrimination.

Box 4.11. **Summary of the Findings on Roma and Discrimination**

Discrimination must be tackled as a cross-cutting issue. Gaps in education, labor markets, and health are not necessarily explained by differences in characteristics between Roma and neighboring non-Roma. Discrimination is a possible reason for many of the gaps; this is true across all countries. Across countries, a significant share of Roma also report that they have been victims of discrimination at school, at work, in accessing health services, and while looking for housing or accessing housing services. This occurs in both the private sector and the public sector. However, many Roma are not aware of or do not know how to use the legal resources available if they have been victims of discriminatory practices. Tackling discrimination, prejudice, and stereotypes requires interventions across all areas of a society.

Several sectoral measures have been proposed to address stereotyping and discrimination; others need to be implemented in a cross-cutting fashion. Measures that have been proposed in Romania to tackle discrimination include (1) establishing local assistance and service systems for victims of discrimination and (2) introducing a surveillance mechanism to detect and reduce negative stereotypes of Roma in the media.

ANTIDISCRIMINATION POLICY MEASURE 1:
ESTABLISH LOCAL ASSISTANCE AND SERVICE SYSTEMS FOR VICTIMS OF DISCRIMINATION

A service could be established that addresses particular cases of discrimination, aids the victims, and helps them navigate their legal options, including complaints to civil courts. For example, a telephone hotline could be made available that Roma could contact at any time to seek guidance on the use of the service to report and address discrimination.

ANTIDISCRIMINATION POLICY MEASURE 2:
INTRODUCE A SURVEILLANCE MECHANISM TO DETECT AND REDUCE NEGATIVE STEREOTYPES OF ROMA IN THE MEDIA

Television, film, and advertising media that perpetuate negative stereotypes of Roma could be identified and monitored, in cooperation with the governing body regulating national media industries. If discriminatory practices are detected, the governing body could send an advisory, which could be followed up by a sanction, to the producer or outlet responsible for the content, raising awareness of the effects such stereotyping might have on society.

The Way Forward: Breaking the Cycle of Roma Exclusion through an Integrated Approach

This report shows that Roma face multiple barriers and constraints that hinder their ability to accumulate human capital, participate in labor markets on an equal basis, and generate economic gains to move upward on the socioeconomic ladder. Roma encounter these barriers from an early age and are confronted by them throughout the life cycle. The barriers and constraints block access to social services and economic opportunities, but they also create an intergenerational vicious circle. If today's Roma lack access to the opportunities available to non-Roma, tomorrow's Roma are likely to do so as well.

To break the cycle of Roma exclusion, a coordinated, comprehensive, and integrated approach that addresses barriers and constraints throughout the life cycle is needed. An integrated approach ensures that the multiple barriers that Roma face are addressed in a holistic manner through the provision of essential services and social benefits and interventions. It recognizes that the household should be the focus of social service and benefit delivery and that synergies and complementarities across programs should be exploited, whereas duplications should be avoided. Such an approach also recognizes that discrimination, prejudice, and negative stereotyping and negative social, community, and gender norms reinforce the barriers faced by Roma. Interventions that address these cross-cutting constraints across all aspects of service delivery should therefore also be considered.

An integrated approach requires a coordinated effort across multiple sectors, including governments and communities. It recognizes the need for multiple service providers who tackle social exclusion across various sectors through social intermediation. To achieve a coordinated effort, service management and delivery must ensure timely identification of vulnerable groups, conduct rapid needs assessments, and provide tailored services. The availability of accurate information is thus crucial.

Vulnerability diagnostics are a necessary step in realizing tailored services. The identification of regional sources of vulnerability in education, health care, labor markets, housing, and so on is key for the design of an optimal policy, program, and service mix for the integration of Roma and other vulnerable groups.

Accurate data, monitoring, and evaluation are required to remain informed whether the current mix of policies and programs is well designed and aligned with the vulnerability profile of Roma and other vulnerable groups that compose the target population. The analysis of social program inventories can contribute to a more systematic path to social protection. Such an assessment can help establish (1) if the program design is appropriate to the barriers and constraints faced by the target population; (2) whether any vulnerable groups are excluded because of, for example, program eligibility requirements or geographical location; (3) if there is any duplication or any gaps in the mix of program and services; (4) if there are duplications in administrative infrastructure; and (5) if there are potential synergies or complementarities among programs and services if these are implemented simultaneously or consecutively.

A case management approach to service delivery helps guarantee that social services, social benefits, and social interventions are provided in an integrated and coordinated manner, that the duplication of services and benefits are avoided, and that individual and household needs are addressed in

a holistic fashion. A case management approach is essential for boosting effectiveness. The case management approach is a strategy for coordinating the provision of services across programs and departments. It allows the options and services required to meet the needs of beneficiaries to be designed, monitored, and evaluated, and it facilitates the harmonization of access to services and benefits to support the household as a unit. It helps in establishing effective links between users and services and in the provision of services tailored to the needs of vulnerable individuals and households. The experience of Chile Solidario serves as an example of a successful approach to the integrated delivery of social services through case management and social intermediation (Box 4.12). Another example is Red Unidos in Colombia.

Box 4.12. Chile Solidario: An Integrated Approach to Case Management and Social Intermediation Services

The government of Chile implemented Chile Solidario as a flagship antipoverty program in the early 2000s. It was targeted on the poorest 5 percent of the population. This group was not only extremely poor; it was also alienated from the social services that were potentially available to them. This alienation resulted in persistent poverty despite the economic growth of the country and the available social programs.

Chile Solidario is based in two components. On the demand side, home visits are carried out by social workers to provide intense psychosocial support and assist households in participating independently in available service and social benefit programs. Psychosocial support consists of direct personalized support for beneficiary households for up to two years. Case managers also assist households in navigating the procedures for the benefits to which households are entitled. Households in the program also receive a cash transfer of which the amount gradually decreases during the two-year intervention.

On the supply side, the program supports the coordination of available services to match the needs of the participating households. Program beneficiaries have priority access to these social services, for which the program establishes assistance agreements with providers for the supply of free access to health services, preferential access to training programs, preferential access to small business support program, and so on.

Based on a rigorous impact evaluation, the program has proven to be an effective mechanism to (1) increase the uptake of available social benefits; beneficiary households are likely to have increased the uptake of the main social cash allowance by 18 percent and 22 percent two and four years after enrollment in the program, respectively; (2) expand the participation of beneficiaries in employment programs offered by the public sector; and (3) promote employment among married women.

Source: Salazar et al. 2018.

Social registries play an important role in monitoring and evaluation and serve as a key tool for administrative functions and case management. Social registries include information from administrative databases across government agencies, such as education, health, social security, tax

authorities, and civil registries. They encompass beneficiary registries, which support the process of registration and the determination of the eligibility of beneficiaries and potential beneficiaries of various social programs and services, in addition to enrollment. They also include the administrative systems that support program implementation, including payment service systems and case management systems. They rely on data exchanges and are periodically updated and validated thereby reducing duplication and errors, improving transparency, and lowering administrative costs. When well designed, they also provide citizens with dynamic inclusion by providing a single gateway to all social programs and allowing citizens to update their personal information at any time. In this way, social registries can respond to shocks on time and aid in crisis response. They are a useful tool for analyzing and monitoring the multidimensional needs of the population and the potential demand for social programs.

The successful integration of Roma cannot be realized without actively reaching out to communities. Eligibility is not sufficient to ensure program take-up. Many Roma live in isolated communities and are unaware of the social services and programs available. Illiteracy, lack of access to information, lack of trust in local authorities, and even lack of perceived need (as in the case of childcare) are among the barriers faced by Roma. Actively searching for users, rather than waiting for users to seek out services is necessary to ensure that programs and services reach Roma. Communication campaigns are important, but Roma mediators can also play an important role in establishing trust and ensuring participation.

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Appendices

Appendix A. **Methodological Note**

The 2017 Regional Roma Survey

The 2017 round of the Regional Roma Survey (RRS) was implemented by the United Nations Development Programme (UNDP), with support from the World Bank and sponsored by the European Commission (EC) Directorate-General for Neighbourhood and Enlargement Negotiations (DG NEAR).[154] The survey was administered in six Western Balkan countries: Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro, and Serbia. The survey, which is a repeater of the 2011 round of the RRS, examines living conditions and key human development outcomes within Roma households and non-Roma living in close vicinity to Roma. The sample consists of around 750 Roma and 350 non-Roma households in each country.

Target Population

The survey follows a sampling methodology in which randomly selected Roma households in settlements with a high concentration of Roma were targeted, that is, a concentration above the national average density of the Roma population. Individuals living in such settlements are referred to as marginalized Roma (Gatti et al. 2016). This means that the survey does not cover territorially dispersed, integrated Roma. The marginalized Roma population can be segmented into two groups: (1) Roma who live in Roma clusters (areas within settlements in which the share of Roma is more than 40 percent) and (2) Roma who live in clusters with a lower concentration of Roma (areas in which Roma represent between 10 percent and 40 percent of the population). While both the 2011 and 2017 RRS rounds cover settlements that represent marginalized Roma, given that the share of Roma is greater than the national average, and areas within settlements in which the concentration of Roma is greater than 40 percent, only the 2017 survey covers areas within settlements in which the concentration of Roma is lower, that is, between 10 percent and 40 percent.

In defining the Roma sample, households were classified as Roma or non-Roma based on the explicit self-declaration of ethnicity by the head of household. A control sample of non-Roma communities living in close proximity (within 300 meters) of these Roma was also surveyed. Thus, the sample is by no means nationally representative of the overall non-Roma population. The purpose of this non-representative design was to introduce into the sample design some controls for unobserved factors (mostly those related to geography), which might otherwise mistakenly be ascribed to ethnicity. The choice of design allows for sound comparisons between Roma and non-Roma living in otherwise similar circumstances using a relatively small control sample of non-Roma.

154 The survey design also benefited from technical inputs provided by the European Union (EU) Agency for Fundamental Rights to ensure some degree of comparability with the repeater survey conducted in EU member states in 2016.

Sampling Frame and Design

Given that there are no precise data available on the structure and distribution of Roma in smaller local administrative units, the list of administrative settlements in the census that include information about the size of the Roma population was used as the sampling frame in most countries. Although it is broadly acknowledged that census data underestimate the absolute Roma population, it can still be assumed that they adequately reflect the structure and geographical distribution of individuals who self-identify as Roma. The data on the share of the Roma population was used as the size that established the probability of settlement selection. Given that the sampling frame includes data on settlements, it was necessary to implement a random, multistage cluster sample design, which enables better sampling control and clearly defined selection probability. The sample was stratified proportionately based on geographical divisions with the goal of optimizing the sample plan and reducing the sampling error. This ensures that the sample exhibited proportional representation of the geographical distribution of the Roma population within each country. Also, when data were available, stratification was performed by settlement type (urbanity level). (Map A.1 shows the maps on Roma population shares and coverage produced on the five of the six Western Balkan countries; Kosovo maps are not available.)

The sample selection included the following stages:

Stage 1: Stratification and selection of primary sampling units
First, settlements were selected with probability proportional to size, whereby settlements with a high density of Roma population (above the national average) were chosen. Because the selected settlements are also quite large, they were divided into smaller units (clusters) suitable for use as primary sampling units. These clusters were of approximately equal size in terms of Roma population (approximately 30 households). Then, primary sampling units were selected. These are clusters with more than 10 percent concentration of Roma. Within each unit, 10 interviews were completed, 7 interviews among the Roma population and 3 interviews with non-Roma living in close proximity to Roma.

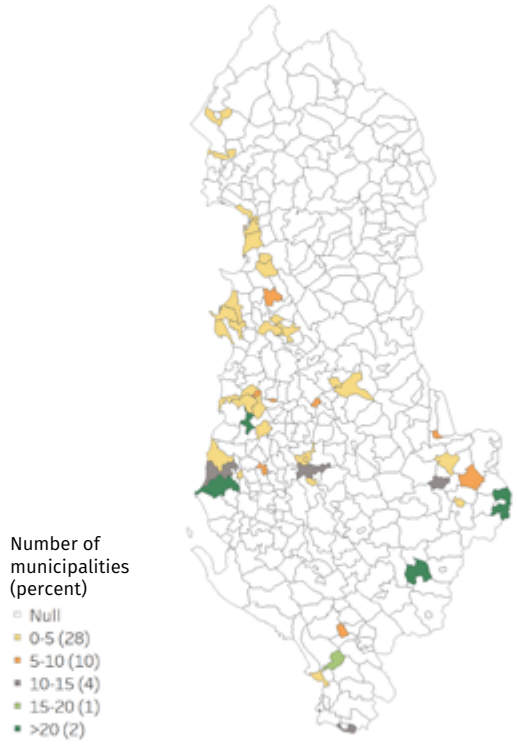
Stage 2: Selection of households
Households were chosen within each of the sampled primary sampling units with equal probabilities and selected by the method of random start and equal random walk. Random walk implies that the interviewer selects the respondent for interview during fieldwork using a standard set of instructions, and the procedure simulates systematic random sampling.

Stage 3: Selection of respondents in the household
Module 4 of the questionnaire required the selection of household members ages 16+. The selection of the random respondent was carried out automatically by the interviewing software used during fieldwork.

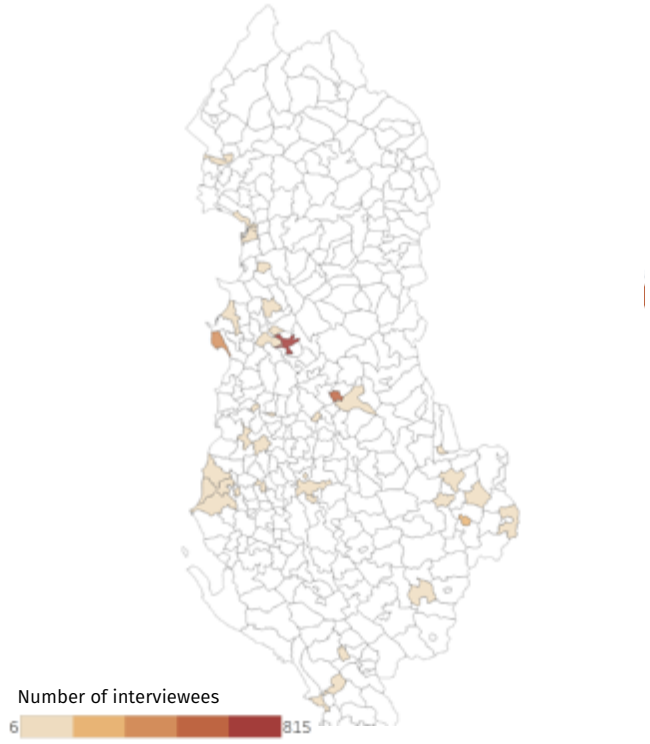
Map A.1. **Roma Population and Coverage of the 2017 Regional Roma Survey**

a. **Albania**

Roma population (% total population)



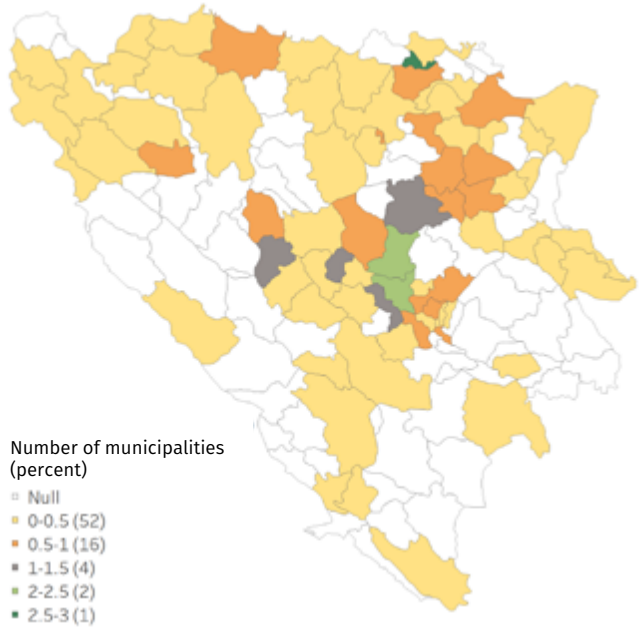
2017 Surveyed municipalities



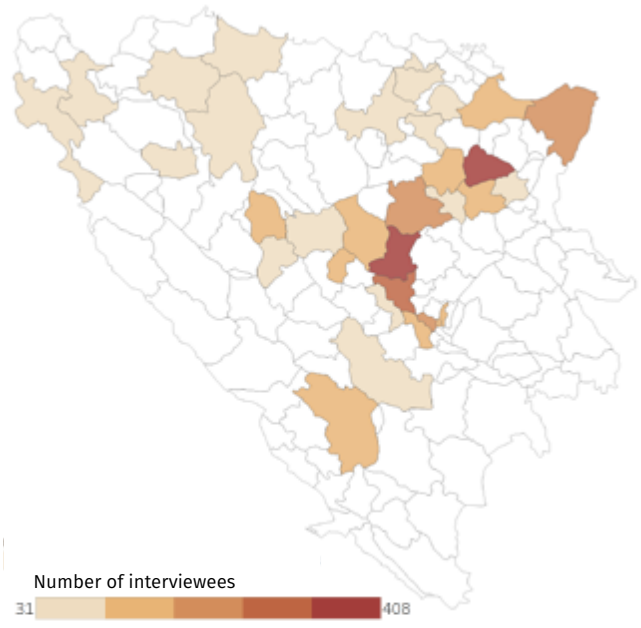
Source: List of Roma settlements.

b. **Bosnia and Herzegovina**

Roma population (% of total population)



2017 Surveyed municipalities

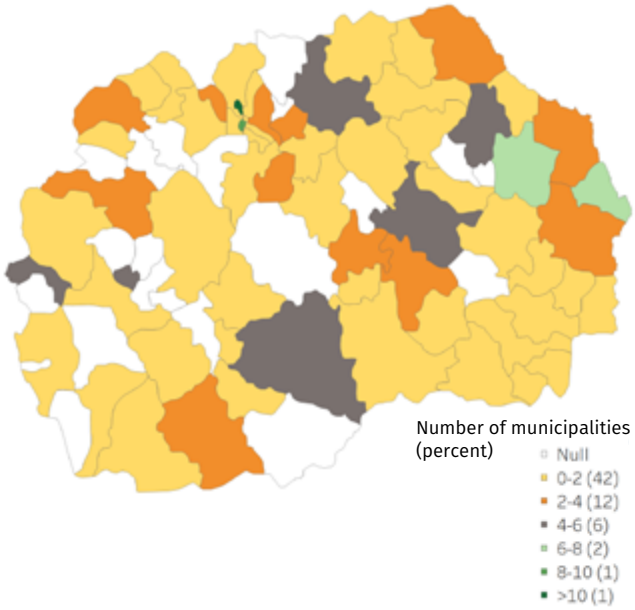


Source: 2013 Bosnia and Herzegovina Population Census.

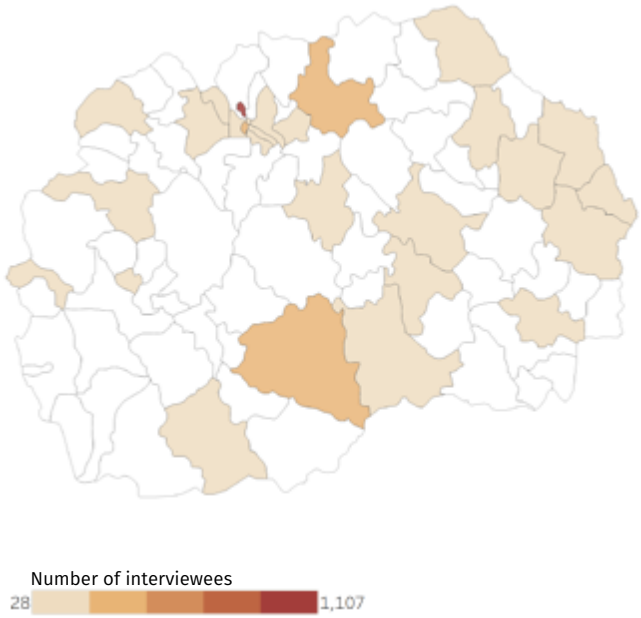
Map A.1. **Roma Population and Coverage of the 2017 Regional Roma Survey** (continued)

c. **North Macedonia**

Roma population in (% of total population)



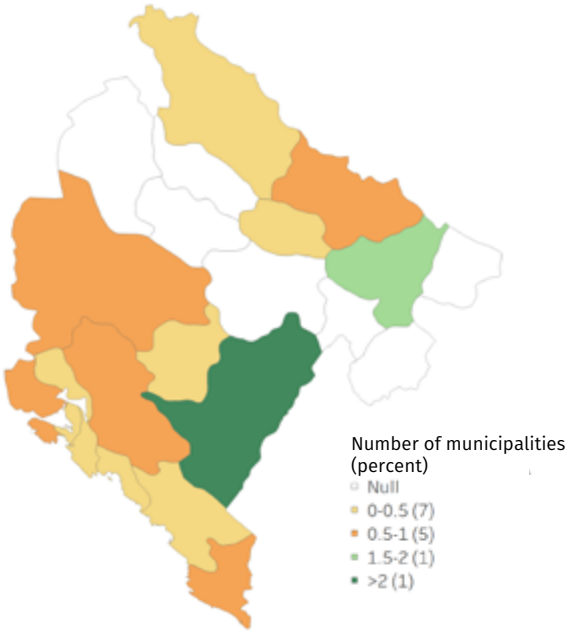
2017 Surveyed municipalities



Source:2002 Population Census.

d. **Montenegro**

Roma population (% of total population)



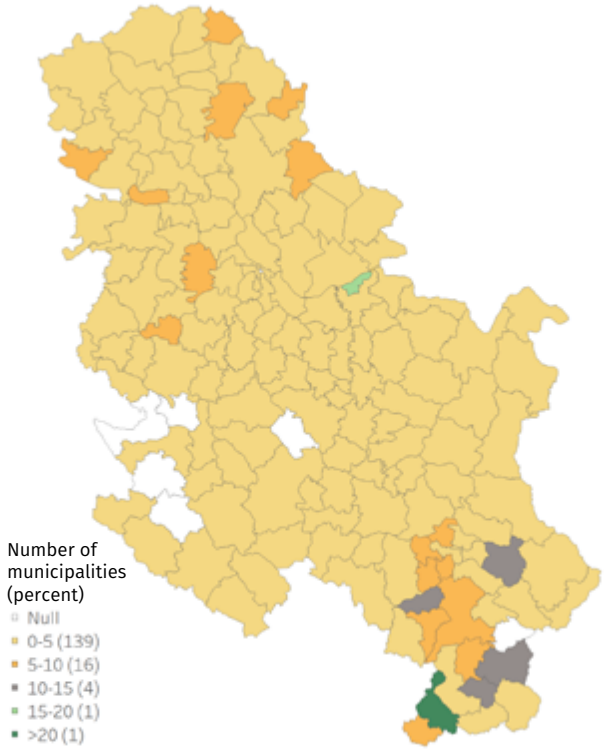
2017 Surveyed municipalities

Source: Population census 2011.

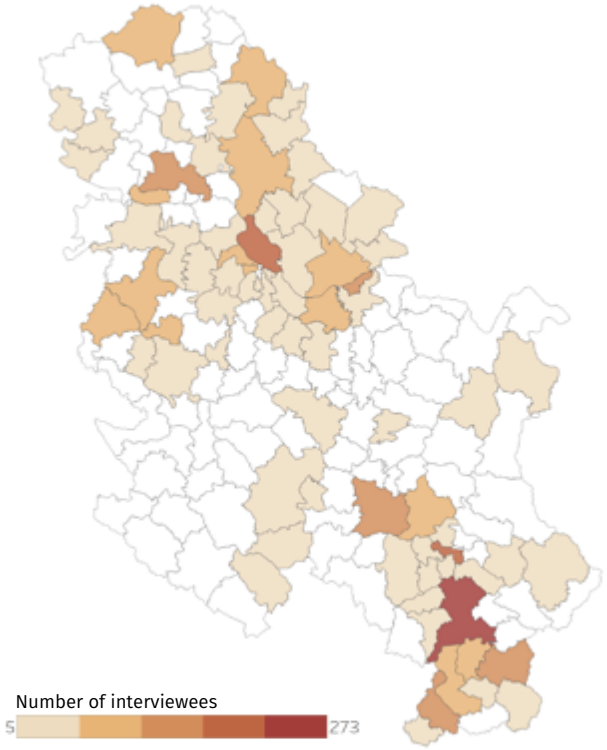
Map A.1. **Roma Population and Coverage of the 2017 Regional Roma Survey** (continued)

e. **Serbia**

Roma population (% of total population)



2017 Surveyed municipalities



Source: 2011 Population Census.
Note: Kosovo maps are not available.

Qualitative Research Study in Serbia

A qualitative study was designed as a follow-up and complement to the RRS in Serbia, sponsored by the Umbrella Facility for Gender Equality.[155] The aim of the qualitative research was to unpack the survey findings on the gender gap among marginalized Roma and neighboring non-Roma in Serbia and to assess the normative enablers and barriers faced by marginalized Roma and neighboring non-Roma men and women across three broad outcome themes: human and physical capital, access to livelihoods, and voice. This qualitative research was conducted through direct interviews and focus groups in five Roma settlements (two of which were covered in the pilot research). This scope surely does not exhaust the total diversity of the Roma population in Serbia, but it does constitute a representative sample illuminating social and economic disparities, living conditions, education, cultural traditions and geographic location, alongside the gender and age stratification of the adult respondents. In 13 focus groups and 29 direct interviews, a total of 94 respondents were interviewed in the following locations: Kamendin, an ethnically mixed settlement with apartment buildings in northwest Belgrade; Rakovica-selo (pilot), an ethnically mixed semiurban neighborhood on the outskirts of Belgrade; Makiš (pilot), a temporary container settlement hosting only Roma families; Novi Bečej, a small town in the Autonomous Province of Vojvodina, northern Serbia; and, in Vranje, a

155 The Umbrella Facility for Gender Equality is a multidonor trust fund dedicated to strengthening awareness, knowledge, and capacity in gender-informed policy making.

city and the administrative center of Pčinja District in southern Serbia, a neighborhood called Gornja Čaršija, which is almost exclusively inhabited by Roma.

Because the primary universe for the quantitative survey was all households in Roma settlements or areas of compact Roma population (referred to as marginalized Roma) and non-Roma communities in close proximity to the marginalized Roma, the qualitative study was designed to focus on a subset of the sample to inform and explain the gender-disaggregated findings of the survey.

A Tool for Monitoring Progress on Roma Inclusion: The Roma Coverage and Inequality Indexes

The Roma Coverage Index

Achieving universal coverage in basic services and economic opportunities, including quality basic service coverage among the Roma population, should be a target of Roma inclusion policies. As a result, the study team developed an index of indicators of essential service coverage and economic opportunities to track progress on key coverage or access indicators available from the 2011 and 2017 RRS rounds. Recently, similar composite indicators have been developed in the literature to track access to health care, human capital, or essential services, such as the index of essential health services (Hogan et al. 2017) and the human capital index (Kraay 2018), but none of them include access to education, health, housing, and economic opportunities; rather, they are focused on specific dimensions.

The aim of the Roma coverage index is to provide a snapshot of marginalized Roma relative to an ideal standard in selected fundamental outcome indicators in the five priority areas: education, labor markets, health, housing and access to essential services, and documentation. Therefore, the index helps evaluate countries based on outcomes rather than inputs and is useful in providing the most objective basis for discussing the underlying drivers.

To track progress in service coverage and economic opportunities, 20 indicators have been selected to form the index, which includes four or five from within each of the priority areas.[156] Indicator data on the six Western Balkan countries can be estimated using the 2011 and 2017 RRS rounds.[157] The index is computed using arithmetic means, and the same set of indicators is used to summarize inequalities between Roma and non-Roma based on an inequality index.

For each dimension or priority area, there is a relevant subindex, as follows:

- The education subindex measures access to education through five indicators: preprimary enrollment, compulsory-school (International Standard Classification of Education [ISCED] 1 and 2) enrollment and completion, upper-secondary completion, and tertiary education completion.

156 The indicators have been selected together with the UNDP based on the advice of the technical working group on Roma, which includes the DG NEAR Roma focal points and country desk officers, who provided feedback to refine the type of indicators needed in each priority area.

157 A repeater survey representative of marginalized Roma is necessary to track progress after 2017.

- The labor market subindex measures access to economic opportunities and includes four indicators: the labor force participation rate, the employment-to-population ratio, then informality rate, and the youth not in employment, education, or training (NEET) rate.[158]
- The health subindex measures access to essential health and health-related services and includes four indicators: health insurance coverage, the self-reported unmet need for medical care, use of preventive care services, and self-perceived health status.[159]
- The housing subindex measures access to essential services and the quality of housing and includes five indicators: access to electricity, piped water inside the dwelling, public sewerage or waste water tanks, waste collection, and overcrowding.
- The documentation subindex measures access to civil documents and includes two indicators: coverage of birth certificates and coverage of identity cards.

Table A.1 displays the five subindexes and the 20 indicators that compose them.

Table A.1. **Structure of the Roma Coverage and Inequality Indexes**

Subindex	*Indicators*
1. Education	1. Net preprimary enrollment rate (ages 3–5)
	2. Adjusted net compulsory education (ISCED 1 and 2) enrollment rate (ages 7–15)
	3. Completion rate in compulsory (ISCED 2) education (ages 18–21)
	4. Upper-secondary education completion rate (ages 22–25)
	5. Tertiary education completion rate (ages 26–29)
2. Labor markets	1. Labor force participation rate (ages 15–64)
	2. Employment-to-population ratio (ages 15–64)
	3. Informal employment (% of total employment)*
	4. Not in employment, education, or training (NEET) (ages 15–24)*
3. Health	1. Health insurance coverage (ages 16+)
	2. Self-reported unmet need for medical care (% of population ages 16+)*
	3. Self-perceived health (% of population ages 16+ reporting good or very good health)
	4. Use of preventive health care services (% of population ages 16+)
4. Housing	1. Electricity (% of population)
	2. Piped water inside the dwelling (% of population)
	3. Connection to public sewerage or waste water tank (% of population)
	4. Waste never collected (% of population)*
	5. Overcrowding rate (% of population)*
5. Documentation	1. Birth certificate (% of population)
	2. Identity card (% of population ages 16+)

* The complement of these indicators is used in the index.

These indicators were selected during joint consultations with DG NEAR and UNDP and followed three guiding principles. First, indicators must be feasible with current comparable data and should follow international standards whenever possible so they can be compared with national benchmarks. Second, they should be moderately comparable between the two survey years (despite changes in

158 The unemployment rate is not included because the employment-to-population ratio and the labor force participation rate are already included; by construction, the unemployment rate can be derived from these two indicators.

159 Health status is captured by a subjective indicator because other objective measures of health are not available from the RRS.

survey design and questionnaire).[160] Third, the measurement of the Roma index should not require data to be available in the same unit of analysis in all dimensions.[161] This is because the quality, frequency, and range of survey data on Roma are still lacking. Therefore, even if today the primary data source used for the construction of the coverage index is the RRS, alternative data sources (representative of the Roma population) can also be used in the future, so that the construction of the index is not necessarily restricted by the availability of all indicators in one multitopic survey.

Because the Roma coverage index is expressed in percentage rates, final scores can be roughly interpreted as a percentage reflecting the degree of effective access to services and economic opportunities in a given country relative to the ideal outcome. Service coverage and access to economic opportunities are measured on a scale of 0 to 100 percent (with 100 percent as the target), and therefore the Roma coverage index is presented on the same scale.

The following steps describe the rescaling of indicators and the choice of weights and aggregation in constructing the Roma coverage index.

First, indicators are transformed to measure access and not lack of access. Some of the indicators require specific construction or modification to be used in the index. This is particularly the case of the sign or the direction in the interpretation of the variable. In this case, the direction of all indicators included in a composite index needs to be homogenous. For the Roma coverage index, all variables would have a positive sign, that is, higher value would indicate greater proximity to a desirable situation. For example, the informality rate was converted to a formality rate, and so on.

Then, the simple average of the indicators is calculated within each subindex to create the subindex scores. The indicators are not normalized, and more weight is not assigned to the measures that display the largest variability or standard deviation, as is done in the global gender gap index (WEF 2013). Therefore, an indicator with a small variability or standard deviation has the same weight as an indicator with a large variability; so, countries that are significantly different from the regional mean are not necessarily penalized. Given that many changes over time are not statistically significant, penalizing indicators in which changes are not statistically significant over time was attempted. However, this leads to difficulties in the interpretation of the index for each year because the weights included information of the standard error of the indicator in both years. For these reasons, it was decided to arrive at a simple average that is easy to interpret, and, instead of accounting for statistical significance using weights, standard errors are bootstrapped for each subindex. For all subindexes, the lowest possible score is 0 (no access) and the highest possible score is 100 (full access).

The overall Roma coverage index score is calculated using the unweighted average of each subindex score. Each priority area is assumed to have the same weight, as is usually done in similar indexes. Like the subindex scores, this final value varies between 0 (no access) and 100 (full access), thus allowing for comparisons relative to ideal standards of coverage, in addition to relative country rankings. The access benchmarks remain fixed across time, allowing individual country progress to be tracked relative to an ideal standard of service coverage.

160 For a full discussion on comparability between survey rounds, see Appendix D.

161 This is a severe limitation of the multidimensional poverty index, the measurement of which reflects the joint distribution of deprivations and, as such, requires that all the dimensions be included in the same data source.

The Roma Inequality Index

The Roma inequality index is a composite index measuring ethnic disparities or inequality in absolute terms, and it provides a basis for robust cross-country and time series analysis.[162] To address the wide gap between Roma and their non-Roma neighbors and to leave no one behind, a focus on change in absolute inequality is more appropriate than the usual focus on relative inequality (Ravallion 2007).[163] Absolute inequality refers to the absolute difference between the indicators, and it measures the coverage gap between these groups, while relative inequality refers to the ratio of the indicators, but does not necessarily measure how wide the gap is between the groups. For instance, consider a situation in which access to health among Roma is less than among non-Roma, and it increased over time at the same rate; this situation represents a small gain for the disadvantaged group (Roma) and a larger gain for non-Roma in absolute terms. While relative inequality does not increase, absolute inequality does increase, reflecting the more inequitable status quo. This report also explores the factors driving changes in these absolute gaps using Blinder-Oaxaca decompositions for selected indicators.

The Roma inequality index is designed to measure ethnic-based gaps in access to essential services and economic opportunities.

The index ranks countries according to their proximity to ethnic equality rather than demonstrating the superiority of the marginalized Roma over other groups. The aim is to put the emphasis on whether the gap between marginalized Roma and their non-Roma neighbors narrows, rather than whether Roma are winning over non-Roma because non-Roma are likely to be a disadvantaged group as well. Hence, the index rewards countries that reach the point where outcomes among marginalized Roma equal those among non-Roma neighbors, but does not reward cases in which Roma are outperforming non-Roma and vice-versa. Thus, a country that has higher enrollment among Roma than non-Roma in upper-secondary school will score the same as a country in which enrollment among Roma and non-Roma is the same.

To construct the Roma inequality index, the steps are the same as in the construction of the Roma coverage index, except that now the goal is to capture a measure of distance (or gaps) between Roma and their non-Roma neighbors. These gaps are also truncated at the equality benchmark because the index captures ethnic equality rather than Roma empowerment. For all indicators, this is considered to be zero; therefore, the same score is assigned to a country that has reached full equality and to one in which Roma have surpassed non-Roma. This scale measures, for instance, how close Roma are to reaching parity with non-Roma, but does not reward or penalize countries for having a gap between Roma and non-Roma in the other direction. Intuitively, the scale penalizes the advantage of non-Roma over Roma and gives the highest points to absolute equality.[164] This scale appears more appropriate for the purposes here because it does not recompense countries for exceeding the equality benchmark.

162 The index is similar in spirit to the global gender gap index, but inequality is measured in absolute and not relative terms (see WEF 2013).
163 For a full discussion on the choice of inequality in absolute versus relative terms, see (Asada, Yukiko 2010); for health inequality, see (Hoy 2015).
164 This scale is also used in used in the global gender gap index (WEF 2013). An alternative scale penalizes (negative scale) countries for exhibiting inequalities in any direction.

Appendix B. **Core Indicators: Definitions and Comparability between 2011 and 2017**

Priority area	*Indicator*	*Indicator definition*	*Comparability*
Education	Net preprimary enrollment rate (ages 3–5)	The number of children ages 3–5 enrolled in preprimary, expressed as a percentage of the total population in that age-group (3–5)	The questions used in the two surveys to construct this indicator are not worded in the same way. While in 2011 the question refers to attendance in preprimary education directly for children ages 0–6, in 2017 the question refers to the primary form of care arrangement used for the child (0–6), where one option is "The child attends a day-care center, nursery, crèche, preschool, or kindergarten."
	Adjusted net compulsory education enrollment rate (ages 7–15)	Total number of students ages 7–15 who are enrolled in ISCED 1, ISCED 2, or ISCED 3 education, expressed as a percentage of the corresponding population ages 7–15	In 2011, the survey does not identify school enrollment. Therefore, we use two questions to construct a proxy for enrollment: one question refers to educational attainment (*highest attained education level*), and the other one to student status. We assume that those who are identified as students and have completed a specific educational level are currently attending one level above (e.g., those who completed upper basic or did not complete secondary and are still attending school, are presumed attending secondary level). To ensure comparability across time, the same approach is used in 2017, even though enrollment is directly identified in this round of the survey. As a robustness check, in 2017 we compare the proxy with the variable constructed using enrollment directly, and results are more or less consistent (i.e. in Bosnia and Herzegovina, compulsory enrollment varies from 70 to 71 percent, while in Albania, it varies from 62 percent to 64 percent).
	Completion rate in compulsory education (ages 18–21)	Percentage of population ages 18 to 21 who have completed compulsory education (ISCED levels 1 and 2)	Indicators are fully comparable in 2011 and 2017.
	Completion rate in upper-secondary education (ages 22–25)	Percentage of population ages 22 to 25 who have completed upper-secondary school	Indicators are fully comparable in 2011 and 2017.
	Completion rate in tertiary education (ages 26 to 29)	Percentage of population ages 26 –29 who have completed tertiary education (2011 ISCED levels 5–8)	Indicators are fully comparable in 2011 and 2017.
	Percentage of students attending segregated schools (ages 7–15)	Percentage of children ages 7–15 attending segregated schools out of children ages 7–15 who are attending school	Indicators are fully comparable in 2011 and 2017.

Appendix B. **Core Indicators** (continued)

Priority area	*Indicator*	*Indicator definition*	*Comparability*
Education	Percentage of students attending special schools (ages 7–15)	Percentage of children ages 7–15 attending special schools out of children ages 7–15 who are attending school	The questions used in the two surveys to construct this indicator are not worded in exactly the same way. In 2011, we identify enrollment in special schools using the question: "*Was the school he/she was/ is attending most of the time a special school for disabled?*". In 2017, we use the question "*Which education level are you currently attending?*". We then identify children enrolled in special schools as those respondents answering, "*Elementary special education*", or "*Secondary special education*", to this question.
Labor markets	Labor force participation rate (ages 15–64)	The proportion of the population ages 15–64 that is economically active (employed and unemployed)	The construction of this indicator is based on individuals considered to be employed or unemployed. Questions regarding employment are fully comparable between the two years (see comparability for employment-to-population ratio); questions regarding unemployment are not fully comparable (see comparability for unemployment rate (% of total labor force, ages 15–64).
	Employment-to-population ratio (ages 15–64)	The proportion of the population ages 15–64 that is employed	The employed comprise all persons of working-age (15–64) who: a) worked during the reference period (last week) in a paid work (in cash or in kind) for at least one hour; paid job may include wage or salary employment as well as profits or self-employment income; b) have a paid job or business but were temporarily absent during the reference period. This definition is consistent with the definition of the International Labour Organization. Questions are fully comparable among the 2011 and the 2017 surveys.

Appendix B. **Core Indicators** (continued)

Priority area	*Indicator*	*Indicator definition*	*Comparability*
Labor markets	Unemployment rate (% of total labor force, ages 15–64)	The number of people ages 15–64 who are unemployed expressed as a percentage of the population ages 15–64 that is in the labor force	The unemployed comprise all persons of working-age (15–64) who: a) were without work during the reference period, i.e. were not in paid employment or self-employment; b) were seeking work in the past 4 weeks; c) are currently available for work, i.e. were available for paid employment or self-employment in the next 2 weeks. The questions used in the two surveys to construct unemployment are worded in the same way except the question that allows us to identify whether the person is actively looking for a job in the reference period. In 2017, a list of activities for finding a job are included (i.e. looking at public announcement, newspapers, personal connections and friends, trying to start your own business or being in contact with employment agency but not for renewing registration) while in 2011 this list of possible activities is not included in the question. More importantly, in the 2011 survey, future starters, that is, persons who did not look for work but have a future labor market stake (made arrangements for a future job start) can be identified and are counted as unemployed. This definition is consistent with the definition of the International Labour Organization. In the 2017 survey, such individuals cannot be identified, meaning that fewer individuals are considered to be unemployed.
	Informal employment (% of total employment, ages 15–64)	The proportion of employed population ages 15–64 who have pension or health insurance for their job (paid for either by themselves or their employer)	Indicators are fully comparable in 2011 and 2017.
	NEET (15–24)	Proportion of young people (ages 15–24) who are not in employment, education, or training (NEET) out of the total population ages 15–24	Indicators are fully comparable in 2011 and 2017.
Health	Health insurance coverage (% of population ages 16+)	The proportion of the population ages 16+ that have access to health insurance out of the total population ages 16+	The question used to construct this indicator is the same across the two rounds of the survey. However, in 2011 the question is administered to a randomly selected adult (16+) within the household, while in 2017 it is asked to each member of the household. Sampling weights were constructed to compensate for the different probabilities of selection in the 2011 survey, which also implies lower precision of the estimates.

Appendix B. **Core Indicators** (continued)

Priority area	*Indicator*	*Indicator definition*	*Comparability*
Health	Self-reported unmet need for medical care (% of population ages 16+)	Percentage of people ages 16+ reporting that they have not had access to medical care when needed due to affordability, availability, or acceptability reasons	Self-reported unmet need for medical care is defined as not using health services when needed due to specific barriers (affordability (too expensive/not covered); availability (too far to travel/travel costs too high/waiting list), and acceptability (fear of doctors/refused care/prejudice toward Roma/lack of documentation). The questions used in 2011 and 2017 are somewhat comparable: the reasons for not using health services in 2017 can be multiple-choice answers, while in 2011 can only be single choice. In both years, the questions are asked to the randomly selected adult (aged 16+); sampling weights are used to compensate for the different probabilities of selection in both rounds of the survey.
	Use of preventive health care services (% of population ages 16+)	Share of persons ages 16 and over who have had healthcare preventive actions in the past 12 months, including a dental checkup, an x-ray, ultrasound or other scan, cholesterol test or heart check-up. This is consistent with the Eurostat definition.	Indicators are fully comparable in 2011 and 2017.
	Self-perceived health (% of population reporting good or very good health)	Share of persons ages 16 and over with very good or good self-perceived health. Self-perceived health expresses subjective assessment by the respondent of his/her health. Indicators based on this concept can be used to evaluate the general health status, health inequalities and health care needs at the population level. This is consistent with the Eurostat definition.	Indicators are fully comparable in 2011 and 2017.
Housing	Waste never collected (% of population)	Percentage of population living in a household where waste is never collected	Indicators are fully comparable in 2011 and 2017.
	Connection to public sewerage or waste water tank (% of population)	Percentage of population with connection to public sewerage or waste water tank	Indicators are fully comparable in 2011 and 2017.

Appendix B. **Core Indicators** (continued)

Priority area	*Indicator*	*Indicator definition*	*Comparability*
Housing	Percentage of population with access to piped water inside the dwelling	Percentage of population with access to piped water inside the dwelling	This indicator cannot be directly constructed in 201, since there is no question on *access* to piped water; instead, there is only information regarding whether piped water inside the dwelling is the main source of potable water. In 2017 we have information on access to piped water inside the dwelling as well as whether piped water inside the dwelling is the main source of potable water. Using 2017 data, we estimate the share of households among the Roma and non-Roma that have access to piped water inside the dwelling and also use it as their main source of potable water and construct a proxy for access in 2011 using the 2017 estimated ratios. This assumes that, conditioning on having access to piped water inside the dwelling, the probability of using piped water inside the dwelling as the main source of potable water is the same in 2011 as in 2017.
	Percentage of population with access to electricity	Percentage of population with access to electricity	Indicators are fully comparable between 2011 and 2017.
	Rooms per household member	Average number of rooms per household member (excluding kitchen, corridor, bathroom and any room rented out or used by another household)	Indicators are fully comparable between 2011 and 2017.
	Overcrowding rate (% of population)	The overcrowding rate is defined as the percentage of the population living in an overcrowded household. Following the Eurostat definition, a person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to: one room for the household; one room per couple in the household; one room for each single person ages 18 or more; one room per pair of single people of the same gender ages 12–17; one room for each single person ages 12–17 and not included in the previous category; one room per pair of children under 12 years of age. Kitchens, corridors, bathrooms or rooms rented out or used by other households are not counted as rooms.	Indicators are fully comparable between 2011 and 2017.

Appendix B. **Core Indicators** (continued)

Priority area	*Indicator*	*Indicator definition*	*Comparability*
Documentation	Percentage of population with birth certificate	Percentage of population with birth certificate	Indicators are fully comparable between 2011 and 2017. There is a subtle difference in the wording of the questions. The question in 2011 is "*Does s/he possess the following personal documents: 1. Birth certificate / registered in birth registry*", and the question in 2017 is "*Are you registered in birth register?*".
	Percentage of population with identify card (ages 16+)	Percentage of population reporting that they have an identify card (age 16+)	Indicators are fully comparable between 2011 and 2017.

Appendix C. **Regional Overview Tables**

Table C.1. **Regional Overview at a Glance, 2011**

Priority area	*Indicator*	*Roma*					*Non-Roma neighbors*					*Gap between Non-Roma neighbors and Roma*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Education	Net pre-primary enrollment rate (ages 3–5)	34	6	12	9	8	52	6	26	15	35	18	0	14	6	27
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	49	60	73	56	80	91	95	90	95	95	42	35	17	38	16
	Compulsory education completion rate (ages 18–21) (a)	23	44	57	34	53	85	92	89	94	100	61	48	32	60	47
	Upper secondary education completion rate (ages 22–25)	3	15	15	6	13	47	84	74	89	82	44	68	58	83	69
	Tertiary education completion rate (ages 26–29)	0.4	0	0	0	0.5	9	17	25	15	12	9	17	25	15	12
	Percentage of students attending majority Roma schools (ages 7–15) (b)	14	6	23	8	8	2	9	13	1	6	-12	3	-11	-8	-2
	Percentage of students attending special schools (ages 7–15) (b)	1	1	4	6	7	3	1	4	3	3	2	0	0	-3	-4
Labor markets	Labor force participation rate (ages 15–64)	54	42	49	49	51	55	49	51	61	60	2	7	2	12	8
	Employment to population ratio (ages 15–64)	42	18	23	28	26	46	34	37	43	44	4	16	14	15	18
	Unemployment rate (% of total labor force, ages 15–64) (b)	22	56	54	43	49	17	30	27	29	27	-5	-26	-27	-13	-22
	Informal employment (% of total employment) (b)	85	80	64	55	75	63	17	22	15	27	-22	-63	-42	-40	-48
	Not in employment, education, or training (NEET) (ages 15–24) (b)	66	76	70	69	67	35	30	36	42	29	-30	-46	-34	-28	-39

Table C.1. **Regional Overview at a Glance, 2011** (continued)

Priority area	*Indicator*	*Roma*					*Non-Roma neighbors*					*Gap between Non-Roma neighbors and Roma*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Health	Health insurance coverage (ages 16+)	33	70	92	89	93	54	95	97	99	94	21	26	4	10	1
	Self-reported unmet need for medical care (% of population ages 16+)(b)	54	39	33	11	31	32	22	19	5	20	-21	-17	-14	-6	-11
	Self-perceived health (% of population ages 16+ reporting good or very good health)	67	55	67	78	55	74	63	76	78	63	8	8	8	1	9
	Use of preventive health care services (% of population ages 16+)	43	46	58	39	59	57	63	71	61	68	13	17	13	22	9
Housing	Electricity (% of population)	94	83	97	91	84	96	98	95	99	98	2	15	-2	8	14
	Piped water inside the dwelling (% of population)	45	87	90	79	71	71	99	98	94	98	26	12	9	14	27
	Connection to public sewerage or waste water tank (% of population)	71	70	83	66	59	76	90	91	94	86	5	20	8	28	27
	Waste never collected (% of population) (b)	30	25	18	18	25	31	26	9	28	21	1	0	-8	10	-4
	Rooms per household member (c)	0.4	0.6	0.6	0.6	0.6	0.7	1.1	1.0	1.1	1.1	0.2	0.5	0.4	0.5	0.5
	Overcrowding rate (% of population) (b)	82	74	68	72	74	60	30	34	37	32	-23	-44	-33	-35	-42
Documentation	Birth certificate (% of population)	97	98	98	95	99	99	100	100	98	100	2	2	1	2	1
	Identity card (% of population ages 16+)	85	91	96	81	93	90	96	98	95	98	5	5	2	14	5

Source: World Bank estimates based on weighted 2011 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Color key: Dark green denotes the highest coverage and the lowest gap/inequality between Roma and non-Roma neighbors among all countries for each indicator. White denotes the lowest coverage and highest gap/inequality between Roma and non-Roma neighbors among all countries for each indicator. Not all differences between countries are statistically significant.
a. Compulsory education refers to ISCED 1 and 2.
b. Lower coverage for this indicator is desirable.
c. This indicator is calculated at the level of the head of household.

Table C.2. **Regional Overview at a Glance, 2017**

Priority area	*Indicator*	*Roma*						*Non-Roma neighbors*						*Gap between Non-Roma neighbors and Roma*					
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Education	Net pre-primary enrollment rate (ages 3–5)	33	3	10	21	9	14	64	2	27	36	28	17	31	-1	17	15	18	4
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	66	72	78	62	84	73	96	91	87	92	99	92	31	19	10	29	15	20
	Compulsory education completion rate (ages 18–21) (a)	43	42	70	34	67	62	98	94	93	97	96	95	54	52	23	63	29	33
	Upper secondary education completion rate (ages 22–25)	15	21	32	3	19	21	75	86	87	79	93	77	61	66	54	76	74	56
	Tertiary education completion rate (ages 26–29)	1	0	3	0	1	3	25	21	30	25	16	24	24	21	26	25	15	21
	Percentage of students attending majority Roma schools (ages 7–15) (b)	19	12	40	15	10	13	10	5	12	13	12	5	-9	-7	-28	-2	2	-8
	Percentage of students attending special schools (ages 7–15) (b)	1	0	3	1	2	2	1	0	6	2	0	2	1	0	4	1	-2	0
Labor markets	Labor force participation rate (ages 15–64)	40	25	43	19	34	26	42	40	48	41	52	29	1	15	5	22	18	3
	Employment to population ratio (ages 15–64)	18	11	22	15	22	13	26	29	39	38	44	20	8	18	17	23	22	7
	Unemployment rate (% of total labor force, ages 15–64) (b)	56	56	49	23	36	48	38	27	19	7	16	32	-18	-29	-31	-16	-20	-17
	Informal employment (% of total employment) (b)	62	61	38	58	64	70	22	15	16	29	14	46	-40	-47	-23	-29	-51	-24
	Not in employment, education, or training (NEET) (ages 15–24) (b)	76	82	67	78	62	69	37	43	27	33	33	40	-40	-39	-40	-45	-29	-30

Table C.2. **Regional Overview at a Glance, 2017** (continued)

Priority area	*Indicator*	*Roma*						*Non-Roma neighbors*						*Gap between Non-Roma neighbors and Roma*					
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Health	Health insurance coverage (ages 16+)	27	73	94	80	92	10	43	94	97	98	97	12	16	21	3	18	6	2
	Self-reported unmet need for medical care (% of population ages 16+)(b)	36	33	16	22	27	26	22	15	8	9	16	23	-14	-17	-8	-13	-11	-4
	Self-perceived health (% of population ages 16+ reporting good or very good health)	60	57	57	63	52	68	69	65	62	69	59	76	10	8	4	6	7	8
	Use of preventive health care services (% of population ages 16+)	44	49	55	48	58	54	67	66	71	79	71	63	24	17	16	31	13	9
Housing	Electricity (% of population)	84	90	93	92	88	89	94	98	97	98	98	97	10	8	4	6	10	8
	Piped water inside the dwelling (% of population)	46	87	91	73	80	84	89	96	97	95	97	97	43	10	6	23	16	12
	Connection to public sewerage or waste water tank (% of population)	62	68	84	55	65	75	76	80	93	84	80	91	14	12	9	29	14	15
	Waste never collected (% of population) (b)	6	19	5	21	22	8	3	7	2	19	15	2	-3	-12	-3	-2	-7	-7
	Rooms per household member (c)	0.7	0.7	0.8	0.5	0.8	0.6	1.1	1.3	1.0	1.2	1.3	0.8	0.5	0.6	0.3	0.6	0.5	0.2
	Overcrowding rate (% of population) (b)	66	65	61	78	65	71	30	21	29	40	22	51	-36	-44	-32	-37	-43	-20
Documen-tation	Birth certificate (% of population)	98	98	98	96	99	97	99	100	99	100	100	98	1	1	1	4	1	1
	Identity card (% of population ages 16+)	90	93	94	83	94	89	97	96	96	96	97	94	6	2	2	13	3	5

Source: World Bank estimates based on weighted 2011 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Color key: Dark green denotes the highest coverage and the lowest gap/inequality between Roma and non-Roma neighbors among all countries for each indicator. White denotes the lowest coverage and highest gap/inequality between Roma and non-Roma neighbors among all countries for each indicator. Not all differences between countries are statistically significant.
a. Compulsory education refers to ISCED 1 and 2.
b. Lower coverage for this indicator is desirable.
c. This indicator is calculated at the level of the head of household.

Table C.3. **Regional Overview at a Glance: Percentage Point Changes, 2011–17**

Priority area	*Indicator*	*Change in Roma coverage*					*Change in Non-Roma neighbor coverage*					*Change in gap between Non-Roma neighbors and Roma*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Education	Net pre-primary enrollment rate (ages 3–5)	-1	-3	-2	12	1	12	-4	0	21	-8	13	-1	3	9	-9
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	17	11	4	6	4	5	-5	-3	-3	3	-12	-16	-7	-9	-1
	Compulsory education completion rate (ages 18–21) (a)	20	-2	13	0	15	13	2	4	2	-4	-7	4	-9	2	-18
	Upper secondary education completion rate (ages 22–25)	11	5	17	-3	6	28	3	13	-9	10	17	-3	-4	-7	5
	Tertiary education completion rate (ages 26–29)	1	0	3	0	1	16	4	5	10	3	15	4	1	10	3
	Percentage of students attending majority Roma schools (ages 7–15) (b)	5	6	16	6	2	9	-4	-1	12	6	4	-10	-17	6	4
	Percentage of students attending special schools (ages 7–15) (b)	0	-1	-1	-5	-5	-1	-1	2	-1	-3	-1	0	4	4	1
Labor markets	Labor force participation rate (ages 15–64)	-13	-16	-6	-30	-17	-14	-9	-2	-20	-8	-1	8	3	10	9
	Employment to population ratio (ages 15–64)	-24	-7	-1	-13	-4	-20	-5	3	-5	0	4	2	3	8	4
	Unemployment rate (% of total labor force, ages 15–64) (b)	34	0	-4	-20	-13	21	-3	-9	-22	-11	-13	-3	-4	-2	2
	Informal employment (% of total employment) (b)	-23	-19	-26	4	-10	-41	-2	-6	15	-13	-18	16	20	11	-3
	Not in employment, education, or training (NEET) (ages 15–24) (b)	11	5	-2	9	-5	2	13	-9	-9	4	-9	7	-6	-17	9
Health	Health insurance coverage (ages 16+)	-6	3	2	-9	-1	-10	-1	0	0	4	-5	-4	-2	9	4
	Self-reported unmet need for medical care (% of population ages 16+)	-18	-6	-17	11	-4	-10	-7	-11	5	-4	8	0	6	-6	0
	Self-perceived health (% of population ages 16+ reporting good or very good health)	-7	2	-10	-15	-3	-5	2	-14	-9	-4	2	0	-4	6	-1
	Use of preventive health care services (% of population ages 16+)	0	3	-3	8	-1	10	2	0	18	3	10	-1	3	10	4

Table C.3. **Regional Overview at a Glance: Percentage Point Changes, 2011–17** (continued)

Priority area	*Indicator*	*Change in Roma coverage*					*Change in Non-Roma neighbor coverage*					*Change in gap between non-Roma neighbors and Roma*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Housing	Electricity (% of population)	-10	7	-3	1	4	-2	0	2	-1	0	8	-6	6	-2	-4
	Piped water inside the dwelling (% of population)	2	-1	1	-7	10	19	-3	-2	2	-1	17	-2	-2	9	-10
	Connection to public sewerage or waste water tank (% of population)	-9	-1	1	-10	7	0	-10	2	-10	-6	9	-8	0	1	-13
	Waste never collected (% of population) (b)	-24	-6	-12	3	-3	-28	-19	-7	-10	-6	-4	-13	5	-12	-3
	Rooms per household member (c)	0.2	0.1	0.1	-0.1	0.2	0.4	0.2	0.0	0.0	0.2	0.2	0.1	-0.1	0.1	0.1
	Overcrowding rate (% of population) (b)	-17	-9	-7	6	-10	-30	-9	-5	3	-10	-13	0	1	-2	0
Documentation	Birth certificate (% of population)	1	1	0	1	0	0	0	0	2	0	-1	-1	0	1	0
	Identity card (% of population ages 16+)	6	2	-2	2	1	7	0	-2	1	-1	1	-2	0	-1	-1

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Not all labor market indicators are strictly comparable between 2011 and 2017; for an assessment of comparability between the datasets for the two survey years, see Appendix D. Color key: denotes an improvement; denotes a worsening; and denotes no statistically significant change at the 10 percent level.
a. Compulsory education refers to ISCED 1 and 2.
b. A positive change in the gap for this indicator implies a reduction in inequality.
c. This indicator is calculated at the level of the head of household.

Table C.4. **Regional Overview at a Glance, Roma, by Sex, 2011**

Priority area	*Indicator*	*Roma females*					*Roma males*					*Roma gender gap*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Education	Net pre-primary enrollment rate (ages 3–5)	30	5	13	13	9	38	8	11	4	7	8	3	-2	-9	-2
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	49	59	72	57	80	49	62	74	55	80	0	3	2	-2	0
	Compulsory education completion rate (ages 18–21) (a)	22	43	53	28	45	25	45	60	41	61	3	2	7	13	16
	Upper secondary education completion rate (ages 22–25)	4	12	14	2	10	3	19	16	9	16	-1	6	2	7	6
	Tertiary education completion rate (ages 26–29)	0	0	0	0	1	1	0	0	0	0	1	0	0	0	-1
	Percentage of students attending majority Roma schools (ages 7–15) (b)	17	6	24	10	8	11	5	23	7	8	-6	-1	-1	-3	0
	Percentage of students attending special schools (ages 7–15) (b)	0	1	2	3	6	2	2	6	8	8	2	0	4	5	2
Labor markets	Labor force participation rate (ages 15–64)	37	26	35	27	38	71	57	63	71	65	33	31	28	43	28
	Employment to population ratio (ages 15–64)	25	5	11	9	12	60	31	34	48	40	35	25	24	39	28
	Unemployment rate (% of total labor force, ages 15–64) (b)	34	80	70	69	67	15	46	45	32	39	-18	-34	-24	-37	-28
	Informal employment (% of total employment) (b)	80	77	68	64	76	88	81	63	53	74	8	4	-6	-10	-1
	Not in employment, education, or training (NEET) (ages 15–24) (b)	80	84	79	85	78	49	69	61	55	57	-31	-15	-18	-30	-21
Health	Health insurance coverage (ages 16+)	35	74	94	88	95	28	65	90	91	88	-7	-9	-3	4	-7
	Self-reported unmet need for medical care (% of population ages 16+)	58	43	35	10	33	47	35	30	13	28	-11	-8	-5	3	-5
	Self-perceived health (% of population ages 16+ reporting good or very good health)	63	52	65	76	51	70	59	70	79	59	7	7	5	2	8
	Use of preventive health care services (% of population ages 16+)	43	53	63	44	60	44	39	52	34	57	1	-14	-11	-10	-4

Table C.4. **Regional Overview at a Glance, Roma, by Sex, 2011** (continued)

Priority area	*Indicator*	*Roma females*					*Roma males*					*Roma gender gap*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Housing	Electricity (% of population)	94	83	97	91	84	93	84	97	90	83	0	1	0	-1	-1
	Piped water inside the dwelling (% of population)	46	87	89	79	70	44	87	90	80	72	-2	0	1	1	2
	Connection to public sewerage or waste water tank (% of population)	71	69	83	65	59	71	70	82	66	59	1	0	0	1	0
	Waste never collected (% of population) (b)	30	25	18	18	25	30	25	17	19	24	0	1	-1	1	-1
	Rooms per household member (c)	0.4	0.6	0.7	0.8	0.7	0.4	0.6	0.6	0.6	0.6	0.0	0.0	-0.1	-0.2	-0.2
	Overcrowding rate (% of population) (b)	84	74	67	72	74	81	74	68	71	75	-2	0	0	-1	0
Documentation	Birth certificate (% of population)	97	97	98	94	99	97	98	99	96	99	0	0	0	2	0
	Identity card (% of population ages 16+)	86	91	95	76	94	84	92	97	86	93	-2	1	2	10	-1

Source: World Bank estimates based on weighted 2011 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Shaded cells refer to gaps that are statistically significant at the 10 percent level.
a. Compulsory education refers to ISCED 1 and 2.
b. Higher gaps between Roma and non-Roma for this indicator are desirable.
c. This indicator is calculated at the level of the head of household.

Table C.5. **Regional Overview at a Glance, Non-Roma, by Sex, 2011**

Priority area	*Indicator*	*Non-Roma neighbor females*					*Non-Roma neighbor males*					*Non-Roma neighbor gender gap*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Education	Net pre-primary enrollment rate (ages 3–5)	55	10	35	20	41	50	0	15	13	29	-6	-10	-20	-8	-12
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	93	99	86	92	96	90	91	94	97	94	-3	-7	7	5	-2
	Compulsory education completion rate (ages 18–21) (a)	87	94	89	98	100	82	89	90	91	100	-4	-5	1	-7	0
	Upper secondary education completion rate (ages 22–25)	53	84	65	88	85	43	83	83	90	79	-10	-1	18	2	-6
	Tertiary education completion rate (ages 26–29)	14	19	34	21	12	5	15	11	8	13	-9	-4	-23	-13	1
	Percentage of students attending majority Roma schools (ages 7–15) (b)	0	11	13	0	5	3	7	12	1	8	3	-4	0	1	3
	Percentage of students attending special schools (ages 7–15) (b)	4	2	3	1	2	2	0	5	4	5	-2	-2	2	3	4
Labor markets	Labor force participation rate (ages 15–64)	40	36	39	50	50	70	62	63	74	69	31	26	23	24	19
	Employment to population ratio (ages 15–64)	31	24	26	32	32	60	45	49	55	55	29	22	23	23	23
	Unemployment rate (% of total labor force, ages 15–64) (b)	22	35	34	35	37	15	28	22	25	20	-7	-7	-12	-9	-17
	Informal employment (% of total employment) (b)	55	17	17	10	22	67	18	25	18	29	12	0	8	8	7
	Not in employment, education, or training (NEET) (ages 15–24) (b)	44	30	42	41	35	26	30	29	42	23	-18	0	-14	1	-12
Health	Health insurance coverage (ages 16+)	52	94	97	100	96	57	97	96	98	91	5	2	-1	-2	-6
	Self-reported unmet need for medical care (% of population ages 16+)	34	24	21	5	23	29	20	16	5	17	-5	-5	-5	1	-6
	Self-perceived health (% of population ages 16+ reporting good or very good health)	70	61	73	76	59	79	65	79	80	67	10	5	6	4	8
	Use of preventive health care services (% of population ages 16+)	56	69	77	68	72	59	56	63	52	63	3	-13	-13	-16	-9

Table C.5. **Regional Overview at a Glance, Non-Roma, by Sex, 2011** (continued)

Priority area	*Indicator*	*Non-Roma neighbor females*					*Non-Roma neighbor males*					*Non-Roma neighbor gender gap*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Housing	Electricity (% of population)	96	98	95	99	98	95	98	94	99	98	0	0	0	0	0
	Piped water inside the dwelling (% of population)	71	99	99	94	98	70	99	98	93	98	-1	0	-1	-1	0
	Connection to public sewerage or waste water tank (% of population)	78	90	91	94	87	75	90	90	94	85	-3	0	-1	0	-2
	Waste never collected (% of population) (b)	31	27	9	28	21	31	24	10	29	21	0	-3	1	0	0
	Rooms per household member (c)	0.9	1.2	1.3	1.3	1.3	0.6	1.0	1.0	1.1	1.0	0.0	0.0	-0.1	-0.2	-0.2
	Overcrowding rate (% of population) (b)	60	30	36	37	33	59	30	33	36	31	0	0	-3	-1	-2
Documentation	Birth certificate (% of population)	99	100	100	98	100	99	100	99	97	100	0	0	0	-1	0
	Identity card (% of population ages 16+)	88	97	98	95	98	92	95	98	94	98	3	-1	0	-1	0

Source: World Bank estimates based on weighted 2011 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Shaded cells refer to gaps that are statistically significant at the 10 percent level.
a. Compulsory education refers to ISCED levels 1 and 2.
b. Higher gaps between Roma and non-Roma for this indicator are desirable.
c. This indicator is calculated at the level of the head of household.

Table C.6. **Regional Overview at a Glance, Roma, by Sex, 2017**

Priority area	*Indicator*	*Roma females*						*Roma males*						*Roma gender gap*					
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Education	Net pre-primary enrollment rate (ages 3–5)	30	1	9	19	8	12	35	6	11	23	10	15	4	5	2	5	2	3
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	66	70	77	61	85	72	66	73	78	63	83	74	0	2	1	2	-3	2
	Compulsory education completion rate (ages 18–21) (a)	39	36	63	30	63	55	47	50	77	38	72	67	8	14	14	7	9	12
	Upper secondary education completion rate (ages 22–25)	14	18	32	2	9	15	15	23	33	4	25	27	1	4	1	2	16	12
	Tertiary education completion rate (ages 26–29)	1	0	4	0	2	3	2	0	2	0	0	2	1	0	-2	0	-2	0
	Percentage of students attending majority Roma schools (ages 7–15) (b)	14	15	32	15	9	15	23	9	46	15	12	12	9	-6	14	0	3	-3
	Percentage of students attending special schools (ages 7–15) (b)	1	0	2	0	1	2	1	0	3	1	4	2	0	0	1	0	2	1
Labor markets	Labor force participation rate (ages 15–64)	29	13	30	5	19	9	51	38	56	33	49	42	23	25	25	28	30	33
	Employment to population ratio (ages 15–64)	11	3	13	3	11	4	24	19	31	26	33	22	13	15	18	23	22	18
	Unemployment rate (% of total labor force, ages 15–64) (b)	63	73	58	33	45	53	53	51	45	21	32	47	-10	-22	-13	-12	-13	-5
	Informal employment (% of total employment) (b)	47	57	31	73	51	43	69	62	41	57	69	75	22	5	11	-16	17	31
	Not in employment, education, or training (NEET) (ages 15–24) (b)	86	86	75	88	75	77	67	77	60	70	51	63	-20	-10	-15	-18	-24	-14

Table C.6. **Regional Overview at a Glance, Roma, by Sex, 2017** (continued)

Priority area	*Indicator*	*Roma females*						*Roma males*						*Roma gender gap*					
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Health	Health insurance coverage (ages 16+)	28	74	95	78	92	10	26	72	93	82	92	10	-2	-2	-2	3	-1	0
	Self-reported unmet need for medical care (% of population ages 16+)	37	40	22	27	30	27	34	24	11	18	23	25	-3	-16	-11	-9	-7	-2
	Self-perceived health (% of population ages 16+ reporting good or very good health)	57	56	56	60	47	67	63	59	59	65	58	70	6	3	3	5	11	3
	Use of preventive health care services (% of population ages 16+)	48	51	60	48	64	55	39	47	50	47	52	54	-9	-3	-10	-2	-12	-2
Housing	Electricity (% of population)	82	90	94	92	88	89	85	90	93	92	87	89	3	0	-1	1	0	0
	Piped water inside the dwelling (% of population)	46	87	91	73	81	84	47	86	90	73	80	85	2	-1	-2	0	-2	1
	Connection to public sewerage or waste water tank (% of population)	62	69	84	55	66	75	63	68	83	56	64	75	1	-1	-1	1	-2	0
	Waste never collected (% of population) (b)	6	20	5	20	21	9	5	18	6	21	24	8	-1	-1	0	1	3	-2
	Rooms per household member (c)	0.9	0.8	1.0	0.6	0.9	0.8	0.6	0.7	0.7	0.5	0.7	0.6	-0.2	-0.1	-0.3	-0.1	-0.2	-0.1
	Overcrowding rate (% of population) (b)	65	64	61	77	66	71	66	66	60	78	64	71	1	2	-1	1	-2	0
Documen-tation	Birth certificate (% of population)	98	98	98	96	99	97	98	99	99	97	99	97	0	1	1	0	0	0
	Identity card (% of population ages 16+)	91	94	95	81	94	88	90	93	94	85	94	91	-1	0	-1	4	0	3

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Shaded cells refer to gaps that are statistically significant at the 10 percent level.
a. Compulsory education refers to ISCED 1 and 2.
b. Wider gaps between Roma and non-Roma for this indicator are desirable.
c. This indicator is calculated at the level of the head of household.

Table C.7. **Regional Overview at a Glance, Non-Roma Neighbors, by Sex, 2017**

Priority area	*Indicator*	*Non-Roma neighbor females*						*Non-Roma neighbor males*						*Non-Roma neighbor gender gap*					
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Education	Net pre-primary enrollment rate (ages 3–5)	68	0	33	30	39	5	56	4	21	41	19	27	-12	4	-12	11	-20	22
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	96	93	81	92	99	90	97	88	94	91	98	95	1	-5	13	-2	-1	5
	Compulsory education completion rate (ages 18–21) (a)	96	94	96	96	96	94	100	96	91	98	97	96	4	2	-6	2	1	2
	Upper secondary education completion rate (ages 22–25)	72	82	88	83	95	71	77	91	86	77	89	83	6	9	-2	-6	-6	12
	Tertiary education completion rate (ages 26–29)	37	23	35	32	26	33	12	18	26	17	6	17	-25	-6	-9	-15	-19	-16
	Percentage of students attending majority Roma schools (ages 7–15) (b)	14	6	12	12	4	3	8	5	12	14	18	7	-6	0	0	2	14	4
	Percentage of students attending special schools (ages 7–15) (b)	3	0	5	3	0	1	0	0	8	0	0	2	-3	0	3	-3	0	1
Labor markets	Labor force participation rate (ages 15–64)	34	27	36	28	42	13	49	56	60	55	63	45	15	29	24	28	21	32
	Employment to population ratio (ages 15–64)	21	18	26	26	35	6	30	42	52	51	53	32	9	24	26	25	18	26
	Unemployment rate (% of total labor force, ages 15–64) (b)	37	32	26	6	16	49	39	25	14	7	16	27	1	-7	-12	1	1	-22
	Informal employment (% of total employment) (b)	11	12	10	27	11	27	30	17	19	30	16	49	19	5	9	3	5	22
	Not in employment, education, or training (NEET) (ages 15–24) (b)	26	41	27	37	31	46	46	45	27	30	36	35	20	3	0	-7	6	-11

Table C.7. **Regional Overview at a Glance, Non-Roma Neighbors, by Sex, 2017** (continued)

Priority area	*Indicator*	*Non-Roma neighbor females*						*Non-Roma neighbor males*						*Non-Roma neighbor gender gap*					
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Health	Health insurance coverage (ages 16+)	43	95	97	98	99	10	44	94	97	98	96	13	0	-2	0	0	-3	3
	Self-reported unmet need for medical care (% of population ages 16+)	22	16	11	11	20	28	22	15	5	7	12	17	0	-1	-6	-4	-8	-11
	Self-perceived health (% of population ages 16+ reporting good or very good health)	67	64	61	66	56	71	72	67	62	73	63	81	5	3	1	7	8	10
	Use of preventive health care services (% of population ages 16+)	65	74	76	81	82	65	69	57	67	77	59	62	4	-17	-10	-4	-23	-3
Housing	Electricity (% of population)	93	99	97	98	98	97	95	98	97	98	97	97	1	-1	0	0	-1	-1
	Piped water inside the dwelling (% of population)	89	97	97	95	98	97	90	96	97	96	95	96	1	-1	0	0	-3	-1
	Connection to public sewerage or waste water tank (% of population)	75	81	92	84	80	91	78	80	93	84	79	91	3	-1	1	0	-1	0
	Waste never collected (% of population) (b)	2	6	2	19	14	2	3	7	2	18	16	2	0	1	0	-1	1	-1
	Rooms per household member (c)	1.2	1.5	1.3	1.3	1.6	0.8	1.1	1.2	1.0	1.1	1.1	0.8	-0.1	-0.3	-0.4	-0.2	-0.5	0.0
	Overcrowding rate (% of population) (b)	32	23	31	41	22	53	27	20	26	40	23	49	-6	-3	-5	-1	1	-4
Documen-tation	Birth certificate (% of population)	99	100	99	100	100	98	100	100	100	100	100	98	1	0	1	0	0	0
	Identity card (% of population ages 16+)	96	96	96	96	97	95	98	96	97	96	98	94	2	-1	1	0	1	-1

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Shaded cells refer to gaps that are statistically significant at the 10 percent level.
a. Compulsory education refers to ISCED levels 1 and 2.
b. Higher gaps between Roma and non-Roma for this indicator are desirable.
c. This indicator is calculated at the level of the head of household.

Table C.8. **Regional Overview at a Glance, Roma, Percentage Point Change, by Sex, 2011–17**

Priority area	*Indicator*	*Change in Roma female coverage*					*Change in Roma male coverage*					*Change in Roma gender gap*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Education	Net pre-primary enrollment rate (ages 3–5)	1	-4	-4	5	-1	-3	-2	0	19	3	-3	2	4	13	4
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	17	12	5	4	6	17	11	4	8	3	0	-1	-1	5	-2
	Compulsory education completion rate (ages 18–21) (a)	17	-7	10	3	18	23	5	16	-3	11	6	12	7	-6	-7
	Upper secondary education completion rate (ages 22–25)	10	6	17	0	-1	12	4	17	-5	9	2	-2	0	-4	10
	Tertiary education completion rate (ages 26–29)	1	0	4	0	1	1	0	2	0	0	0	0	-2	0	-1
	Percentage of students attending majority Roma schools (ages 7–15) (b)	-2	9	8	5	1	12	4	23	8	4	14	-5	15	3	3
	Percentage of students attending special schools (ages 7–15) (b)	1	-1	0	-2	-5	-1	-2	-3	-8	-4	-2	-1	-3	-5	1
Labor market	Labor force participation rate (ages 15–64)	-8	-13	-4	-22	-18	-19	-19	-7	-38	-16	-11	-6	-2	-15	2
	Employment to population ratio (ages 15–64)	-14	-2	2	-5	-2	-35	-12	-4	-22	-7	-21	-10	-6	-17	-5
	Unemployment rate (% of total labor force, ages 15–64) (b)	29	-7	-12	-36	-22	37	4	0	-11	-6	8	11	12	25	16
	Informal employment (% of total employment) (b)	-33	-20	-38	9	-24	-19	-19	-21	3	-6	15	2	16	-6	18
	Not in employment, education, or training (NEET) (ages 15–24) (b)	6	3	-4	3	-3	18	8	-1	15	-6	12	5	4	12	-3
Health	Health insurance coverage (ages 16+)	-7	0	2	-9	-3	-2	7	3	-10	3	4	7	1	0	6
	Self-reported unmet need for medical care (% of population ages 16+)	-20	-3	-13	17	-3	-12	-11	-19	5	-4	8	-7	-6	-11	-2
	Self-perceived health (% of population ages 16+ reporting good or very good health)	-7	4	-9	-16	-4	-8	0	-11	-13	-1	-1	-4	-2	3	3
	Use of preventive health care services (% of population ages 16+)	5	-2	-2	5	3	-5	8	-2	13	-5	-10	10	0	8	-8

Table C.8. **Regional Overview at a Glance, Roma, Percentage Point Change, by Sex, 2011–17** (continued)

Priority area	*Indicator*	*Change in Roma female coverage*					*Change in Roma male coverage*					*Change in Roma gender gap*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Housing	Electricity (% of population)	-11	7	-3	0	4	-8	6	-4	2	4	3	-1	-1	2	0
	Piped water inside the dwelling (% of population)	0	0	2	-6	12	3	-1	0	-7	8	4	-1	-3	-1	-4
	Connection to public sewerage or waste water tank (% of population)	-9	-1	2	-11	7	-8	-2	1	-10	6	1	-1	-1	0	-2
	Waste never collected (% of population) (b)	-24	-5	-13	2	-5	-25	-7	-12	3	0	-1	-2	2	0	5
	Rooms per household member (c)	0.4	0.2	0.3	-0.2	0.2	0.2	0.1	0.1	-0.1	0.2	-0.3	0.0	-0.2	0.1	0.0
	Overcrowding rate (% of population) (b)	-18	-10	-6	5	-9	-15	-7	-7	7	-10	4	3	-1	2	-2
Documen-tation	Birth certificate (% of population)	1	1	0	2	0	1	1	0	0	0	0	0	1	-1	0
	Identity card (% of population ages 16+)	5	3	0	4	0	6	1	-3	-1	1	1	-1	-3	-6	1

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Not all labor market indicators are strictly comparable between 2011 and 2017; for an assessment of comparability between the datasets for the two survey years, see Appendix D. Color key: denotes an improvement; denotes a worsening; and denotes no statistically significant change at the 10 percent level.
a. Compulsory education refers to ISCED 1 and 2.
b. A positive change in the gap for this indicator implies a reduction in inequality.
c. This indicator is calculated at the level of the head of household.

Table C.9. **Regional Overview at a Glance, Non-Roma Neighbors, Percentage Point Change, by Sex, 2011–17**

Priority area	*Indicator*	*Change in Non-Roma neighbor female coverage*					*Change in Non-Roma neighbor male coverage*					*Change in Non-Roma neighbor gender gap*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Education	Net pre-primary enrollment rate (ages 3–5)	13	-10	-2	10	-1	7	4	6	28	-10	-6	14	8	18	-8
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	3	-6	-5	0	3	7	-3	1	-7	4	4	2	6	-7	1
	Compulsory education completion rate (ages 18–21) (a)	9	-1	8	-2	-4	18	6	1	7	-3	9	7	-6	9	1
	Upper secondary education completion rate (ages 22–25)	19	-2	23	-5	10	35	8	3	-13	10	16	9	-21	-8	0
	Tertiary education completion rate (ages 26–29)	23	5	1	11	14	7	3	15	9	-7	-16	-2	14	-2	-20
	Percentage of students attending majority Roma schools (ages 7–15) (b)	14	-5	-1	12	0	5	-2	-1	12	11	-9	3	0	1	11
	Percentage of students attending special schools (ages 7–15) (b)	-1	-2	2	2	-2	-2	0	3	-4	-5	-1	2	1	-6	-4
Labor market	Labor force participation rate (ages 15–64)	-5	-10	-3	-22	-9	-21	-7	-2	-19	-6	-16	3	1	3	3
	Employment to population ratio (ages 15–64)	-9	-6	1	-7	3	-30	-3	3	-4	-2	-20	2	3	2	-6
	Unemployment rate (% of total labor force, ages 15–64) (b)	15	-3	-8	-28	-21	24	-3	-8	-18	-4	8	0	0	10	17
	Informal employment (% of total employment) (b)	-44	-6	-7	17	-12	-37	-1	-6	13	-13	7	5	2	-5	-2
	Not in employment, education, or training (NEET) (ages 15–24) (b)	-18	11	-15	-4	-4	20	15	-2	-12	13	38	3	14	-8	18
Health	Health insurance coverage (ages 16+)	-9	1	0	-1	3	-14	-3	0	1	5	-5	-4	0	2	3
	Self-reported unmet need for medical care (% of population ages 16+)	-12	-9	-10	7	-3	-6	-5	-11	2	-5	5	4	-1	-5	-2
	Self-perceived health (% of population ages 16+ reporting good or very good health)	-3	3	-12	-10	-4	-7	2	-17	-7	-4	-4	-2	-5	3	0
	Use of preventive health care services (% of population ages 16+)	9	4	0	12	10	11	1	3	25	-4	1	-4	4	12	-14

Table C.9. **Regional Overview at a Glance, Non-Roma Neighbors, Percentage Point Change, by Sex** (continued)

Priority area	*Indicator*	*Change in Non-Roma neighbor female coverage*					*Change in Non-Roma neighbor male coverage*					*Change in Non-Roma neighbor gender gap*				
		ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Housing	Electricity (% of population)	-2	0	2	-1	0	-1	0	3	-1	-1	2	0	1	0	-1
	Piped water inside the dwelling (% of population)	18	-2	-2	1	0	19	-3	-1	2	-2	1	-1	0	1	-3
	Connection to public sewerage or waste water tank (% of population)	-3	-9	1	-10	-7	3	-10	3	-9	-6	6	-1	2	0	1
	Waste never collected (% of population) (b)	-28	-20	-6	-9	-6	-28	-17	-8	-10	-5	0	3	-1	-1	1
	Rooms per household member (c)	0.3	0.3	0.1	0.0	0.4	0.5	0.2	0.0	0.0	0.1	0.2	-0.1	-0.1	0.0	-0.2
	Overcrowding rate (% of population) (b)	-27	-7	-4	3	-11	-33	-10	-6	4	-9	-5	-3	-2	0	2
Documen-tation	Birth certificate (% of population)	0	0	-1	2	0	1	0	0	3	0	1	0	1	1	0
	Identity card (% of population ages 16+)	8	0	-2	1	-1	6	0	-2	1	0	-2	1	0	0	1

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Not all labor market indicators are strictly comparable between 2011 and 2017; for an assessment of comparability between the datasets for the two survey years, see Appendix D. Color key: denotes an improvement; denotes a worsening; and denotes no statistically significant change at the 10 percent level.
a. Compulsory education refers to ISCED 1 and 2.
b. A positive change in the gap for this indicator implies a reduction in inequality.
c. This indicator is calculated at the level of the head of household.

Appendix D. **Robustness Checks to Assess the Quality and Validity of Core Indicators from the Regional Roma Survey, 2011 and 2017**

To evaluate the comparability of the results of the Regional Roma Survey (RRS) between the 2011 and 2017 rounds, a preliminary analysis of methodological changes has been carried out by the World Bank, as well as robustness checks to assess the quality and validity of core indicators from the 2011 and 2017 surveys, including through a comparison with other data sources.

The Quality of Survey Data and Survey Methodological Changes

The methodological differences between the 2011 and 2017 rounds of the RRS, including changes in the questionnaire and in the sampling frames and methodology that may lead to comparability issues across the survey rounds, need to be carefully considered.

a) Changes in the Questionnaire

Appendix B summarizes the comparability of the core indicators in 2011 versus 2017. Some indicators are fully comparable, and some are somewhat comparable. During the study, adjustments were made under certain assumptions to enhance comparability.

b) Changes in Sampling Frames

In 2017, because of the availability of more recent frames, different frames were used, except in North Macedonia, where the latest frame available is the 2002 census. The total Roma population enumerated in the new sampling frames and the distribution of Roma across survey settlements differ from the previous estimates.

In Montenegro, in addition to the 2008 census of the Ashkali, Egyptian, and Roma populations living in municipalities (used as a frame in 2011), the 2011 census data on administrative settlements were also used, mostly because they covered a large number of Roma. Because the census of the Ashkali, Egyptian, and Roma populations is considered the more reliable source, it was used as basis for the allocation of the sample across municipalities. Because the municipality populations can be quite large, the indicator showing the share of Roma within the total population was not useful in identifying exact the areas where Roma live. To be able to narrow the locations where Roma live, the settlement data from the 2011 census was used. As a result, in 2017, the coverage increased to 95 percent of the Roma enumerated in the 2011 census (Table D.1. and Table D.2.).

Table D.1. **Sampling Data Sources and Coverage, by Country, RRS Round, 2011**

Country	*Source of data for the sampling frame*	*Total number of Roma population (official)*	*Roma population (source for sampling frame), number*	*Total Roma population included in sampling frame*	*Roma population included in sampling frame, %*	*Total Roma population covered*	*Coverage of targeted population, %*
		(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Albania	Estimates of Amaro Drom, Roma NGO, Albania. Data provided by UNDP Albania		40,478	40,478	100	21,436	53
Bosnia and Herzegovina	Results of the process of registration of Roma and Roma households, 2009–10, Ministry of Human Rights and Refugees	16,771	16,771	16,771	100	7,066	42
North Macedonia	2002 census data, State Statistical Office	53,879	53,879	47,403	88	25,807	54
Montenegro	2008 census of RAE population, Statistical Office of Montenegro	6,893	6,893	6,893	100	3,874	56
Serbia	2002 census data, Statistical Office of the Republic of Serbia	108,193	108,193	95,046	88	39,798	42

Note: (1) includes the total number of all identified Roma in the census. (2) includes the number of Roma available in the sampling frame. (3) includes the number of Roma included in the sampling frame (marginalized Roma). (4) includes Roma included in the sampling frame as a share of the total population available in the sampling frame. (5) the total population covered by the survey (sum of weights). In the case of Montenegro, estimate (5) varies significantly from (3) because of the use of two sampling frames. (6) total Roma population covered in the survey as a share of the targeted population (marginalized Roma). NGO = nongovernmental organization. RAE = Roma, Ashkali, and Egyptian.

Table D.2. **Sampling Data Sources and Coverage, By Country, RRS Round, 2017**

Country	*Source of data for the sampling frame*	*Roma population (official), total*	*Roma population (source for sampling frame), total*	*Total Roma population included in sampling frame*	*Roma population included in sampling frame, %*	*Total Roma population covered*	*Coverage of targeted population, %*
		(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Albania	2011 Roma NGO data	8,301	40,430	39,426	98	40,555	103
Bosnia and Herzegovina	2013 census, Statistical Office of Bosnia and Herzegovina	12,583	12,479	9,608	77	9,604	100
North Macedonia	2002 census data, State Statistical Office	53,879	53,879	51,354	95	51,425	100
Montenegro	2008 census of RAE and 2011 census data, Statistical Office of Montenegro	8,305	6,224	5,904	95	9,869	167
Serbia	2011 census data, Statistical Office of the Republic of Serbia	147,604	144,553	111,567	77	111,559	100

Table D.2. **Sampling Data Sources and Coverage, By Country, RRS Round, 2017** (continued)

		Roma population (official), total	*Roma population (source for sampling frame), total*	*Total Roma population included in sampling frame*	*Roma population included in sampling frame, %*	*Total Roma population covered*	*Coverage of targeted population, %*
		(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Kosovo	2011 census data, Kosovo National Statistics Office	35,784	35,784	29,343	82	29,543	101

Note: (1) includes total number of all identified Roma in the census; includes Roma, Ashkali, and Egyptians (RAE), except in Albania, where the frame was not the census. (2) includes the Roma population available in the sampling frame (marginalized Roma); the total number of Roma in Bosnia and Herzegovina in the sampling frame is slightly below the official number. (3) includes the number of Roma included in the sampling frame. (4) includes Roma included in the sampling frame as a share of the total population available in the sampling frame. (5) total population covered by the survey (sum of weights). In the case of Montenegro, estimate (5) varies significantly from (3) because of the use of two sampling frames. NGO = nongovernmental organization.

c) Changes in the Sampling Methodology

The 2011 survey round sampled households only in clusters with a Roma concentration of more than 40 percent. For simplicity, Roma in areas of higher concentration are referred to as Roma clusters. In the 2017 RRS round, the targeted population included not only Roma living in Roma clusters, but also Roma living in areas of lower concentration (between 10 percent and 40 percent). Table D.3 shows the share of individuals and households in Roma cluster areas by country according to the 2017 sample (unweighted). Depending on the country, about 50 percent of the sample is composed of Roma clusters. In theory, this sample should be more readily comparable to the 2011 sample because it is believed that Roma who live in more highly concentrated areas tend to have less access to services and employment.

Table D.3. **Individuals and Households in the 2017 RRS Sample Belonging to Roma Clusters (Areas with 40 Percent Concentration of Roma or Higher), %**

	ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Individuals						
Roma	50	46	52	57	49	64
Non-Roma	47	45	52	55	48	65
Households						
Roma	50	43	55	56	48	62
Non-Roma	48	41	50	54	47	62

Source: World Bank estimates based on unweighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

d) Old Sampling Frame (North Macedonia)

In North Macedonia, there are indications of population changes since the 2002 population census (the most recent census), the sampling frame of the RRS. The World Bank bilateral migration matrices show that 179,000 people emigrated from North Macedonia in 2010–13. (The citizen population of North Macedonia was around 2 million according to the 2002 census.) Emigration, particularly Roma emigration, may be more extensive than estimated.

No alternative sampling frames are available for North Macedonia. Given that updating the old census frame is not yet planned in the country, one option is to update the frame only in target areas with different growth patterns and demographic shifts. If there is no possibility to adjust for these high

growth clusters, there may be underrepresentation of areas with small number of households in the census that subsequently grew appreciably. If the characteristics of the persons living in these high growth areas are different relative to people living in other, more stable neighborhoods, then the estimates may be biased.

This bias may already be correctible by the State Statistical Office through a cluster listing operation. If the number in the sampling frame is different from the number in the presurvey listing, the design loses in efficiency, but does not become biased. The estimates may therefore exhibit larger standard errors rather than bias. Because changes are being examined over time, bias is more of a concern than efficiency.

Weighting Procedures

Weighting is one of the key stages of the survey, critical to ensuring the correct representation of the survey population in the survey results. On this survey, the weighting procedures play an even more important role because the survey population is considered hard to reach, and the weighting procedures need to compensate for the uneven probabilities of being included in the survey as well as nonresponse.

The original data delivered to the World Bank were unweighted. As a result, the World Bank contracted Ipsos, a market research and survey firm, to construct survey weights. Estimates show no major differences between the weighted and unweighted data. The World Bank and UNDP produced joint factsheets in April 2018 with key indicators based on the unweighted data, but the World Bank reports include weighted estimates.

Small Sample Sizes and the Precision of Estimates

Because of the small sample sizes, many of the survey estimates show relatively large standard errors and wide confidence intervals. This is particularly the case of indicators for which the corresponding defined age-group is small, such as for preprimary (ages 3–5) or compulsory education completion rates (ages 18–21). As a result, many of the changes in coverage and, especially, gaps over time are not statistically significant (at either the 10, 5, or 1 percent level). All figures here show standard error bars for 90 percent confidence intervals. The colored tables indicating changes between the two survey years already include the relevant information on statistical significance.

Robustness Checks on the Data

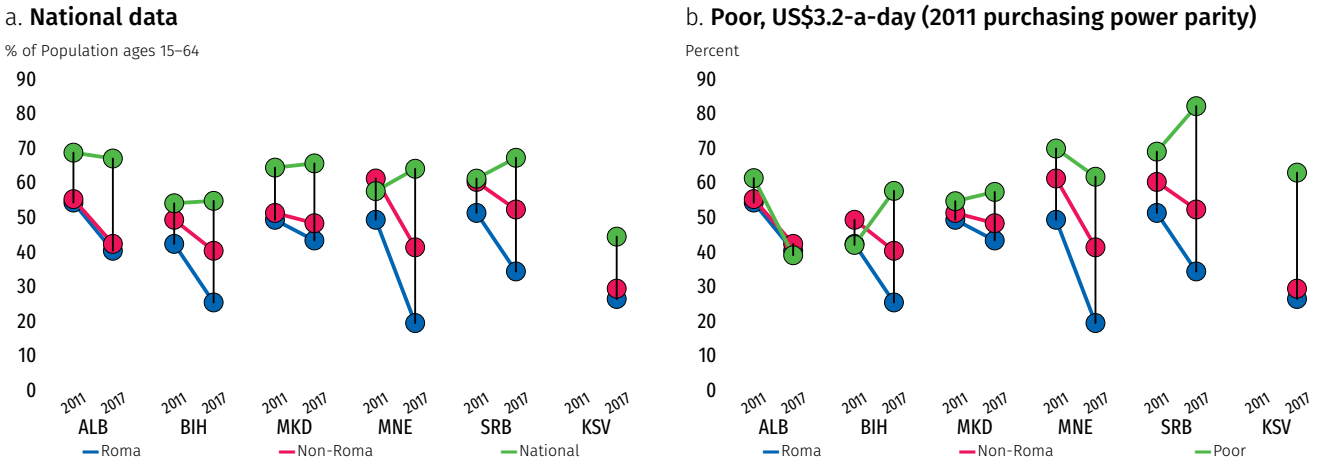
Comparing the standard labor market indicators of the RRS with national household budget surveys (HBSs) and labor force surveys offers an idea of ways to interpret the trends observed in the RRS. However, because the marginalized Roma and their non-Roma neighbors are vulnerable populations with lower education outcomes who tend to be situated in areas of the country that are far from labor markets, one cannot expect nationwide trends to mirror trends found in the RRS data. A possible

comparator of this population or, at least, of the non-Roma neighbors, may be the poor within each country, that is, people living on less than US$3.20 a day (2011 purchasing power parity).

Figures D.1–D.3 show national level labor market indicators (labor force participation, unemployment, and employment, respectively) from labor force surveys calculated by the World Bank Southeastern Europe Jobs Gateway for 2011 and 2016, alongside the RRS indicators for 2011 and 2017. They also show the same indicators calculated on populations living on less than US$3.20 a day (2011 purchasing power parity) as calculated by the World Bank (ECAPOV) using national HBSs, as well as EU Statistics on Income and Living Conditions (EU-SILC) survey data. The national HBS labor market indicators do not necessarily coincide with the labor force survey indicators in terms of levels. The HBS and the labor force survey are conducted using different methodologies and with different objectives. However, because the surveys allow for the calculation of poverty, they can provide estimates for a population that is more comparable with Roma and non-Roma neighbors.

Labor force participation trends among Roma are similar to those observed among the poor in Albania, North Macedonia, and Montenegro (Figure D.1). In Bosnia and Herzegovina and Serbia, improvements in participation among the general population translate into improvements among the poor, but not among Roma.

Figure D.1. **Labor Force Participation**



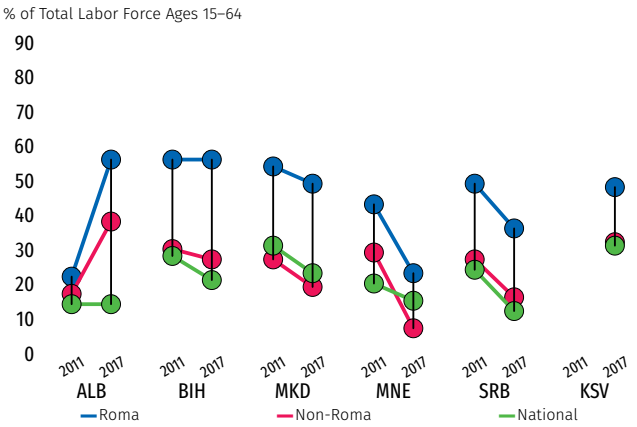
Source: Roma and non-Roma indicators: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data. National estimates: World Bank, Southeastern Europe Jobs Gateway (2011–16). US$3.20 poor estimates: ECAPOV and EU-SILC household surveys, circa 2011–17. ALB: HBS 2008, LSMS 2012; BIH: ECAPOV 2011–15; KSV: ECAPOV 2017, HBS; MNE: ECAPOV 2010–15, HBS; MKD: EU-SILC 2010–16; SRB: ECAPOV 2010–15.

For unemployment indicators, national trends are similar to the RRS trends in North Macedonia, Montenegro, and Serbia, which show a downward trend circa 2011–17 (Figure D.2). Unemployment trends among the poor also coincide with those of the RRS in Albania and North Macedonia.

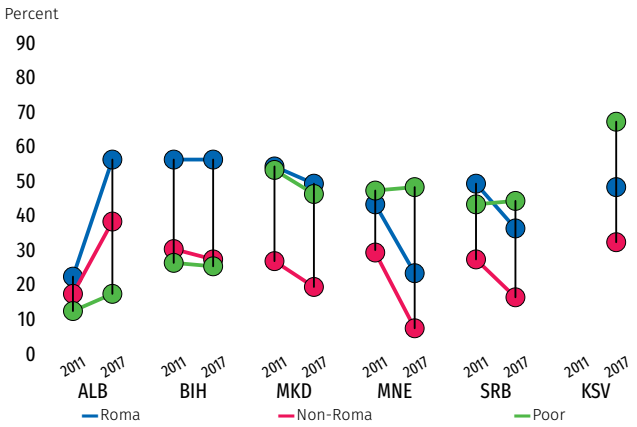
The decline in employment among Roma and non-Roma in most countries revealed by the 2011 to 2017 RRS rounds are not generally consistent with trends in national data, including among the poor, though there are exceptions (Figure D.3). Nationwide employment rates show a downward trend in Albania; in all other countries, employment improved nationwide in circa 2011–17. These trends are unlike the downward trends observed in almost all countries among Roma, except in North Macedonia, where the decline is not statistically significant at the 10 percent level. Among the poor, a downward trend is observed in Montenegro in the national data and in the RRS. The upward trend in employment that is observed among non-Roma in North Macedonia is also evident among the poor.

Figure D.2. **Unemployment Rate**

a. **National data**



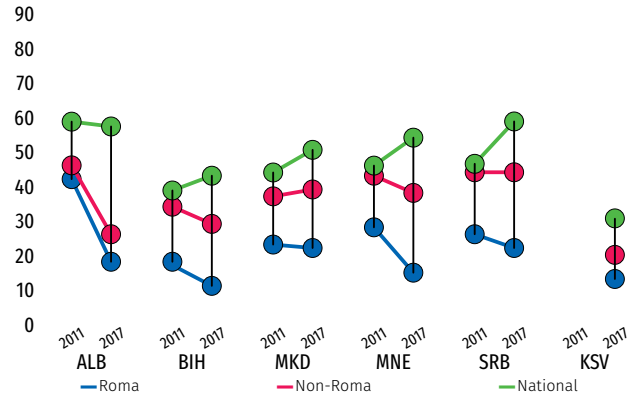
b. **Poor, US$3.2-a-day (2011 purchasing power parity)**



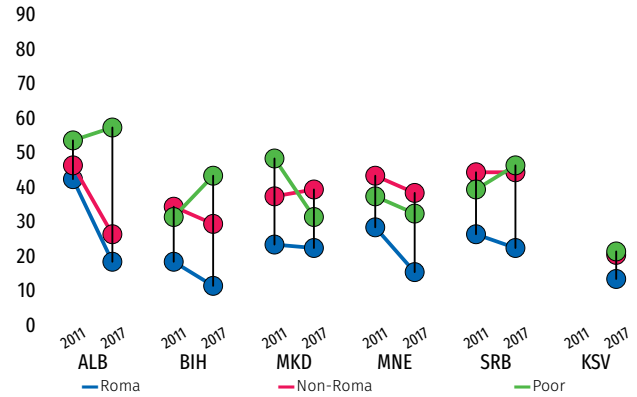
Source: Roma and non-Roma indicators: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data. National estimates: World Bank, Southeastern Europe Jobs Gateway (2011–16). US$3.20 poor estimates: ECAPOV and EU-SILC household surveys, circa 2011–17. ALB: HBS 2008, LSMS 2012; BIH: ECAPOV 2011–15; KSV: ECAPOV 2017, HBS; MNE: ECAPOV 2010–15, HBS; MKD: EU-SILC 2010–16; SRB: ECAPOV 2010–15.

Figure D.3. **Employment Rate**

a. **National data**



b. **Poor, US$3.2-a-day (2011 purchasing power parity)**



Source: Roma and non-Roma indicators: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data. National estimates: World Bank, Southeastern Europe Jobs Gateway (2011–16). US$3.20 poor estimates: ECAPOV and EU-SILC household surveys, circa 2011–17. ALB: HBS 2008, LSMS 2012; BIH: ECAPOV 2011–15; KSV: ECAPOV 2017, HBS; MNE: ECAPOV 2010–15, HBS; MKD: EU-SILC 2010–16; SRB: ECAPOV 2010–15.

Trend Analysis: Robustness of the Main Messages

Regarding the decline in labor force participation and employment

Roma clusters versus full sample

The 2017 survey included more highly integrated Roma, who are believed to be generally more well off than marginalized Roma living in Roma clusters. One therefore expects the full data to exhibit a smaller decline in labor force participation, not a larger one. In fact, if the sample is restricted to Roma living in concentrations higher than 40 percent (Roma clusters), the drops are somewhat larger in labor force participation in all countries except North Macedonia, where labor force participation fell by only 3 percentage points, and the decline was no longer statistically significant (Table D.4.). The conclusions on labor force participation trends remain the same in the full and restricted samples.

Table D.4. **Percentage Point Changes, Labor Market Indicators among Roma, 2011–17, Using Full 2017 Sample and Restricted to Roma Clusters**

Indicator	*Change in Roma Coverage, Roma Clusters*					*Change in Roma Coverage, Full Sample*				
	ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Labor force participation rate, ages 15–64	−14	−16	−3	−34	−18	−13	−16	−6	−30	−17
Employment-to-population ratio, ages 15–64	−27	−7	−2	−17	−6	−24	−7	−1	−13	−4
Unemployment rate, % of total labor force, ages 15–64	41	1	1	−15	−10	34	0	−4	−20	−13
Informal employment, % of total employment	−27	−11	−22	5	−12	−23	−19	−26	4	−10
NEET, ages 15–24	16	8	−1	10	−4	11	5	−2	9	−5

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Notes: All values shown are in percent, except for rooms per household member. Color key: denotes an improvement; denotes a worsening; and denotes no statistically significant change at the 10 percent level.

The same conclusions are also reached in the case of other labor market indicators among Roma in the full sample versus only Roma clusters. Employment outcomes show a similar, if not a larger decline in the restricted sample. In unemployment, the deterioration observed in Albania is even larger if restricted to Roma clusters, and the improvements observed in other countries are smaller. The same occurs in the not in employment, education, or training (NEET) rate.

The results allow one to conclude that the worsening of labor market indicators does not derive from the change in the sampling methodology to include more integrated Roma. Indeed, had the sampling methodology remained the same, the observed outcomes in labor markets may have been somewhat worse in most countries.

Adjustments to 2011 unemployment, employment, and labor force indicators

The 2011 and 2017 labor market indicators are not fully comparable. This is because of a change in how the unemployed are identified in each round. According to the definition of the International Labour Organization, persons who have not looked for work in the past four weeks, but who have a future labor market stake by making arrangements for a future job start are considered unemployed. In the 2011 survey, such persons can be identified because the possible responses to the question on whether the person had looked for work in the four weeks prior to the survey (question E10 in the 2011 questionnaire) are “Yes”; “No, since I already have a job which will start in some time”; and “No, I didn’t do anything.” In 2017, however, the only possible responses are “Yes” and “No.” Because “No, since I already have a job which will start in some time” and “No, I didn’t do anything” are lumped together in 2017, the 2017 measure of unemployment will necessarily be lower than the measure in 2011, all else being equal. This also has implications for labor force participation, because individuals considered unemployed (rather than out of work, but inactive) are considered part of the labor force. Table D.5 shows percentage point changes between 2011 and 2017 using an alternative measure of unemployment and labor force participation for 2011 that does not consider individuals who answer “No, since I already have job which will start in some time” to question E10 as unemployed. Using this alternative measure leads to lower labor force participation and lower unemployment measures for 2011. Labor force participation still falls among Roma in all countries under the alternative measure, though the decline in labor force participation in North Macedonia is no longer statistically significant

at the 10 percent level. Changes among non-Roma are also similar, except that the change in Serbia is no longer statistically significant, and no change is observed in North Macedonia. The changes among both Roma and non-Roma are about 4 to 5 percentage points lower in magnitude. Using the alternative measure of unemployment also leads to a much larger rise in unemployment in Albania, as well as a rise in unemployment in Bosnia and Herzegovina. No change is observed in unemployment in North Macedonia (though there is a small improvement under the definition of the International Labour Organization), and the improvements in unemployment observed in Montenegro and Serbia also become smaller under the alternative definition.

Table D.5. **Percentage Point Change, 2011–17, Labor Force Participation and Unemployment Rates Using the ILO and Alternative Definitions, 2011 Data**

Indicator	*Change in Roma coverage*					*Change in Non-Roma coverage*					*Change in inequality*				
	ALB	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*	*ALB*	*BIH*	*MKD*	*MNE*	*SRB*
Labor force participation rate (ages 15-64)	−13	−16	−6	−30	−17	−14	−9	−2	−20	−8	−1	8	3	10	9
Unemployment rate (% of total labor force, ages 15-64) (a)	34	0	−4	−20	−13	21	−3	−9	−22	−11	−13	−3	−4	−2	2
Labor force participation rate (ages 15–64)	−8	−11	−2	−26	−12	−10	−5	0	−17	−3	−1	6	1	9	9
Unemployment rate (% of total labor force, ages 15–64) (a)	42	6	0	−16	−8	27	2	−6	−19	−5	−15	−4	−5	−3	3

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: The alternative definition of unemployment does not consider individuals who answer "No, since I already have a job which will start in some time" as unemployed. This possible response is only found in the 2011 questionnaire. Color key: denotes an improvement; denotes a worsening; and denotes no statistically significant change at the 10 percent level. ILO = International Labour Organization.
a. A positive change in the gap for this indicator implies a reduction in inequality.

Possible underestimation of employment because of underreporting of informal work

There is reason to believe that the 2011 and 2017 survey rounds tend to undercount informal employment. The undercounting of informal employment is a concern because of its high incidence among Roma. In both survey years, enumerators were instructed not to consider begging or other "illegal" activities as employment on questions asking if a respondent had worked for pay during the previous week. The questionnaire instructs the interviewer not to include begging as work, and the interviewer manual mentions that illegal activities such as prostitution or begging should also not be considered as work. While there was no particular emphasis placed on this instruction during interviewer training in 2017, it is unknown to what extent interviewers mentioned "illegal" work to respondents. The term "illegal" itself is not entirely clear and could be interpreted to include many types of informal work because nonpayment of taxes or social insurance contributions may often be, in effect, illegal.

The 2017 survey round provides some evidence of underreporting of informal employment by survey respondents, implying that the employment, labor force participation, informal employment, and NEET indicators may be biased downward, while unemployment may be biased upward. It is not possible to quantify the size of the bias. The 2017 survey round provides a possible lower bound because some respondents who answer that they did not work during the previous week and also were not absent from a job may respond that the reason they did not look for work during the previous four weeks is because they are "involved in other informal work." If such individuals are considered employed, employment rates across countries rise by an average of about 4 percentage points. The finding in the survey implies that, indeed, the employment data may show signs of underreporting, and such

underreporting is found among both Roma and their non-Roma neighbors. However, even such individuals are considered employed, it remains unclear if all of the bias is being taken into account. The question did not exist in 2011; so, it is not possible to account for changes over time. For this reason, such individuals are not considered employed in either year.

Regarding the deterioration in labor market, health, and housing indicators in Montenegro

Roma in areas of high Roma concentration versus the full sample

The 2017 RRS round places Montenegro as a weak performer across three of the five priority areas: employment (labor markets), health, and housing. The labor market trends hold constant if the sample is restricted to only Roma in areas of high Roma concentration. The same holds for health and housing indicators. Education trends also remain constant, and, while there is a change in the statistical significance in the case of identify cards (documentation), the change only amounts to 1 percentage point.

Restricting the sample to Roma clusters leads to the same conclusions regarding trends (improvement or worsening among indicators) between 2011 and 2017 (Table D.6). The only exceptions are piped water inside the dwelling, waste never collected, and identify cards. The deterioration in access to piped water was 7 percentage points using the full sample but only 2 percentage points in the sample restricted to Roma clusters; the change is also not statistically significant at the 10 percent level if one restricts to Roma clusters. For waste never collected, the deterioration observed in the full sample (3 percentage points) becomes only 1 percentage point in the sample restricted to Roma clusters, and the change is no longer statistically significant. Reducing the sample to Roma clusters results in a statistically significant improvement in identify cards, albeit still small in magnitude (only 1 percentage point). Despite these differences, restricting the sample to only Roma clusters still leads to the conclusion that, on average, Montenegro is worsening in the priority areas of employment, health, and housing. Trends also show similarities with regard to the magnitude of changes between the two years.

Table D.6. **2017 Levels and Percentage Point Changes in Core Indicators among Roma, 2011–17, Using the Full 2017 Sample and Restricted to Roma Clusters, Montenegro**

Priority area	*Indicator*	*Restricted sample*		*Full sample*	
		2017	*Percentage point change, 2011–17*	*2017*	*Percentage point change, 2011–17*
Education	Net preprimary enrollment rate (ages 3–5)	30	21	21	12
	Adjusted net compulsory education enrollment rate (ages 7–15) (a)	69	13	62	6
	Compulsory education completion rate (ages 18–21)	32	−2	34	0
	Upper-secondary education completion rate (ages 22–25)	3	−2	3	−3
	Tertiary education completion rate (ages 26–29)	0	0	0	0
	Percentage of students attending majority Roma schools (ages 7–15) (b)	17	9	15	6
	Percentage of students attending special schools (ages 7–15) (b)	1	−5	1	−5
Labor Markets	Labor force participation rate (ages 15–64)	15	−34	19	−30
	Employment-to-population ratio (ages 15–64)	11	−17	15	−13
	Unemployment rate (% of total labor force, ages 15–64) (b)	28	−15	23	−20
	Informal employment (% of total employment) (c)	60	5	58	4
	Not in employment, education, or training (NEET) (ages 15–24) (b)	80	10	78	9
Health	Health insurance coverage (ages 16+)	86	−4	80	−9
	Self-reported unmet need for medical care (% of population ages 16+)	20	9	22	11
	Self-perceived health (% of population ages 16+ reporting good or very good health)	63	−15	63	−15
	Use of preventive health care services (% of population ages 16+)	51	11	48	8
Housing	Electricity (% of population)	93	3	92	1
	Piped water inside the dwelling (% of population)	78	−2	73	−7
	Connection to public sewerage or waste water tank (% of population)	56	−9	55	−10
	Waste never collected (% of population) (b)	19	1	21	3
	Rooms per household member (c)	0.6	−0.1	0.5	−0.1
	Overcrowding rate (% of population)	75	3	78	6
Documentation	Birth certificate (% of population)	97	2	96	1
	Identify card (% of population ages 16+)	84	3	83	2

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: All values shown are in percent, except for rooms per household member. Color key: denotes an improvement; denotes a worsening; and denotes no statistically significant change at the 10 percent level.
a. Compulsory education refers to ISCED 1 and 2.
b. A positive change in the gap for this indicator implies a reduction in inequality.
c. This indicator is calculated at the level of the head of household.

The robustness checks arising because of the inclusion of Roma living in areas of lower concentration in the 2017 sample for all countries are described in Table D.7. Cases are noted in which the difference in coverage is greater than 5 percentage points or in which the direction of the change, that is, improvement or worsening, shifts.

Table D.7. **Summary of Robustness Checks: Comparison of Full vs. Restricted Sample (Roma Clusters Only)**

Country	*Direction of changes*	*Magnitude of changes and statistical significance*
Albania	All changes in indicators maintain the same direction except for: Piped water inside the dwelling, which goes from a change of 2 percentage points (not statistically significant) in the full sample to -3 percentage points in the restricted sample (statistically significant).	No major differences in magnitude of change in most indicators (fewer than 5 percentage points) with a few exceptions: Compulsory education completion, which goes from a change of 20 percentage points (statistically significant) in the full sample to 7 percentage points (statistically insignificant) in the restricted sample; Upper-secondary education completion, which goes from a change of 11 percentage points (statistically significant) in the full sample to 1 percentage point (statistically insignificant) in the restricted sample; Unemployment rate, which goes from a change of 34 percentage points (statistically significant) in full sample to 41 percentage points (statistically significant) in the restricted sample; NEET rate, which goes from a change of 11 percentage points (statistically significant) in the full sample to 16 percentage points (statistically significant) in the restricted sample. All changes listed above go in the expected direction (i.e. worsening outcomes when only Roma settlements are included)
Bosnia and Herzegovina	All changes in indicators maintain the same direction.	No major differences in magnitude of change in most indicators (fewer than 5 percentage points) with a few exceptions: Compulsory education completion, which goes from a change of -2 percentage points (not statistically significant) in the full sample to -11 percentage points (statistically significant) in the restricted sample Students attending majority Roma schools, which goes from a change of 6 percentage points (statistically significant) in the full sample to 14 percentage points (statistically significant) in the restricted sample Informal employment, which goes from a change of -19 percentage points (statistically significant) in the full sample to -11 percentage points (statistically significant) in the restricted sample; Self-perceived health, which goes from a change of 2 percentage points (statistically insignificant) in the full sample to 6 percentage points (statistically significant) in the restricted sample; Connection to public sewerage or waste water tank, which goes from a change of -1 percentage points (statistically insignificant) in the full sample to -11 percentage points (statistically significant) in the restricted sample. All changes listed above go in the expected direction (i.e. worsening outcomes when only Roma settlements are included)

Table D.7. **Summary of Robustness Checks: Comparison of Full vs. Restricted Sample** (continued)

Country	*Direction of changes*	*Magnitude of changes and statistical significance*
North Macedonia	All changes in indicators maintain the same direction except for: Adjusted net compulsory, which goes from a change of 4 percentage points (not statistically significant) in the full sample to 0 percentage points (insignificant) in the restricted sample Unemployment rate, which goes from a change of -4 percentage points (statistically significant) in the full sample to 1 percentage points (significant) in the restricted sample Piped water inside the dwelling, which goes from a change of 1 percentage points (statistically insignificant) in the full sample to -2 percentage points (significant) in the restricted sample.	No major differences in magnitude of change in most indicators (fewer than 5 percentage points) with a few exceptions: Upper-secondary education completion, which goes from a change of 17 percentage points (statistically significant) in the full sample to 23 percentage points (statistically significant) in the restricted sample; Students attending majority Roma schools, which goes from a change of 16 percentage points (statistically significant) in the full sample to 30 percentage points (statistically significant) in the restricted sample, Unemployment rate, which goes from a change of -4 percentage points (statistically significant) in the full sample to 1 percentage point (not statistically significant) in the restricted sample; Self-perceived health, which goes from a change of -10 percentage points (statistically significant) in the full sample to -15 percentage points (statistically significant) in the restricted sample; Use of preventive health care services, which goes from a change of -3 percentage points (not statistically insignificant) in the full sample to -8 percentage points (statistically significant) in the restricted sample. All changes listed above go in the expected direction (i.e. worsening outcomes when only Roma settlements are included) except for upper-secondary education completion.
Montenegro	All changes in indicators maintain the same direction.	No major differences in magnitude of change in most indicators (fewer than 5 percentage points) with a few exceptions: Net preprimary enrollment, which goes from a change of 12 percentage points (statistically significant) in the full sample to 21 percentage points (statistically significant) in the restricted sample; Net compulsory enrollment, which goes from a change of 6 percentage points (statistically significant) in the full sample to 13 percentage points (significant) in the restricted sample; Unemployment rate, which goes from a change of -20 percentage points (statistically significant) in the full sample to -15 percentage points (statistically significant) in the restricted sample; Health insurance coverage, which goes from a change of -9 percentage points (statistically significant) in the full sample to -4 percentage points (statistically significant) in the restricted sample; Piped water inside the dwelling, which goes from a change of -7 percentage points (statistically insignificant) in the full sample to -2 percentage points (statistically significant) in the restricted sample. Except for the unemployment rate, the changes listed above do not go in the expected direction (i.e. worsening outcomes when only Roma settlements are included).

Table D.7. **Summary of Robustness Checks: Comparison of Full vs. Restricted Sample** (continued)

Country	*Direction of changes*	*Magnitude of changes and statistical significance*
Serbia	All changes in indicators maintain the same direction except for: Waste never collected, which goes from a change of -3 percentage points (statistically significant) in the full sample to 4 percentage points (significant) in the restricted sample.	No major differences in magnitude of change in most indicators (fewer than 5 percentage points) with a few exceptions: Upper secondary completion, which goes from a change of 6 percentage points (statistically significant) in the full sample to 11 percentage points (significant) in the restricted sample; Waste never collected, which goes from a change of -3 percentage points (statistically significant) in the full sample to 4 percentage points (significant) in the restricted sample; Overcrowding which goes from a change of -10 percentage points (statistically significant) in the full sample to -4 percentage points (statistically significant) in the restricted sample. All changes listed above go in the expected direction (i.e. worsening outcomes when only Roma settlements are included) except for upper-secondary education completion.

Source: World Bank estimates based on weighted 2011 and 2017 UNDP-World Bank-EC Regional Roma Survey data.

In looking at the effect of changes in sampling on Roma coverage and inequality indexes and subindexes, one may note that there are no changes in the conclusions on the improvement or worsening of indexes or subindexes, except for the Roma inequality subindex in housing in Montenegro. In this case, if the sample is restricted to only Roma living in Roma clusters, the results show an improvement, rather than a worsening in inequality. However, the results on changes in the Roma coverage subindex in housing still show a worsening.

Appendix E. **Additional Tables and Figures**

Table E.1. **Reasons for Not Sending 3- to 5-Year-Old Children to Childcare, Preschool, or Kindergarten, Roma Population**

Percent

	ALB	*BIH*	*MKD*	*MNE*	*SRB*	*KSV*
Affordability (option 1)	73	88	63	67	55	62
Availability (option 2, 3, 10)	20	24	32	13	29	23
Don't see a need (4, 8, 9)	67	55	72	75	70	71
Documents/repatriated child (11, 12)	9	1	3	10	3	6
Language/treatment (5, 6, 7)	14	4	7	13	6	5
Other reasons (95)	3	0	0	4	6	0

Source: World Bank estimates based on weighted 2017 UNDP- World Bank-EC Regional Roma Survey data.

Table E.2. **Marginal Effects after Probit Model, Dependent Variable: Adjusted Net Compulsory Enrollment, Ages 7–15, Albania, 2017**

	Roma			*Non-Roma*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Age			−0.0792***			−0.000276
			(0.0171)			(0.000563)
Mother's mean years of schooling	0.0946***	0.0908***	0.0965***	−0.000266	−0.000282	1.16e−05
	(0.0240)	(0.0245)	(0.0249)	(0.00105)	(0.00105)	(2.98e−05)
Father's mean years of schooling	0.0453**	0.0430**	0.0428**	0.00403	0.00404	0.000186
	(0.0201)	(0.0199)	(0.0195)	(0.00334)	(0.00333)	(0.000396)
Annual household per capita income		1.51e−06	1.30e−06		−1.27e−08	7.68e−10
		(1.24e−06)	(1.34e−06)		(4.31e−08)	(1.67e−09)
Observations	381	381	381	79	79	79

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: (1) Standard errors in parenthesis. (2) *** p<0.01, ** p<0.05, * p<0.1.

Table E.3. **Marginal Effects after Probit Model, Dependent Variable: Adjusted Net Compulsory Enrollment, Ages 7–15, Bosnia and Herzegovina, 2017**

	Roma			*Non-Roma*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Age			−0.0390***			0.000342
			(0.0122)			(0.000584)
Mother's mean years of schooling	0.0527***	0.0528***	0.0531***	0.0179	0.00144	0.000475
	(0.0146)	(0.0147)	(0.0149)	(0.0116)	(0.00158)	(0.000675)
Father's mean years of schooling	0.0370***	0.0372***	0.0381***	0.000500	−0.000433	−0.000176
	(0.0128)	(0.0128)	(0.0129)	(0.00965)	(0.000602)	(0.000247)
Annual household per capita income		−9.04e−06	7.42e−06		5.11e−07	1.73e−07
		(9.59e−05)	(9.53e−05)		(5.90e−07)	(2.47e−07)
Observations	480	480	480	82	82	82

Source: World Bank estimates based on weighted 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Standard errors in parenthesis. (2) *** p<0.01, ** p<0.05, * p<0.1.

Table E.4. **Marginal Effects after Probit Model, Dependent Variable: Adjusted Net Compulsory Enrollment, Ages 7–15, Montenegro, 2017**

	Roma			*Non-Roma*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Age			−0.0426***			−0.00967
			(0.0121)			(0.00628)
Mother's mean years of schooling	0.106***	0.109***	0.109***	0.0140*	0.0146*	0.00730
	(0.0203)	(0.0207)	(0.0205)	(0.00724)	(0.00765)	(0.00624)
Father's mean years of schooling	0.0171	0.0195	0.0211	0.0114	0.0111	0.00960
	(0.0153)	(0.0154)	(0.0154)	(0.00915)	(0.00915)	(0.00642)
Annual household per capita income		−0.000347	−0.000362		−3.23e−05	−1.49e−05
		(0.000266)	(0.000264)		(4.05e−05)	(2.08e−05)
Observations	746	746	746	97	97	97

Source: World bank estimates based on weighted 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Standard errors in parenthesis. (2) *** p<0.01, ** p<0.05, * p<0.1.

Table E.5. **Marginal Effects after Probit Model, Dependent Variable: Adjusted Net Compulsory Enrollment, Ages 7–15, North Macedonia, 2017**

	Roma			*Non-Roma*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Age			−0.0369***			0.0289**
			(0.0128)			(0.0122)
Mother's mean years of schooling	0.0337***	0.0313**	0.0310***	−0.0108	−0.0114	−0.0101
	(0.0127)	(0.0126)	(0.0119)	(0.0115)	(0.0112)	(0.0106)
Father's mean years of schooling	0.0335***	0.0308***	0.0325***	0.0298**	0.0273**	0.0259**
	(0.0115)	(0.0111)	(0.0108)	(0.0123)	(0.0128)	(0.0121)
Annual household per capita income		3.13e−06	3.31e−06		6.57e−07	1.10e−06
		(3.36e−06)	(3.08e−06)		(7.19e−07)	(9.43e−07)
Observations	396	396	396	136	136	136

Source: World bank estimates based on weighted 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Standard errors in parenthesis. (2) *** p<0.01, ** p<0.05, * p<0.1.

Table E.6. **Marginal Effects after Probit Model, Dependent Variable: Adjusted Net Compulsory Enrollment, Ages 7–15, Serbia, 2017**

	Roma			*Non-Roma*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Age			−0.0165**			
			(0.00778)			
Mother's mean years of schooling	0.0352***	0.0358***	0.0367***	0.00273	0.00219	
	(0.00905)	(0.00913)	(0.00911)	(0.00286)	(0.00230)	
Father's mean years of schooling	0.00425	0.00104	0.00283	−0.00284	−0.00251	
	(0.00737)	(0.00712)	(0.00693)	(0.00294)	(0.00256)	
Annual household per capita income		1.69e−06*	1.62e−06*		2.38e−08	
		(9.00e−07)	(8.88e−07)		(3.45e−08)	
Observations	464	464	464	77	77	5

Source: World bank estimates based on weighted 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Standard errors in parenthesis. (2) *** p<0.01, ** p<0.05, * p<0.1.

Table E.7. **Marginal Effects after Probit Model, Dependent Variable: Adjusted Net Compulsory Enrollment, Ages 7–15, Kosovo, 2017**

	Roma			*Non-Roma*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Age			-0.0396***			-0.00805
			(0.00929)			(0.00889)
Mother's mean years of schooling	0.0678***	0.0676***	0.0669***	0.00443	0.00457	0.00480
	(0.0130)	(0.0129)	(0.0132)	(0.00798)	(0.00804)	(0.00795)
Father's mean years of schooling	0.0373***	0.0378***	0.0387***	0.0125*	0.0127*	0.0124*
	(0.00859)	(0.00860)	(0.00880)	(0.00723)	(0.00737)	(0.00749)
Annual household per capita income		1.06e-06	8.37e-07		-9.77e-06	-1.57e-05
		(7.67e-07)	(8.13e-07)		(4.67e-05)	(4.19e-05)
Observations	710	710	710	164	164	164

Source: World bank estimates based on weighted 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Standard errors in parenthesis. (2) *** p<0.01, ** p<0.05, * p<0.1.

Table E.8. **International Property Rights Index, Europe and Central Asia, 2018**

Name	*Score*	*Global rank*	*Regional rank*
Moldova	4.002	115	24
Ukraine	4.282	110	23
Bosnia and Herzegovina	**4.417**	**107**	**22**
Albania	**4.525**	**102**	**21**
Serbia	**4.611**	**101**	**20**
Montenegro	**4.65**	**98**	**19**
Armenia	4.714	95	18
Kazakhstan	4.835	88	17
Russian Federation	4.89	84	16
Azerbaijan	5.037	78	15
Georgia	5.144	74	14
Croatia	5.171	73	13
Turkey	5.282	66	12
Bulgaria	5.397	63	11
Latvia	5.718	56	10
Romania	5.812	54	9
Slovenia	6.085	48	8
Poland	6.092	47	7
Hungary	6.097	46	6
Cyprus	6.237	41	5
Slovak Republic	6.273	39	4
Lithuania	6.424	36	3
Czech Republic	6.98	27	2
Estonia	7.181	24	1

Source: International Property Rights Index, https://www.internationalpropertyrightsindex.org/countries.
Note: No data asvailable for Kosovo and North Macedonia.

Table E.9. **Reasons for Inactivity among Working-Age Individuals (15–64), By Sex, 2017**

	ALB		*BIH*		*KSV*		*MKD*		*MNE*		*SRB*	
	Roma male	*Roma female*	*Roma male*	*Roma female*	*Roma male*	*Roma female*	*Roma male*	*Roma female*	*Roma male*	*Roma female*	*Roma male*	*Roma female*
Because there are no jobs	52	36	40	24	43	22	37	14	37	16	37	17
Because of health problems	21	18	18	15	19	11	19	13	15	15	18	20
I am doing other informal work	13	5	8	3	8	4	11	2	14	1	14	2
Currently studying/ too young	7	5	8	6	15	8	18	9	14	7	15	8
Retired/too old	2	6	4	4	3	2	7	6	3	4	7	7
Has small children to look after and/ or pregnant	1	18	0	12	0	14	1	15	0	22	0	20
Homemaker	0	8	0	24	4	36	2	37	1	24	0	21
Because I have no papers	0	0	1	2	1	1	0	1	9	6	1	1
Being a Roma, nobody hires me	4	3	19	9	8	1	3	2	4	3	4	1
Other	1	2	0	2	1	1	2	1	3	3	3	3

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Table E.10. **Reasons for Inactivity among Older Individuals (40–64), by Sex, 2017**

	ALB		*BIH*		*KSV*		*MKD*		*MNE*		*SRB*	
	Non-Roma male	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*
Because there are no jobs	39	30	25	9	38	21	22	10	24	15	9	11
Because of health problems	24	16	14	14	21	16	25	10	26	18	18	8
I am doing other informal work	28	7	5	1	26	3	21	4	6	2	14	4
Retired/too old	6	27	57	30	12	8	24	19	40	28	49	51
Has small children to look after and/ or pregnant	1	1	0	3	0	3	0	1	0	2	0	1
Homemaker	2	18	0	41	2	48	3	53	0	30	2	22
Because I have no papers	0	0	0	1	0	0	0	0	0	1	1	0
Other	1	1	0	1	1	0	5	2	4	3	7	3

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Table E.11. **Reasons for Inactivity among Younger Individuals (15–39), By Sex, 2017**

	ALB		*BIH*		*KSV*		*MKD*		*MNE*		*SRB*	
	Non-Roma male	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*	*Non-Roma male*	*Non-Roma female*
Because there are no jobs	59	41	45	28	47	24	42	18	42	18	43	22
Because of health problems	12	7	9	3	8	5	8	6	6	6	5	7
I am doing other informal work	12	4	9	3	9	5	12	2	15	1	15	3
Retired/too old	12	9	13	10	23	13	29	17	20	11	26	12
Has small children to look after and/or pregnant	1	28	0	20	0	18	1	26	0	29	1	32
Homemaker	0	6	0	19	4	32	1	26	1	22	0	19
Because I have no papers	4	3	22	12	8	1	4	2	4	3	5	0
Other	0	0	1	3	1	2	0	2	10	7	2	1

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

Table E.12. **Nonparametric Decomposition of Roma–Non-Roma Hourly Wage Gap, Western Balkans, 2017**

Country	*Specification*	*D*	*D0*	*DM*	*DF*	*DF*
Albania	Age	0.455	0.418	−0.003	0.004	0.036
	Age and attainment (1 if ISCED 3 complete/ tertiary complete)	0.455	0.307	0.141	−0.054	0.062
	Age, attainment, and marital status (1 if married)	0.455	0.266	0.141	−0.013	0.062
	Age, attainment, marital status, and informality	0.455	0.322	0.194	−0.061	−0.001
	Age, attainment, marital status, informality, and urban	0.455	0.414	0.181	−0.141	0.001
Bosnia	Age	0.395	0.386	−0.012	0.006	0.015
	Age and attainment (1 if ISCED 3 complete/ tertiary complete)	0.395	0.425	0.014	−0.015	−0.029
	Age, attainment, and marital status (1 if married)	0.395	0.449	−0.009	0.003	−0.048
	Age, attainment, marital status, and informality	0.395	1.749	−0.134	0.033	−1.252
	Age, attainment, marital status, informality, and urban	0.395	1.683	−0.487	0.119	−0.921
Montenegro	Age	−0.036	−0.059	−0.006	0.014	0.014
	Age and attainment (1 if ISCED 3 complete/ tertiary complete)	−0.036	0.266	0.079	−0.180	−0.202
	Age, attainment, and marital status (1 if married)	−0.036	0.178	0.081	−0.140	−0.156
	Age, attainment, marital status, and informality	−0.036	−0.138	0.165	−0.056	−0.006
	Age, attainment, marital status, informality, and urban	−0.036	−0.151	0.143	0.035	−0.063
North Macedonia	Age	0.338	0.313	−0.004	−0.014	0.043
	Age and attainment (1 if ISCED 3 complete/ tertiary complete)	0.338	0.144	0.073	−0.018	0.139
	Age, attainment, and marital status (1 if married)	0.338	0.178	0.082	−0.044	0.121
	Age, attainment, marital status, and informality	0.338	0.216	0.073	−0.062	0.110
	Age, attainment, marital status, informality, and urban	0.338	0.248	0.111	−0.052	0.031
Serbia	Age	0.138	0.082	−0.004	0.007	0.053
	Age and attainment (1 if ISCED 3 complete/ tertiary complete)	0.138	−0.109	0.017	0.040	0.191
	Age, attainment, and marital status (1 if married)	0.138	−0.085	0.036	0.015	0.173
	Age, attainment, marital status, and informality	0.138	−0.100	−0.014	0.110	0.143
	Age, attainment, marital status, informality, and urban	0.138	−0.199	0.122	0.194	0.020
Kosovo	Age	0.168	0.103	0.000	0.000	0.064
	Age and attainment (1 if ISCED 3 complete/ tertiary complete)	0.168	0.095	0.025	0.003	0.044
	Age, attainment, and marital status (1 if married)	0.168	0.045	0.078	−0.006	0.050
	Age, attainment, marital status, and informality	0.168	0.109	0.047	−0.033	0.044
	Age, attainment, marital status, informality, and urban	0.168	0.074	0.145	−0.015	−0.037

Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.
Note: D: overall hourly wage gap. D0: Part of the hourly wage gap not explained, which can be attributed to discrimination. DM: part of the gap caused by existence of non-Roma individuals with a combination of characteristics that are not met by any Roma. DF: part of the gap caused by existence of Roma individuals with a combination of characteristics that are not met by any Roma. DX: part of the gap caused by differences in observable characteristics in the common support

Table E.13. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, Albania, 2011 and 2017**

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Urban	−0.0360	−0.0294	−0.0402	0.0145	0.00924	0.00848
	(0.0356)	(0.0354)	(0.0354)	(0.0473)	(0.0498)	(0.0499)
Roma concentration higher than 40%				0.00616	0.00562	0.00181
				(0.0443)	(0.0452)	(0.0446)
Female	0.0210	0.0196	0.0130	0.00827	0.0169	0.0125
	(0.0315)	(0.0313)	(0.0302)	(0.0428)	(0.0426)	(0.0425)
Age	−0.0334***	−0.0317***	−0.0305***	−0.0468***	−0.0475***	−0.0468***
	(0.00698)	(0.00691)	(0.00657)	(0.00800)	(0.00799)	(0.00796)
Female household head	0.0747	0.0926	0.0897	−0.197**	−0.185*	−0.201**
	(0.0650)	(0.0656)	(0.0615)	(0.0888)	(0.0967)	(0.0968)
Age-group of the household head [15–24]	0.333***	0.334***	0.292***	0.0541	−0.00733	−0.0157
	(0.0622)	(0.0522)	(0.0532)	(0.325)	(0.326)	(0.330)
Age-group of the household head [25–34]	0.352***	0.337***	0.307***	0.00820	−0.0423	−0.0661
	(0.0637)	(0.0548)	(0.0551)	(0.326)	(0.326)	(0.330)
Age-group of the household head [35–44]	0.291***	0.270***	0.228***	0.0931	0.0530	0.0409
	(0.0664)	(0.0572)	(0.0552)	(0.328)	(0.328)	(0.332)
Age-group of the household head [45–54]	0.433***	0.403***	0.326***	0.135	0.0697	0.0431
	(0.0774)	(0.0705)	(0.0688)	(0.329)	(0.330)	(0.334)
Age-group of the household head [55–64]	0.601***	0.573***	0.481***	0.100	0.0311	0.0117
	(0.0880)	(0.0791)	(0.0818)	(0.333)	(0.333)	(0.337)
Marital status of the head: divorced/separated	−0.112	−0.110	−0.0936	0.221*	0.239*	0.261**
	(0.0725)	(0.0734)	(0.0687)	(0.114)	(0.124)	(0.120)
Marital status of the head: widowed	−0.138	−0.144	−0.114	0.196*	0.202*	0.240**
	(0.0906)	(0.0920)	(0.0870)	(0.112)	(0.115)	(0.118)
Marital status of the head: never married				−0.333***	−0.318***	−0.277**
				(0.114)	(0.121)	(0.123)
Education level of the head: ISCED 2 complete	0.214***	0.195***	0.171***	0.149***	0.123**	0.126**
	(0.0446)	(0.0473)	(0.0470)	(0.0566)	(0.0587)	(0.0590)
Education level of the head: ISCED 3 complete or tertiary complete	0.423***	0.383***	0.325***	0.217***	0.186**	0.202**
	(0.0802)	(0.0846)	(0.0796)	(0.0710)	(0.0862)	(0.0865)
Roma is the main language spoken at home	−0.0923***	−0.0778**	−0.0457	−0.129***	−0.111**	−0.0915*
	(0.0352)	(0.0359)	(0.0355)	(0.0456)	(0.0484)	(0.0492)
Number of other children in the household enrolled in compulsory education	26.55***	25.29***	22.92***	20.02***	20.18***	19.82***
	(2.860)	(2.890)	(2.868)	(3.532)	(3.604)	(3.593)
Two rooms in the household		0.0524	0.0101		0.00557	−0.00605
		(0.0377)	(0.0378)		(0.0544)	(0.0557)
Three rooms in the household		0.129**	0.105*		0.0234	−0.001000
		(0.0610)	(0.0581)		(0.0716)	(0.0742)

Table E.13. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, Albania, 2011 and 2017** (continued)

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Four rooms in the household		0.0968	0.164		0.0748	0.0681
		(0.150)	(0.127)		(0.0980)	(0.0896)
Five rooms in the household					0.0818	0.0445
					(0.213)	(0.216)
Six or more rooms in the household		0.190**	0.124*		0.171	0.180
		(0.0740)	(0.0736)		(0.208)	(0.196)
Access to toilet inside the dwelling		0.0564	0.0303		0.105**	0.0815
		(0.0368)	(0.0382)		(0.0516)	(0.0560)
Computer			0.140			−0.112
			(0.127)			(0.109)
Internet connection			−0.351***			0.00497
			(0.0822)			(0.114)
30 and more books (except school books)			0.0614			
			(0.0904)			
Washing machine			0.172***			0.119**
			(0.0408)			(0.0518)
Constant	0.373***	0.302***	0.316***	1.019***	1.008***	0.988***
	(0.0855)	(0.0819)	(0.0794)	(0.332)	(0.331)	(0.336)
Observations	732	732	732	472	472	472
R-squared	0.291	0.302	0.334	0.230	0.248	0.262
Adjusted R-squared	0.276	0.282	0.311	0.201	0.209	0.219

Source: World bank estimates based on weighted 2011 and 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Compulsory enrollment refers to enrollment in either ISCED 1 or ISCED 2. (2) Standard errors in parenthesis. (3) *** p<0.01, ** p<0.05, * p<0.1.

Table E.14. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, Bosnia and Herzegovina, 2011 and 2017**

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Urban	−0.0280	−0.0147	−0.0247	−0.109**	−0.0954**	−0.0983**
	(0.0386)	(0.0392)	(0.0380)	(0.0440)	(0.0472)	(0.0471)
Roma concentration higher than 40%				0.0296	0.0265	0.0162
				(0.0425)	(0.0435)	(0.0446)
Female	−0.0165	−0.0167	−0.0187	−0.0572*	−0.0580*	−0.0540
	(0.0303)	(0.0300)	(0.0296)	(0.0337)	(0.0335)	(0.0336)
Age	−0.0140**	−0.0150**	−0.0157**	−0.0176**	−0.0169**	−0.0170**
	(0.00641)	(0.00648)	(0.00634)	(0.00730)	(0.00740)	(0.00732)
Female household head	−0.0575	−0.0465	−0.0566	−0.0221	−0.0207	−0.0244
	(0.0550)	(0.0553)	(0.0525)	(0.0577)	(0.0587)	(0.0585)
Age-group of the household head [15–24]	0.0366	0.0344	−0.0252	0.107	0.0955	0.0746
	(0.145)	(0.141)	(0.147)	(0.141)	(0.139)	(0.145)
Age-group of the household head [25–34]	−0.112	−0.119	−0.166	0.0716	0.0679	0.0427
	(0.144)	(0.141)	(0.146)	(0.136)	(0.134)	(0.141)
Age-group of the household head [35–44]	−0.0915	−0.103	−0.150	0.00656	−0.00551	−0.0307
	(0.148)	(0.144)	(0.148)	(0.143)	(0.141)	(0.146)
Age-group of the household head [45–54]	−0.156	−0.148	−0.189	−0.0459	−0.0549	−0.0629
	(0.159)	(0.156)	(0.159)	(0.154)	(0.152)	(0.154)
Age-group of the household head [55–64]	0.306*	0.253	0.216	0.269	0.278	0.271
	(0.163)	(0.160)	(0.165)	(0.179)	(0.201)	(0.193)
Marital status of the head: divorced/separated	0.249***	0.233**	0.291***	0.176*	0.177*	0.216**
	(0.0923)	(0.0904)	(0.0883)	(0.0971)	(0.0952)	(0.0972)
Marital status of the head: widowed	−0.0125	−0.0298	−0.0235	0.0337	0.0165	0.0336
	(0.0820)	(0.0810)	(0.0765)	(0.105)	(0.106)	(0.106)
Marital status of the head: never married	0.0246	0.0398	0.0364	0.0297	0.0431	−0.000565
	(0.272)	(0.253)	(0.238)	(0.120)	(0.120)	(0.113)
Education level of the head: ISCED 2 complete	0.244***	0.230***	0.199***	0.173***	0.172***	0.166***
	(0.0418)	(0.0423)	(0.0421)	(0.0494)	(0.0499)	(0.0476)
Education level of the head: ISCED 3 complete or tertiary complete	0.327***	0.292***	0.246***	0.247***	0.249***	0.237***
	(0.0677)	(0.0672)	(0.0678)	(0.0577)	(0.0579)	(0.0581)
Roma is the main language spoken at home	−0.0427	−0.0497	−0.0274	−0.0297	−0.0349	−0.0219
	(0.0391)	(0.0391)	(0.0388)	(0.0500)	(0.0513)	(0.0518)
Number of other children in the household enrolled in compulsory education	13.04***	12.53***	13.02***	13.96***	14.38***	14.49***
	(1.973)	(2.070)	(1.950)	(2.141)	(2.131)	(2.195)
Two rooms in the household		−0.0112	−0.00131		0.0105	−0.00781
		(0.0492)	(0.0478)		(0.0588)	(0.0583)
Three rooms in the household		0.0532	0.0351		0.0662	0.0148
		(0.0614)	(0.0597)		(0.0714)	(0.0723)

Table E.14. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, Bosnia and Herzegovina, 2011 and 2017** (continued)

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Four rooms in the household		0.142*	0.118		0.0174	−0.0478
		(0.0854)	(0.0851)		(0.0926)	(0.0980)
Five rooms in the household		0.138	0.158		0.0693	−0.00844
		(0.107)	(0.113)		(0.0942)	(0.0996)
Six or more rooms in the household		0.0514	0.0453		−0.0185	−0.0871
		(0.107)	(0.104)		(0.173)	(0.160)
Access to toilet inside the dwelling		0.0742*	0.00452		−0.0685	−0.127**
		(0.0421)	(0.0463)		(0.0569)	(0.0593)
Computer			−0.0227			
			(0.0687)			
Internet connection			0.0688			0.0406
			(0.0759)			(0.0590)
30 and more books (except school books)			0.119			0.0495
			(0.0934)			(0.0640)
Washing machine			0.155***			0.114**
			(0.0453)			(0.0509)
Constant	0.634***	0.592***	0.624***	0.749***	0.774***	0.770***
	(0.154)	(0.152)	(0.157)	(0.168)	(0.178)	(0.186)
Observations	798	798	798	574	574	574
R-squared	0.222	0.234	0.256	0.202	0.207	0.226
Adjusted R-squared	0.206	0.212	0.230	0.178	0.174	0.189

Source: World bank estimates based on weighted 2011 and 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Compulsory enrollment refers to enrollment in either ISCED 1 or ISCED 2. (2) Standard errors in parenthesis. (3) *** p<0.01, ** p<0.05, * p<0.1

Table E.15. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, Montenegro, 2011 and 2017**

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Urban	0.0799	0.0648	0.0439	0.0760	0.0861*	0.0877*
	(0.0498)	(0.0486)	(0.0496)	(0.0465)	(0.0454)	(0.0449)
Roma concentration higher than 40%				0.0707**	0.0538	0.0593*
				(0.0356)	(0.0348)	(0.0357)
Female	−0.00408	−0.00579	−0.00286	−0.0299	−0.0242	−0.0248
	(0.0410)	(0.0417)	(0.0418)	(0.0276)	(0.0272)	(0.0272)
Age	−0.00299	−0.00585	−0.00499	−0.0342***	−0.0318***	−0.0319***
	(0.00906)	(0.00891)	(0.00893)	(0.00599)	(0.00591)	(0.00588)
Female household head	0.00689	0.0785	0.0723	−0.0440	−0.0539	−0.0599
	(0.0659)	(0.0707)	(0.0729)	(0.0698)	(0.0593)	(0.0594)
Age-group of the household head [15–24]	0.165	0.149	0.163	−0.0454	0.0131	−0.000556
	(0.100)	(0.119)	(0.119)	(0.103)	(0.107)	(0.107)
Age-group of the household head [25–34]	0.233**	0.221*	0.245**	−0.0946	−0.0651	−0.0811
	(0.0996)	(0.118)	(0.118)	(0.101)	(0.106)	(0.106)
Age-group of the household head [35–44]	0.192*	0.179	0.197	−0.162	−0.132	−0.137
	(0.108)	(0.124)	(0.124)	(0.103)	(0.107)	(0.106)
Age-group of the household head [45–54]	0.195	0.209	0.231	−0.0528	−0.0624	−0.0850
	(0.132)	(0.150)	(0.151)	(0.126)	(0.128)	(0.128)
Age-group of the household head [55–64]	0.405**	0.477**	0.465**	−0.293**	−0.304**	−0.295**
	(0.174)	(0.189)	(0.185)	(0.143)	(0.135)	(0.134)
Marital status of the head: divorced/separated	−0.0274	−0.0794	−0.0680	−0.0635	−0.0768	−0.0682
	(0.0770)	(0.0813)	(0.0843)	(0.0943)	(0.0846)	(0.0846)
Marital status of the head: widowed	−0.196**	−0.254***	−0.233**	0.0935	0.0958	0.103
	(0.0910)	(0.0933)	(0.0951)	(0.0852)	(0.0800)	(0.0797)
Marital status of the head: never married	0.573***	0.570***	0.562***	−0.0461	−0.0483	−0.0642
	(0.0927)	(0.0901)	(0.0999)	(0.131)	(0.149)	(0.153)
Education level of the head: ISCED 2 complete	0.108**	0.0785	0.0619	0.153***	0.119***	0.116***
	(0.0510)	(0.0492)	(0.0478)	(0.0418)	(0.0413)	(0.0405)
Education level of the head: ISCED 3 complete or tertiary complete	0.0558	0.0623	0.0368	0.143**	0.161**	0.157**
	(0.0839)	(0.0708)	(0.0663)	(0.0719)	(0.0690)	(0.0760)
Roma is the main language spoken at home	−0.122***	−0.126***	−0.115***	−0.101***	−0.0675*	−0.0700**
	(0.0420)	(0.0421)	(0.0422)	(0.0342)	(0.0344)	(0.0350)
Number of other children in the household enrolled in compulsory education	18.50***	16.99***	16.82***	15.77***	14.59***	14.85***
	(2.594)	(2.654)	(2.618)	(1.566)	(1.517)	(1.550)
Two rooms in the household		0.0430	0.0453		0.0180	0.0263
		(0.0523)	(0.0517)		(0.0413)	(0.0414)
Three rooms in the household		0.0491	0.0160		−0.0972**	−0.0949**
		(0.0579)	(0.0605)		(0.0483)	(0.0478)

Table E.15. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, Montenegro, 2011 and 2017** (continued)

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Four rooms in the household		0.0105	−0.00364		−0.0999	−0.105*
		(0.0804)	(0.0803)		(0.0621)	(0.0620)
Five rooms in the household		−0.196	−0.215*		0.0332	0.0119
		(0.123)	(0.122)		(0.140)	(0.134)
Six or more rooms in the household		−0.124	−0.218		−0.301***	−0.370***
		(0.227)	(0.245)		(0.0870)	(0.0970)
Access to toilet inside the dwelling		0.152***	0.109**		0.241***	0.208***
		(0.0461)	(0.0485)		(0.0394)	(0.0405)
Computer			0.0620			0.0667
			(0.130)			(0.0551)
Internet connection			0.0178			0.0140
			(0.130)			(0.0423)
30 and more books (except school books)			0.132			
			(0.0859)			
Washing machine			0.0687			0.0317
			(0.0496)			(0.0442)
Constant	0.226	0.182	0.147	0.853***	0.677***	0.678***
	(0.149)	(0.163)	(0.165)	(0.123)	(0.126)	(0.126)
Observations	753	753	753	892	892	892
R-squared	0.228	0.253	0.264	0.276	0.323	0.328
Adjusted R-squared	0.212	0.231	0.238	0.262	0.306	0.308

Source: World bank estimates based on weighted 2011 and 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Compulsory enrollment refers to enrollment in either ISCED 1 or ISCED 2. (2) Standard errors in parenthesis. (3) *** p<0.01, ** p<0.05, * p<0.1

Table E.16. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, North Macedonia, 2011 and 2017**

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Urban	−0.0286	−0.0438	−0.0391	0.141**	0.142**	0.136**
	(0.0486)	(0.0455)	(0.0441)	(0.0650)	(0.0667)	(0.0685)
Roma concentration higher than 40%	0	0	0	−0.0613	−0.0460	−0.0345
	0	0	0	(0.0440)	(0.0461)	(0.0440)
Female	−0.0450	−0.0449	−0.0412	−0.0104	−0.00920	−0.0189
	(0.0305)	(0.0302)	(0.0298)	(0.0357)	(0.0357)	(0.0344)
Age	−0.0295***	−0.0295***	−0.0303***	−0.0278***	−0.0285***	−0.0293***
	(0.00636)	(0.00634)	(0.00625)	(0.00946)	(0.00949)	(0.00914)
Female household head	0.111**	0.0986*	0.0921*	−0.0381	−0.0512	−0.0674
	(0.0547)	(0.0541)	(0.0538)	(0.107)	(0.104)	(0.112)
Age-group of the household head [15–24]	0.493***	0.426***	0.410***	0.617***	0.608***	0.553***
	(0.139)	(0.131)	(0.123)	(0.0812)	(0.0835)	(0.0873)
Age-group of the household head [25–34]	0.498***	0.435***	0.435***	0.596***	0.582***	0.510***
	(0.137)	(0.128)	(0.120)	(0.0774)	(0.0847)	(0.0912)
Age-group of the household head [35–44]	0.570***	0.501***	0.497***	0.542***	0.519***	0.437***
	(0.138)	(0.131)	(0.124)	(0.0870)	(0.0942)	(0.0983)
Age-group of the household head [45–54]	0.555***	0.457***	0.453***	0.730***	0.695***	0.637***
	(0.140)	(0.135)	(0.127)	(0.0693)	(0.0777)	(0.0809)
Age-group of the household head [55–64]	0.627***	0.531***	0.490***	0.754***	0.713***	0.624***
	(0.164)	(0.161)	(0.153)	(0.0780)	(0.0854)	(0.0959)
Marital status of the head: divorced/separated	−0.148*	−0.154*	−0.138*	0.128	0.168	0.158
	(0.0896)	(0.0873)	(0.0834)	(0.128)	(0.132)	(0.133)
Marital status of the head: widowed	−0.0957	−0.0815	−0.0810	0.0851	0.120	0.0829
	(0.0617)	(0.0620)	(0.0608)	(0.101)	(0.105)	(0.115)
Marital status of the head: never married	0.207	0.168	0.111	0.0811	0.0709	0.0883
	(0.353)	(0.320)	(0.285)	(0.0518)	(0.0807)	(0.0772)
Education level of the head: ISCED 2 complete	0.259***	0.218***	0.194***	0.213***	0.188***	0.159***
	(0.0381)	(0.0397)	(0.0401)	(0.0485)	(0.0537)	(0.0508)
Education level of the head: ISCED 3 complete or tertiary complete	0.355***	0.307***	0.253***	0.247***	0.221***	0.210***
	(0.0454)	(0.0515)	(0.0528)	(0.0642)	(0.0703)	(0.0687)
Roma is the main language spoken at home	−0.108***	−0.125***	−0.106***	−0.0883**	−0.0826*	−0.0866**
	(0.0381)	(0.0392)	(0.0392)	(0.0441)	(0.0441)	(0.0435)
Number of other children in the household enrolled in compulsory education	15.34***	16.41***	16.70***	6.838***	6.670***	7.595***
	(2.134)	(2.195)	(2.200)	(2.466)	(2.396)	(2.445)
Two rooms in the household	0	0.0450	0.0480	0	0.0194	0.0133
	0	(0.0576)	(0.0564)	0	(0.0659)	(0.0690)
Three rooms in the household	0	0.0355	0.0171	0	0.117*	0.0829
	0	(0.0650)	(0.0638)	0	(0.0707)	(0.0746)

Table E.16. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, North Macedonia, 2011 and 2017** (continued)

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Four rooms in the household	0	0.0815	0.0402	0	0.0713	0.00458
	0	(0.0696)	(0.0685)	0	(0.0845)	(0.0842)
Five rooms in the household	0	0.150	0.0878	0	0.0884	0.0241
	0	(0.108)	(0.125)	0	(0.110)	(0.110)
Six or more rooms in the household	0	0.0446	−0.00282	0	−0.0600	−0.0868
	0	(0.109)	(0.116)	0	(0.147)	(0.150)
Access to toilet inside the dwelling	0	0.101**	0.0648	0	0.0190	0.000723
	0	(0.0428)	(0.0431)	0	(0.0578)	(0.0578)
Computer	0	0	0.121**	0	0	0.0971
	0	0	(0.0529)	0	0	(0.0617)
Internet connection	0	0	−0.0103	0	0	0.0783
	0	0	(0.0539)	0	0	(0.0692)
30 and more books (except school books)	0	0	0.0864**	0	0	0
	0	0	(0.0426)	0	0	0
Washing machine	0	0	0.143*	0	0	−0.00964
	0	0	(0.0822)	0	0	(0.0688)
Constant	0.403***	0.418***	0.409***	0.239*	0.211	0.247*
	(0.148)	(0.136)	(0.130)	(0.138)	(0.145)	(0.146)
Observations	636	636	636	459	459	459
R-squared	0.247	0.262	0.282	0.204	0.215	0.242
Adjusted R-squared	0.227	0.235	0.252	0.173	0.174	0.196

Source: World bank estimates based on weighted 2011 and 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Compulsory enrollment refers to enrollment in either ISCED 1 or ISCED 2. (2) Standard errors in parenthesis. (3) *** p<0.01, ** p<0.05, * p<0.1.

Table E.17. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, Serbia, 2011 and 2017**

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Urban	0.0519	0.0296	0.0283	−0.0445	−0.0671*	−0.0743*
	(0.0391)	(0.0389)	(0.0393)	(0.0377)	(0.0389)	(0.0379)
Roma concentration higher than 40%				−0.0176	−0.0168	−0.0244
				(0.0378)	(0.0368)	(0.0373)
Female	0.00824	0.00723	0.00916	0.0128	0.0168	0.0236
	(0.0313)	(0.0307)	(0.0311)	(0.0324)	(0.0327)	(0.0319)
Age	−0.0368***	−0.0361***	−0.0366***	−0.0175**	−0.0180**	−0.0174**
	(0.00670)	(0.00669)	(0.00673)	(0.00747)	(0.00737)	(0.00730)
Female household head	0.0944	0.0893	0.0938	0.0230	0.0151	0.0306
	(0.0681)	(0.0650)	(0.0669)	(0.0448)	(0.0489)	(0.0506)
Age-group of the household head [15–24]	0.300	0.252	0.238	−0.0337	−0.0111	−0.0434
	(0.227)	(0.233)	(0.235)	(0.141)	(0.137)	(0.133)
Age-group of the household head [25–34]	0.285	0.242	0.232	−0.0401	−0.0229	−0.0930
	(0.226)	(0.233)	(0.234)	(0.136)	(0.133)	(0.130)
Age-group of the household head [35–44]	0.310	0.249	0.237	−0.0955	−0.0941	−0.151
	(0.228)	(0.235)	(0.236)	(0.136)	(0.132)	(0.130)
Age-group of the household head [45–54]	0.381*	0.306	0.284	−0.0635	−0.0707	−0.115
	(0.227)	(0.234)	(0.235)	(0.140)	(0.137)	(0.133)
Age-group of the household head [55–64]	0.270	0.231	0.225	0.0179	0.0112	−0.0448
	(0.251)	(0.255)	(0.256)	(0.152)	(0.155)	(0.153)
Marital status of the head: divorced/separated	0.106	0.0773	0.0686	0.0679	0.0775*	0.0695
	(0.0670)	(0.0669)	(0.0689)	(0.0472)	(0.0460)	(0.0505)
Marital status of the head: widowed	0.00187	0.0120	0.00919	−0.0214	7.61e−05	−0.0247
	(0.0790)	(0.0774)	(0.0794)	(0.0668)	(0.0700)	(0.0688)
Marital status of the head: never married	−0.373***	−0.325**	−0.330**	0.00131	0.00260	0.00953
	(0.137)	(0.134)	(0.138)	(0.0854)	(0.0950)	(0.104)
Education level of the head: ISCED 2 complete	0.0906**	0.0805**	0.0723*	0.0395	0.0373	0.0195
	(0.0371)	(0.0373)	(0.0376)	(0.0417)	(0.0418)	(0.0396)
Education level of the head: ISCED 3 complete or tertiary complete	0.123***	0.0976**	0.0922*	0.162***	0.136***	0.118**
	(0.0457)	(0.0466)	(0.0474)	(0.0481)	(0.0479)	(0.0477)
Roma is the main language spoken at home	0.0141	0.0215	0.0250	−0.0408	−0.0173	−0.0209
	(0.0365)	(0.0357)	(0.0362)	(0.0328)	(0.0313)	(0.0304)
Number of other children in the household enrolled in compulsory education	7.823***	7.855***	7.645***	7.801***	7.617***	7.470***
	(1.844)	(1.863)	(1.911)	(1.949)	(1.952)	(1.926)
Two rooms in the household		−0.00225	−0.00619		−0.00651	−0.0120
		(0.0407)	(0.0411)		(0.0428)	(0.0424)
Three rooms in the household		0.0383	0.0316		−0.0720	−0.0710
		(0.0442)	(0.0451)		(0.0546)	(0.0522)

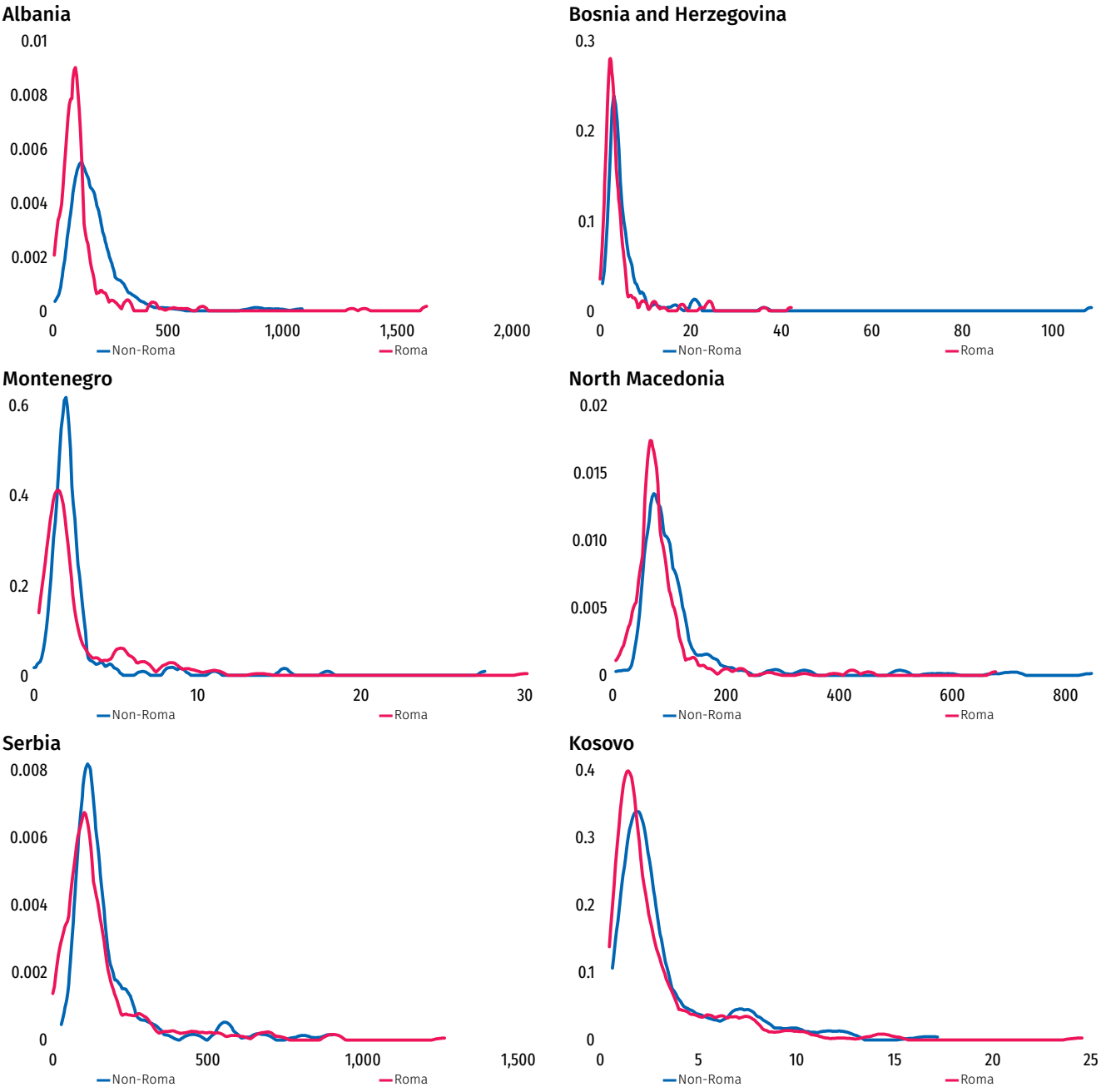
Table E.17. **Regression Results with Robust Standard Errors to Account for Clustered Data at the Household Level, Serbia, 2011 and 2017** (continued)

Dependent variable: adjusted net compulsory education enrollment (ages 7–15), Roma population

	2011			*2017*		
	reg1	*reg2*	*reg3*	*reg1*	*reg2*	*reg3*
Four rooms in the household		−0.109	−0.110		0.0127	0.0115
		(0.0737)	(0.0741)		(0.0674)	(0.0689)
Five rooms in the household		0.0360	0.0268		0.116**	0.114**
		(0.0800)	(0.0837)		(0.0511)	(0.0539)
Six or more rooms in the household		0.0781	0.0847		0.0295	−0.0231
		(0.130)	(0.140)		(0.130)	(0.138)
Access to toilet inside the dwelling		0.126***	0.102***		0.106**	0.0428
		(0.0337)	(0.0364)		(0.0414)	(0.0415)
Computer			−0.0351			−0.00598
			(0.0466)			(0.0476)
Internet connection			0.0485			0.0115
			(0.0527)			(0.0451)
30 and more books (except school books)			0.0406			
			(0.0422)			
Washing machine			0.0487			0.148***
			(0.0369)			(0.0398)
Constant	0.704***	0.702***	0.711***	1.019***	0.960***	0.974***
	(0.234)	(0.240)	(0.241)	(0.146)	(0.147)	(0.143)
Observations	702	702	702	590	590	590
R-squared	0.153	0.180	0.185	0.108	0.133	0.161
Adjusted R-squared	0.133	0.154	0.153	0.0819	0.0982	0.123

Source: World bank estimates based on weighted 2011 and 2017 UNDP- World Bank-EC Regional Roma Survey data.
Note: (1) Compulsory enrollment refers to enrollment in either ISCED 1 or ISCED 2. (2) Standard errors in parenthesis. (3) *** p<0.01, ** p<0.05, * p<0.1.

Figure E.1. **Kernel Densities of Log Hourly Wages, Roma vs. Non-Roma**



Source: World Bank estimates based on weighted 2017 UNDP-World Bank-EC Regional Roma Survey data.

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