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Employment disparities in Latvia

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Abstract

In Latvia, three sizeable groups of working-age population – ethnic minorities, residents of the Latgale region, and low-educated – feature substantially lower employment rates than those not belonging to these groups. This study provides an in-depth analysis of the corresponding employment disparities over the period of 2007 – 2017. The ethnic employment gaps for both genders are substantial and mostly unexplained by differences between the two groups in other demographic variables. Among citizens of Latvia, the ethnic effect on employment is almost twice as big as the effect of a 10% drop in GDP for females, while for males it is equivalent to the effect of a 4.3% drop in GDP. For males and females alike, the ethnic penalty for non-citizens is even larger and similar in size to the effect of low education (vs. secondary general). For both genders, the labour market penalty for living in Latgale is comparable in size with the effect of a 10% drop in GDP.

Keywords: employment, ethnic gap, regional disparities, unemployment.

JEL: J15, J21, J64, R23

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European Centre of Expertise in the field of labour law, employment and labour market policy (ECE)

Employment disparities in Latvia

Written by Mihails Hazans
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1 Introduction

In Latvia, three sizeable groups of working-age population¹ - ethnic minorities, residents of Latgale region, and low-educated - feature substantially lower employment rates than those not belonging to these groups. This paper sheds light on the question to what extent these disparities are evidence of unutilised labour.

The rest of the paper is organised as follows. Section 2 describes demographic background of employment disparities in Latvia (from the ethnic, regional and educational perspective) and documents the size of respective employment gaps and its evolution over time.

Section 3 provides a more detailed (in particular, by gender) and in-depth analysis of the employment disparities using statistic and econometric analysis of Labour Force Survey (hereafter LFS) data.

Section 4 presents and describes the profile of long-term unemployment in Latvia using both LFS and the State Employment Agency data.

Section 5 identifies categories of registered unemployed that are more likely than others to become long-term unemployed.

Section 6 provides an assessment of adequacy and efficiency of the active labour market policies provided by the public employment service to address the employment disparities.

Section 7 concludes.

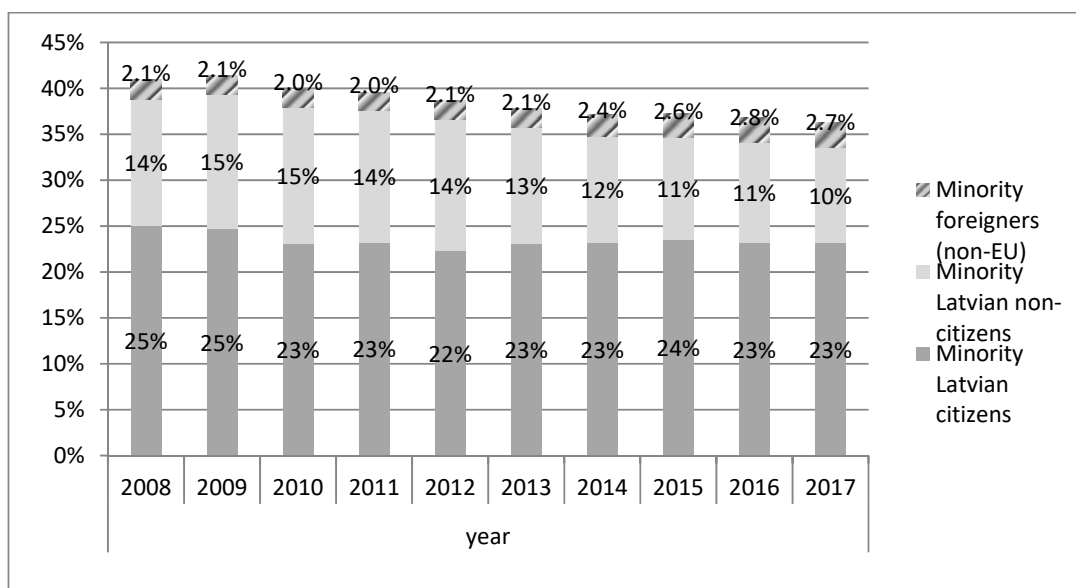
¹ For the purposes of this article, we refer to population aged 20-64 as working-age. This is because employment rate among teenagers (most of whom study) is well below 10%. Ethnic minorities exclude citizens of other EU countries - a category which is very small (0.20% to 0.35% of working-age population, depending on the year) and different from native minorities in terms of labour market outcomes.

2 Demographic background of employment disparities Latvia

2.1 The ethnic perspective

By 2017, ethnic minorities accounted for 36% of population aged 20-64, down from 41% in 2008 (Figure 1)². About two-thirds of this group (or about one-quarter of the total working-age population) are Latvia's citizens, most others hold Latvian non-citizen passports. Non-EU foreigners (mostly citizens of Russia, followed by Ukraine and Belarus) account for less than 3% of working-age population (and less than 8% of minorities).

Figure 1. Minority shares in Latvia's population aged 20-64, by citizenship. 2008-2017

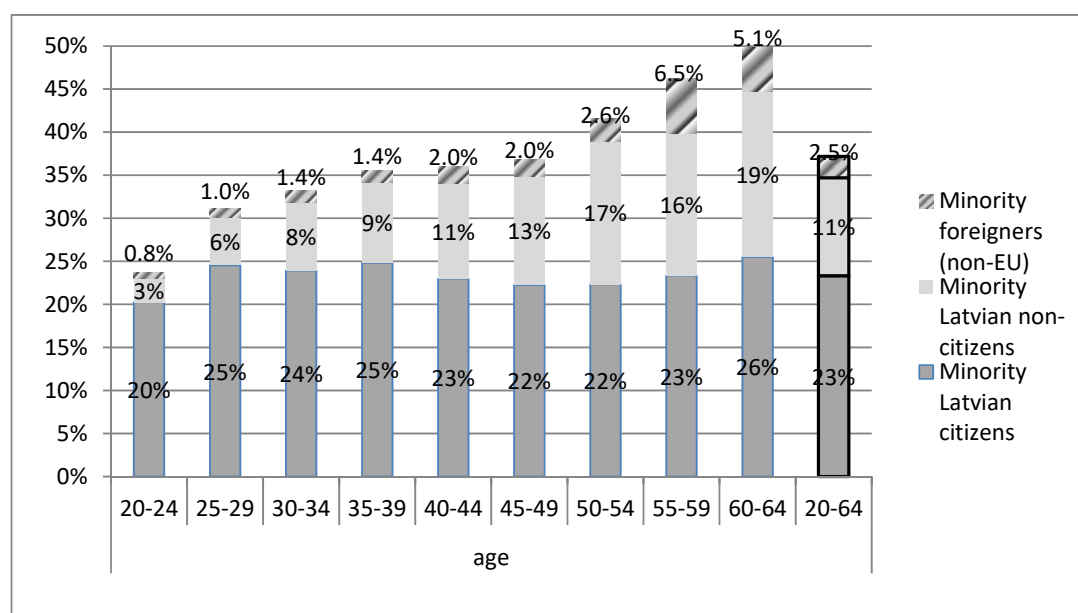


Notes: The Figure excludes citizens of other EU countries (0.20% to 0.35% of population aged 20-64). Sources: Calculation with LFS microdata.

The shares of non-citizens and non-EU foreigners increase with age (Figure 2). However, these shares are substantial also among population aged 20-34 (Figure 2).

² These figures are based on LFS data. Population statistics (CSB, 2017a) puts the proportion of minorities in January 2017 at 38.2% among population aged 20-64 and at 38.0% in general. This paper relies, when possible, on LFS data (population statistics is affected by unregistered migration).

Figure 2. Minority shares in Latvia's population aged 20-64, by age (2014-2015 av.)



Sources: Calculation with LFS microdata.

Importantly, **most members of minority working-age population are either born in Latvia or live here for more than 20 years**; recent immigrants account for no more than 2% (Table 1).

Table 1 Minority population aged 20-64 by duration of residence in Latvia, 2014-2015
Per cent

	Duration of residence in Latvia					Total
	Since birth	> 20 years	> 10 years	Up to 10 years	NA	
Minority - Latvia's citizens	87.0	3.0	9.6	0.2	0.2	100.0
Minority - Latvia's non-citizens and non-EU foreigners	52.6	32.1	11.4	2.8	1.1	100.0
Total	74.2	13.8	10.3	1.2	0.5	100.0

Sources: Calculation with LFS microdata.

About 90% of working-age minority population speak at home in Russian (Table 2).

Table 2 Population aged 20-64 by ethnicity and main language (2013-2016)

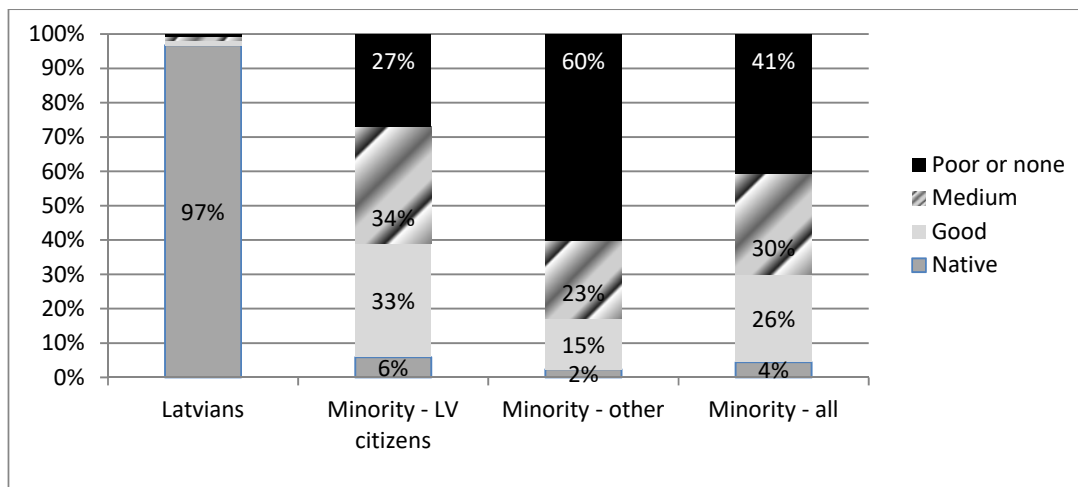
Per cent

Ethnicity	Main language used at home			Total
	Latvian	Russian	Other	
Latvian	94.6	5.3	0.1	100.0
Minority	9.0	89.9	1.1	100.0

Sources: Calculation with microdata of 4 waves of SKDS surveys (N=3232).

Latvian language skills are better among minority population with Latvia's citizenship than among those without Latvia's citizenship (Figure 3).

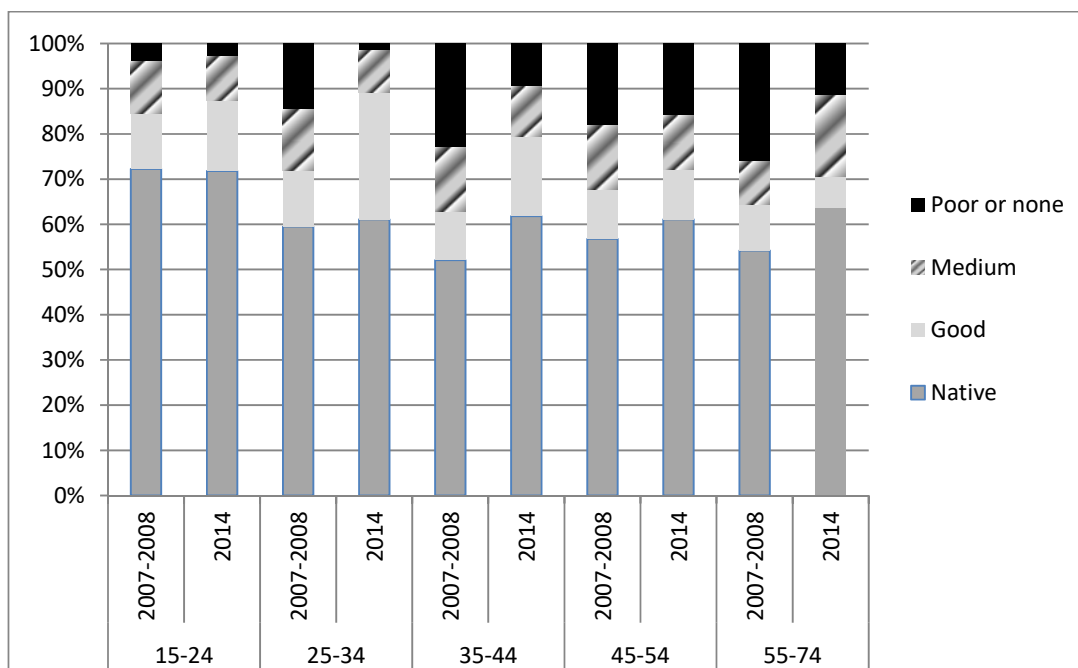
Figure 3. Latvian language skills of population aged 20-64, by ethnicity and citizenship (2007-2008)



Sources: Calculation with microdata of surveys "Language" (see Zepa et al, 2008), N=2735.

Young and middle-age cohorts feature much smaller shares of those with poor or none Latvian language skills than do older cohorts (Figure 4).

Figure 4 Latvian language skills by age group, 2007-2008 and 2014



Sources: Calculation with microdata of surveys "Language" (2007-2008); Druviete et al (2016: Figures 10 and 16); author's compilation.

Moreover, by 2014 the share of those with poor Latvian language skills declined strongly compared to 2007-2008 across age groups (see Figure 4 and Table 3).

Table 3 Shares of minority population aged 15-74 with medium and poor Latvian language skills, 2007-2008 and 2012-2014

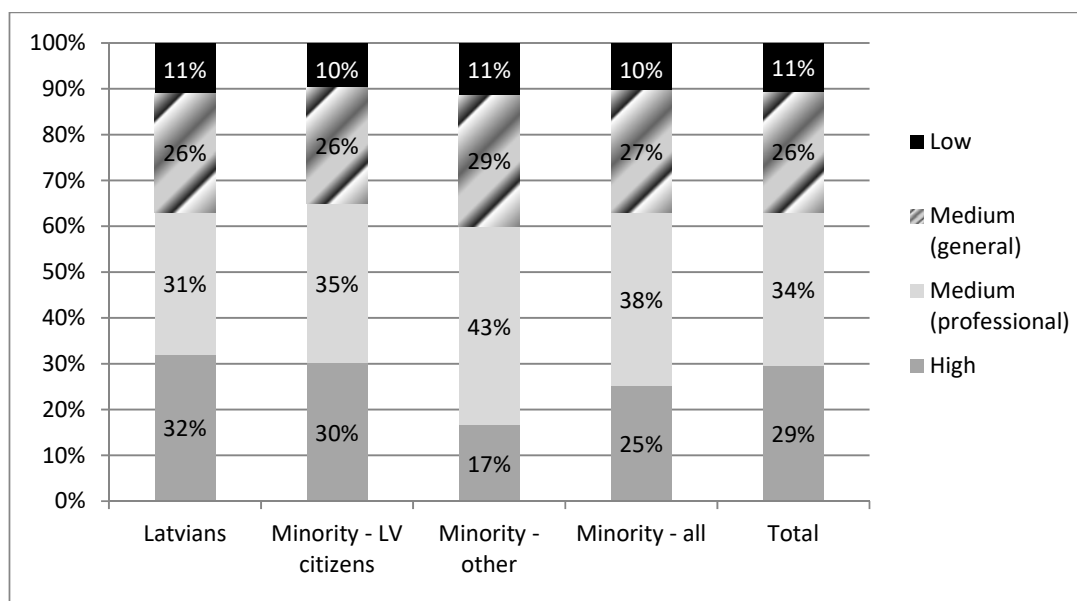
Per cent

	2007-2008	2012-2014
Medium	28.0	33.0
Poor or none	42.3	23.0

Sources: Calculation with microdata of surveys "Language" (2007-2008), N=1175; Druviete et al (2016: Figure 15, N=830).

In terms of educational attainment of working-age population, there is little difference between minorities - Latvia's citizens and ethnic Latvians, while **non-citizens** (and non-EU foreigners) **feature a substantially smaller share of tertiary-educated** and a larger share of those with secondary (or postsecondary) professional education (Figure 5).

Figure 5. Educational attainment of population aged 20-64, by ethnicity and citizenship, 2014-2015



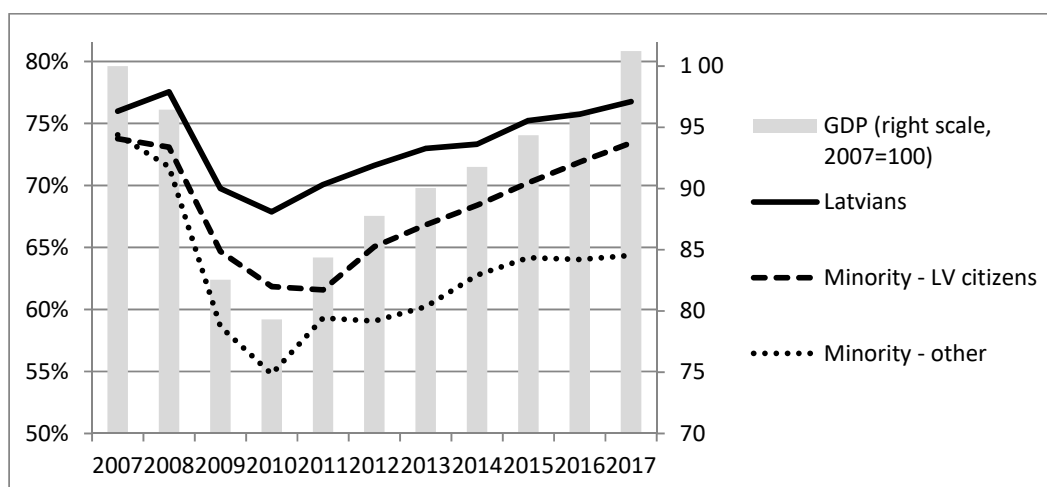
Notes: "High", "Medium" and "Low" refer, respectively, to tertiary, upper secondary, and lower than upper secondary education.

Sources: Calculation with LFS microdata.

2.2 Ethnic employment gap at a glance

In 2007, ethnic employment gap was just 2 percentage points in favour of Latvians, but during the crisis minority employment rate declined stronger (especially among those without Latvian citizenship³), see Figure 6.

Figure 6 Latvia's GDP and employment rates by ethnicity and citizenship, 2007-2017. Population aged 20-64



Notes: GDP at constant prices of 2010. "Minority - other" include Latvian non-citizens and non-EU foreigners. Data for 2017 are based on the first three quarters.

Sources: Calculation with Latvian LFS microdata and Statistics Latvia data.

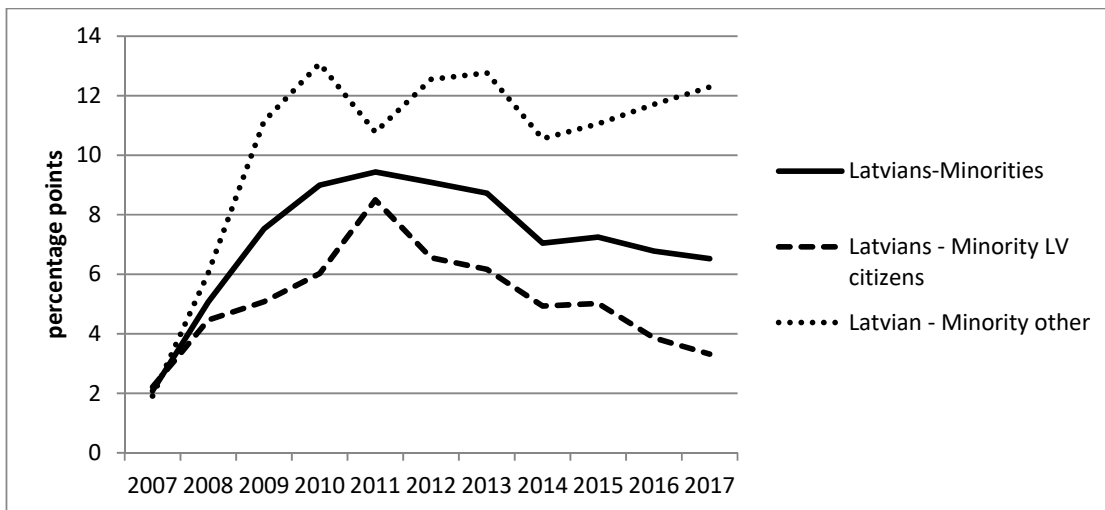
Employment gap between Latvians and minorities without Latvian citizenship reached 11 points already in 2009 and remained above 10 points since then, peaking at 13 points in 2010 (Figure 7). During 2016-2017 this gap was around 12 points, close to the average over 2009 -2017 (11.8 points). Employment rate of non-citizens was stable in 2015-2017, while GDP and employment rates of Latvians and minority-citizens were growing (Figure 6).

Employment gap between Latvians and minority-citizens peaked at 8.5 points in 2011 and declined steadily since then, narrowing down to 3.3 points in 2017 (Figure 7). Nevertheless, the **overall ethnic employment gap between Latvians and minorities remains substantial: 7.3, 6.8 and 6.5 points in 2015, 2016 and 2017, respectively (Figure 7).**

Moreover, **reduction of the ethnic employment gap occurs to a large extent not because stronger employment growth among minorities but rather because minority working-age population decreases faster than working-age population of ethnic Latvians (see Figure 1).** According to LFS estimates, the number of employed ethnic Latvians aged 20-64 remained roughly stable over the last 5 years, while similar figure for minorities declined (Figure 8). One of the reasons of faster decline of minority population is the fact that in recent years minority share in the net emigration exceeds minority share in population (Table 4).

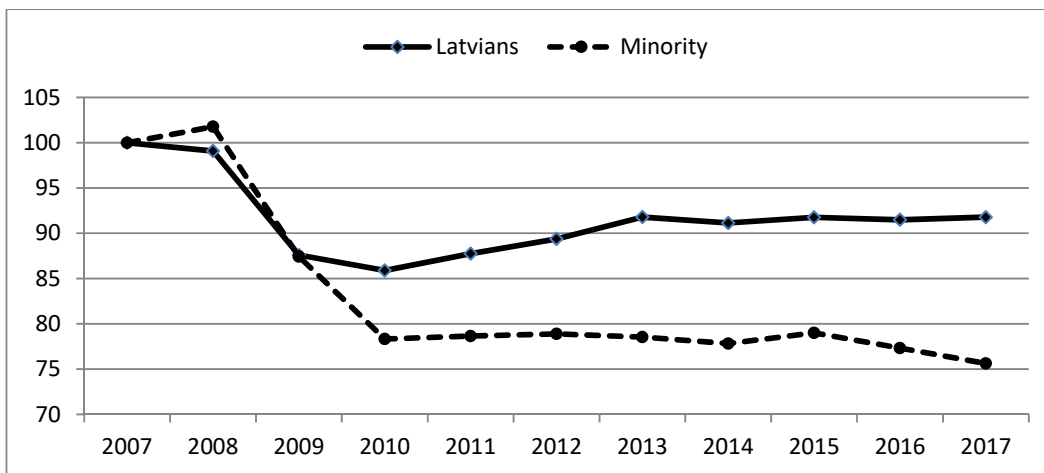
³ Hereafter, we will sometimes loosely refer to this group as "non-citizens".

Figure 7 Ethnic employment gaps, 2007-2017 (population aged 20-64)



Sources: Calculation with Latvian LFS microdata (2007-2015) and data provided by Statistics Latvia (2016-2017). Data for 2017 are based on the first three quarters.

Figure 8 LFS-based index (2007=100) of the size of employed population aged 20-64, 2007-2017, by ethnicity



Sources: See Figure 7.

Table 4 Minority share in emigration of Latvia's nationals (citizens and non-citizens), 2011-2016

	Per cent					
Minority share	2011	2012	2013	2014	2015	2016
in gross emigration	56.0	51.6	48.4	45.2	41.2	40.8
in net emigration	62.8	59.2	50.3	47.7	39.6	40.5
in population of nationals	38.1	37.6	37.4	37.0	36.6	36.4

Sources: Calculation with Statistics Latvia data.

2.3 The regional perspective

Latvia consists of 6 NUTS-3 regions (Table 5): capital city (Riga) and its surroundings (Pieriga) are located in the central part of the country; Vidzeme in the North-East borders with Estonia (but also has a small common border with Russia); Latgale in the East borders with Russia, Belarus and Lithuania; Zemgale in the South and Kurzeme in the West border with Lithuania.

Table 5 Latvia's regions: population shares, population change, net migration and inter-regional commuting patterns

Per cent

	Riga	Pieriga	Vidzeme	Kurzeme	Zemgale	Latgale
Population share, Jan 2017	32.9	18.7	9.8	12.6	12.1	13.9
Population change, 2009-2016	-6.7	-2.6	-14.4	-13.9	-12.1	-16.3
of which: net migration	-4.6	-2.2	-10.3	-10.4	-9.0	-9.6
Internal net migration, 2011-2016	2.0	1.1	-2.3	-1.3	-1.7	-1.5
Employment rate 20-64, 2016	76.2	77.4	72.2	72.4	70.3	64.6
Employed population (2015)						
Work in the region of residence	95.4	57.1	85.0	91.4	80.7	94.2
Work in Riga	95.4	39.6	10.1	4.3	14.8	2.9
Work abroad (being HH member in Latvia)	0.8	1.7	2.1	3.1	0.8	1.7

Sources: Calculation with Statistics Latvia data and LFS microdata.

About 40% of employed persons living in Pieriga work in Riga (Table 5), so Riga and Pieriga together should be considered as a single labour market; employment rate here in 2016 was close to 77%. Vidzeme, Kurzeme and Zemgale feature employment rates in a narrow range between 70% and 73%, while Latgale stands out with employment rate below 65% (Table 5). Latgale's remoteness from the central part of the country clearly plays a role here: just 3% of employed residents of Latgale work in Riga, while this proportion is 10% in Vidzeme and 15% in Zemgale (Table 5). **Hereafter, for the purposes of this paper, we distinguish 3 groups of regions (see Tables 5-7 for details):**

(i) Metropolitan area (Riga and Pieriga) hosts more than a half of Latvia's population, features population density 5 times higher than the rest of the country, and has more educated population. Despite positive balance of inter-regional migration, total population change during 2009-2016 has been slightly negative due to natural decrease and emigration.

(ii) Vidzeme, Kurzeme and Zemgale regions together host more than one-third of country's population. During the eight post-crisis years (2009-2016) population of these regions has declined by 13.4%.

(iii) Latgale is home for about 14% of Latvia's residents. In terms of population density, Latgale does not differ much from Vidzeme, Kurzeme and Zemgale (Table 6), yet in Latgale a larger share of population (42% vs. 31%) lives in medium and large cities with >20 000 inhabitants, while the share of rural population is smaller (40% vs. 47%). Among Latvia's regions, Latgale features the most pronounced depopulation (16.3% over the eight post-crisis years).

Table 6 Latvia's population by group of regions and type of settlement
Per cent (except for density)

	Riga and Pieriga	Vidzeme, Kurzeme and Zemgale	Latgale	Total
Cities, population >20 000	70.9	30.7	41.7	53.0
Towns, population 4 000 to 20 000	8.2	15.8	13.4	11.6
Towns, population < 4 000	1.9	6.3	4.8	3.8
Rural areas	19.0	47.2	40.1	31.7
Total	100.0	100.0	100.0	100.0
Population density per sq. km	96.4	17.0	19.0	30.2
Share in total population	51.6	34.5	13.9	100.0

Sources: Calculation with Statistics Latvia data

In all regions **outside the metropolitan area, depopulations is caused by negative natural change and negative balance of both inter-regional and international migration** (Table 5).

As far as educational attainment of working-age population is concerned, the **share of tertiary educated is 22% both in Latgale and in the other three regions outside the metropolitan area, while it is about 38% in Riga and its surroundings** (Table 7). **Latgale, in comparison with Vidzeme, Kurzeme and Zemgale, features a larger proportion of working-age population with secondary (or postsecondary) professional education** and smaller shares of low-educated and those with general secondary education (Table 7).

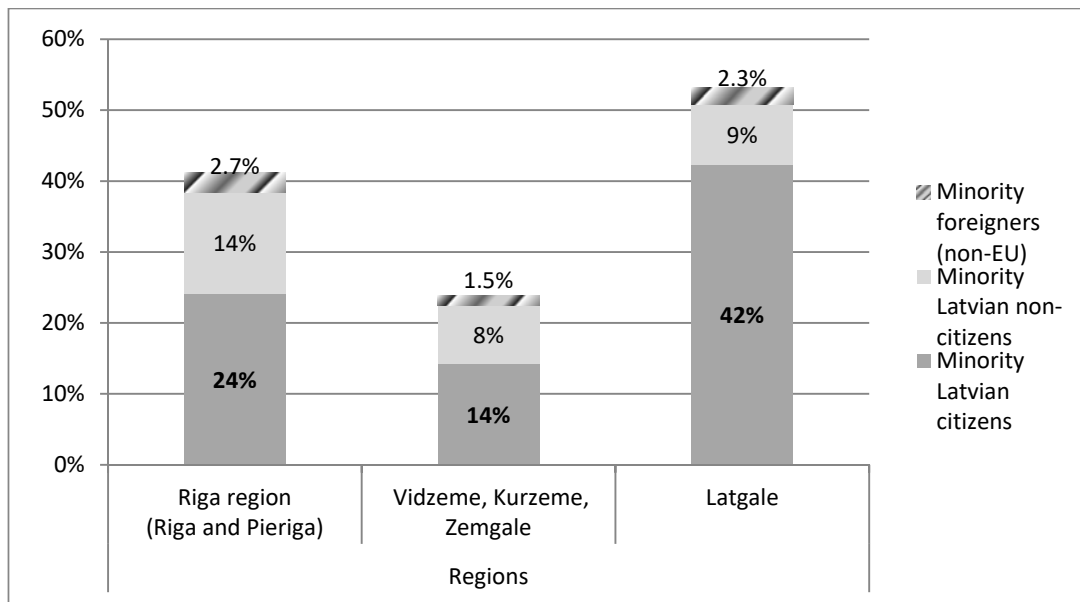
Table 7 Population aged 20-64 by group of regions and educational attainment, 2015
Per cent

	Riga and Pieriga	Vidzeme, Kurzeme and Zemgale	Latgale	Total
Tertiary education	37.6	22.4	21.9	30.1
Secondary professional education	31.3	33.9	43.4	33.9
Secondary general education	23.8	29.1	24.1	25.7
Less than upper secondary education	7.3	14.6	10.6	10.3
Total	100.0	100.0	100.0	100.0

Sources: Calculation with LFS microdata

As seen in Figure 9, **Latgale features the largest share of minority population (more than 50% among working-age population)** followed by above 40% in Riga and Pieriga. In the rest of Latvia, minorities account for 24% of population (varying from 13% in Vidzeme to 23% in Kurzeme to 29% in Zemgale).

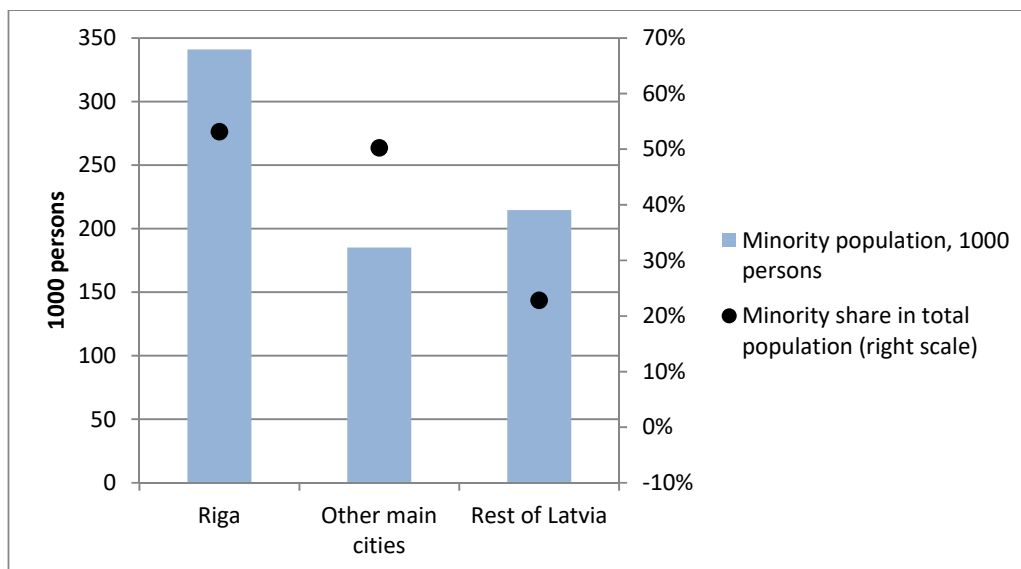
Figure 9 Minority shares by citizenship and region. Population aged 20-64, 2014-2015



Sources: Calculation with LFS microdata.

The largest share of non-citizens and foreigners (about 17%) is found in Riga region, while in the rest of Latvia it is, on average, about 10% (Figure 9). More than 70% of minority population (526 000 persons) is concentrated in the nine main cities, where minorities account, on average, for about 50% of total population (Figure 10). Remaining 215 000 minority population live in small towns and rural areas, where they account for 23% of total population (Figure 10).

Figure 10 Minority population in Latvia by type of settlement (January 1, 2017)



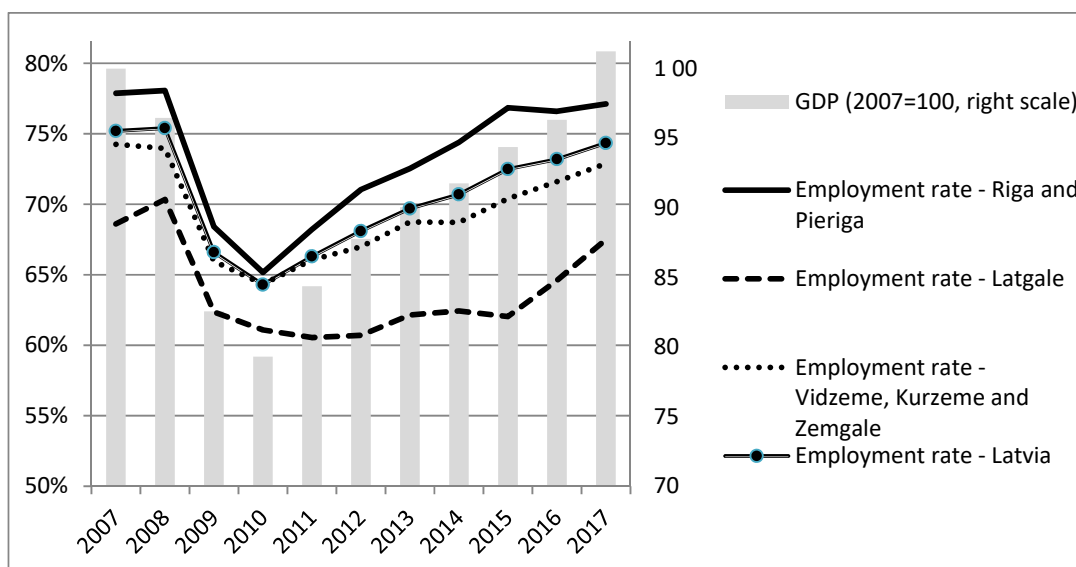
Notes: "Other main cities" include Daugavpils and Rzekne (in Latgale), Liepaja and Ventspils (in Kurzeme), Jelgava and Jekabpils (in Zemgale), Valmiera (in Vidzeme), and Jurmala (in Pieriga). Sources: Calculation with Statistics Latvia data.

2.4 Regional employment gap at a glance

In what follows, we focus on the regional employment gap between Latgale, on one hand, and other regions outside the metropolitan agglomeration, on the other.

As can be seen in Figure 11, employment rate in Latgale was 4 to 5 points below that in Vidzeme, Kurzeme and Zemgale already in 2007-2008.

Figure 11 Latvia's GDP and employment rates by group of regions, 2007-2017. Population aged 20-64



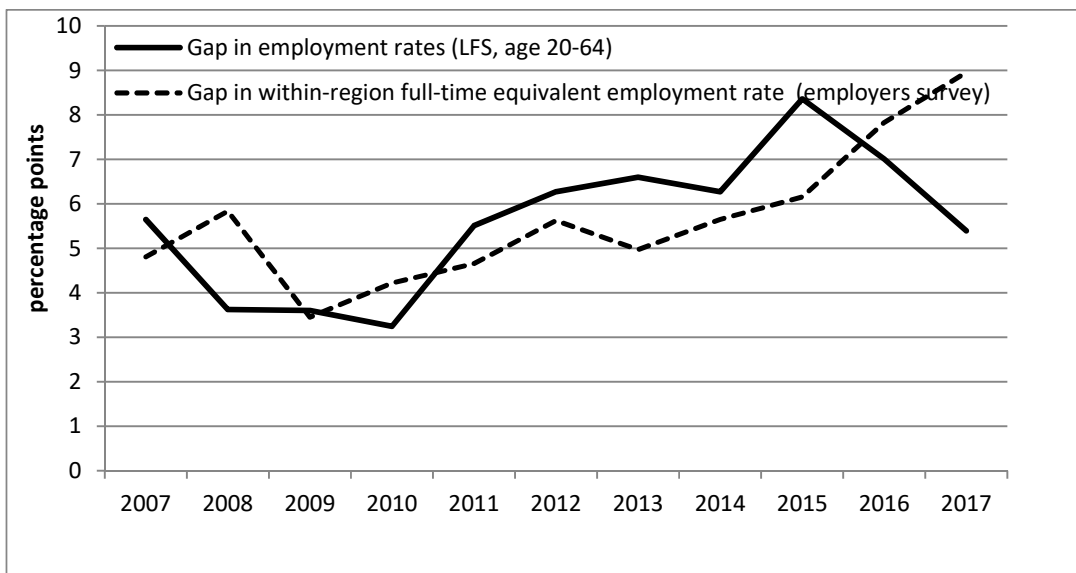
Notes: GDP at constant prices of 2010. Data for 2017 are based on the first three quarters. Sources: Calculation with Latvian LFS microdata and Statistics Latvia data.

Unlike the ethnic employment gap, which widened during the crisis and declined since 2012 (Figure 7), the regional gap was at historic low (3 points) in 2010 (the worst year of the crisis). During the post-crisis growth period, employment rate in Latgale was growing slower than elsewhere (Figure 11) and the regional employment gap has reached 8.4 points by 2015 (Figure 12).

In 2016-2017, however, Latgale's employment rate outpaced employment rate elsewhere in Latvia, and by 2017 the gap has narrowed down to 5.4 points (Figure 12). This latter finding, however, should be treated with care because an alternative employment indicator (employment rate in full-time units, measured via employers' survey and accounting only for employment within region) suggests an increase in the gap in 2016-2017 (Figure 12).

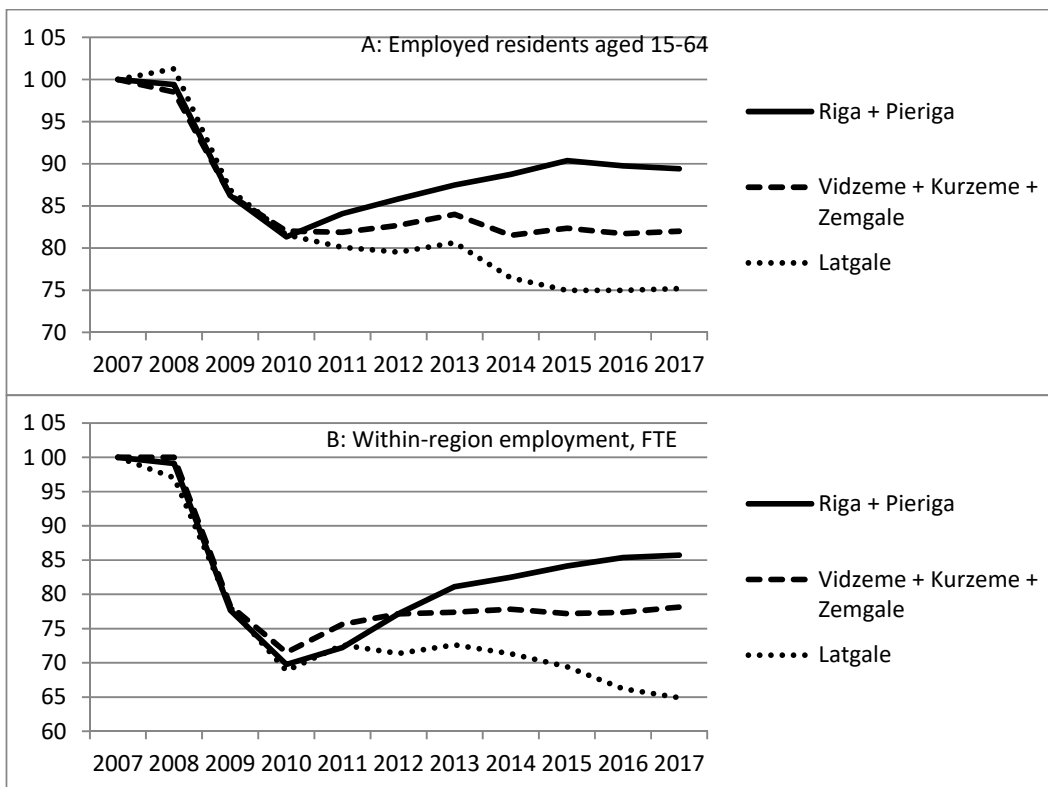
It is worth noting that while the gap in employment rates is an appropriate measure as far as unutilised labour is concerned, trends in total employment provided useful complementary information about labour market developments. In this regard, Figure 13 provides evidence that **during 2014-2017, according to actual job location, the number of employed in full-time equivalent units was declining in Latgale, stable in Vidzeme, Kurzeme and Zemgale, and growing in Riga and Pieriga.** Employed population by residence features similar (but less pronounced) trends.

Figure 12 Regional employment gap: Vidzeme, Kurzeme and Zemgale vs. Latgale, 2007-2017



Sources: Calculation with Latvian LFS microdata and Statistics Latvia data. Data for 2017 are based on the first three quarters.

Figure 13 Size of employed population by group of regions, 2007-2017 (2007=100),

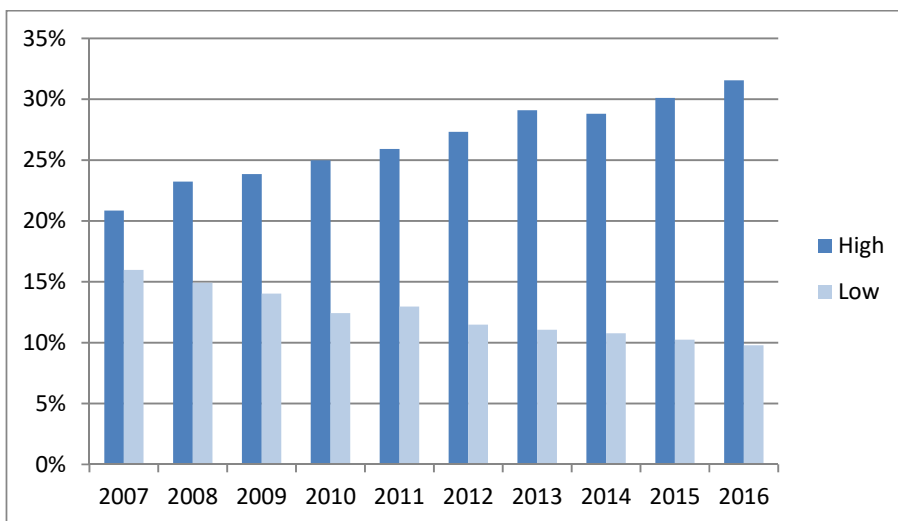


Notes: FTE (in panel B) refers to full-time equivalent units. Sources: Calculation with Statistics Latvia data.

2.5 The educational perspective

As of 2016, almost one-third of Latvia's population aged 20-64 were tertiary-educated, while low-educated accounted for just one-tenth (Figure 14). The share of high-educated is growing, while the share of low-educated is falling (Figure 14).

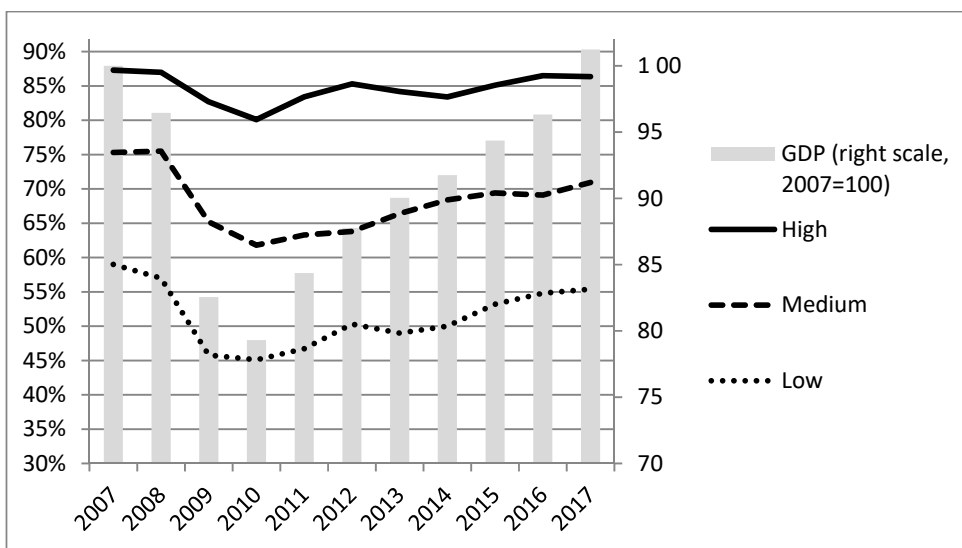
Figure 14 Shares of high- and low-educated in Latvia's population aged 20-64, 2008-2016



Sources: Calculation with Eurostat data.

Employment rates at all education levels moved largely in the same direction as GDP, although in most cases employment growth rates were smaller (Figure 15).

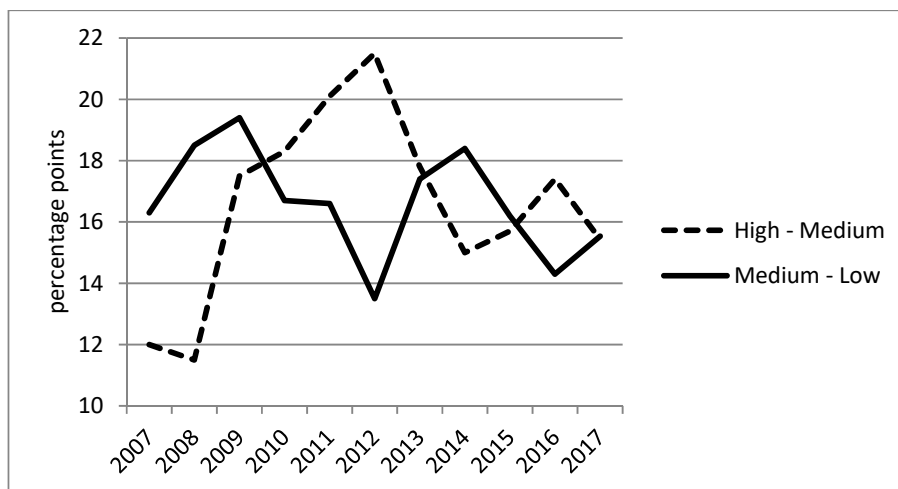
Figure 15 Employment rates of population aged 20-64 by completed education level, 2007-2017



Sources: Eurostat data. Data for 2017 are based on the first three quarters.

The employment gaps by education level in Latvia are large: in 2016, the gap between medium and low education was 14 points, while the gap between high and medium education - 17 points; in 2017 both gaps were between 15 and 16 points (Figure 16).

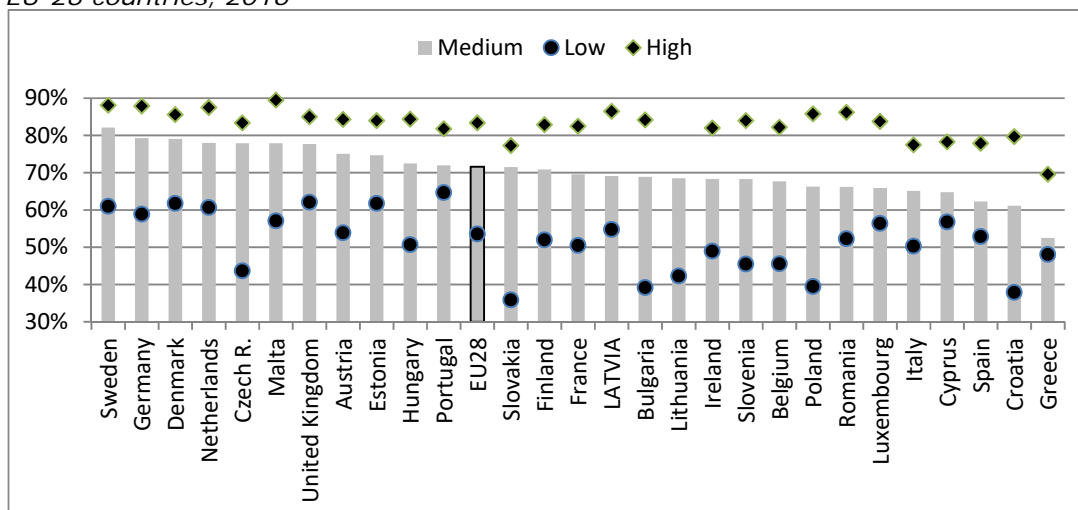
Figure 16 Employment gaps by educational attainment. Population aged 20-64, 2007-2017



Sources: Calculation with Eurostat data. Data for 2017 are based on the first three quarters.

However, such gaps are not unusual: 20 out of 28 EU countries feature even larger employment gaps between medium and low education, with EU average at 18 points (Figure 17; see Table 8 for details and data by gender).

Figure 17 Employment rates of population aged 20-64 by completed education level, EU-28 countries, 2016



Sources: Eurostat data.

Moreover, Latvia's employment rate of low-educated (54.8%) is above EU average (53.6%), and share of low-educated among population aged 20-64 in Latvia (less than 10%) is among the 5 smallest in EU, well below EU average of 22.4% (as of 2016). This suggests that **the employment gap between medium- and low-educated is less of a concern for Latvia than for most EU members states.**

Table 8 *Employment gaps by educational attainment: Latvia vs EU-28. Population aged 20-64, 2016*

	Males		Females		Total	
	Medium-Low	High-Medium	Medium-Low	High-Medium	Medium-Low	High-Medium
Employment gaps (% points)						
Latvia	12.9	14.9	18.3	21.2	14.3	17.4
EU-28	13.6	9.9	22.3	14.5	18.0	11.8
Number of EU member states with a larger gap than in Latvia						
	16	5	22	5	20	5
Employment rate (%) at the lower end of the gap						
	Low	Medium	Low	Medium	Low	Medium
Latvia	60.0	72.9	46.4	64.7	54.8	69.1
EU-28	63.6	77.2	43.4	65.7	53.6	71.6
Number of EU member states with a lower employment rate than in Latvia						
	10	7	17	14	17	13

Sources: Calculation with Eurostat data.

On the other hand, **the employment gap between the high- and medium-educated in Latvia is the 6th largest among EU member states** (both for males and females, as well as in general, see Table 8). At least for males, this can be attributed to low employment rate among the medium-educated (the 8th lowest in EU, 4.3 points below EU average) rather than unusually high employment of high-educated.

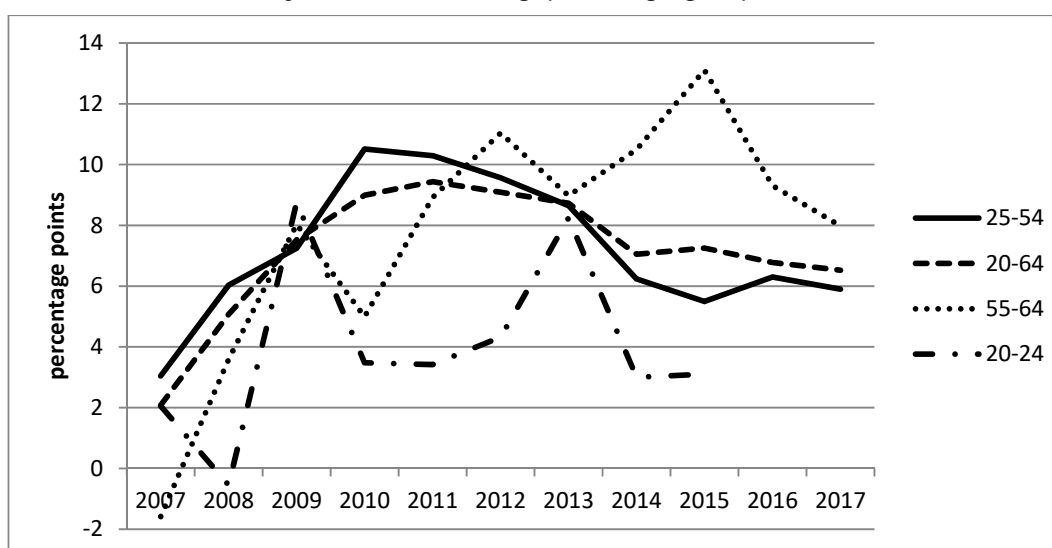
However, **given that almost two-thirds of males aged 20-64 are medium-educated, this should be seen as a general low employment problem rather than a problem of employment disparities.**

3 In-depth analysis of the ethnic employment disparities

3.1 Ethnic employment gaps by age and gender

Figure 18 compares the ethnic employment gaps for three age groups: (i) prime-age (25-54); (ii) population aged 55-64 (i.e., those in pre-retirement age or early retirement, as well as and recent retirees⁴); (iii) population aged 20-64 (working-age population without teenagers). In addition, the gap in NEET rates between minority population and ethnic Latvians aged 20-24 is shown in the same Figure. **During the whole period of 2007-2017, the ethnic employment gaps for the prime-age and for those aged 20-64 are of similar size and feature similar (counter-cyclic) dynamics.** This justifies restricting our attention to the age group 20-64 in the following sections. However, **the gap for the prime-age seems to be somewhat more sensitive to the business cycle.**

Figure 18 Latvians - Minority ethnic employment gaps for age groups 25-54, 55-64 and 20-64 and Minority - Latvians NEET gaps for age group 20-24, 2007-2017



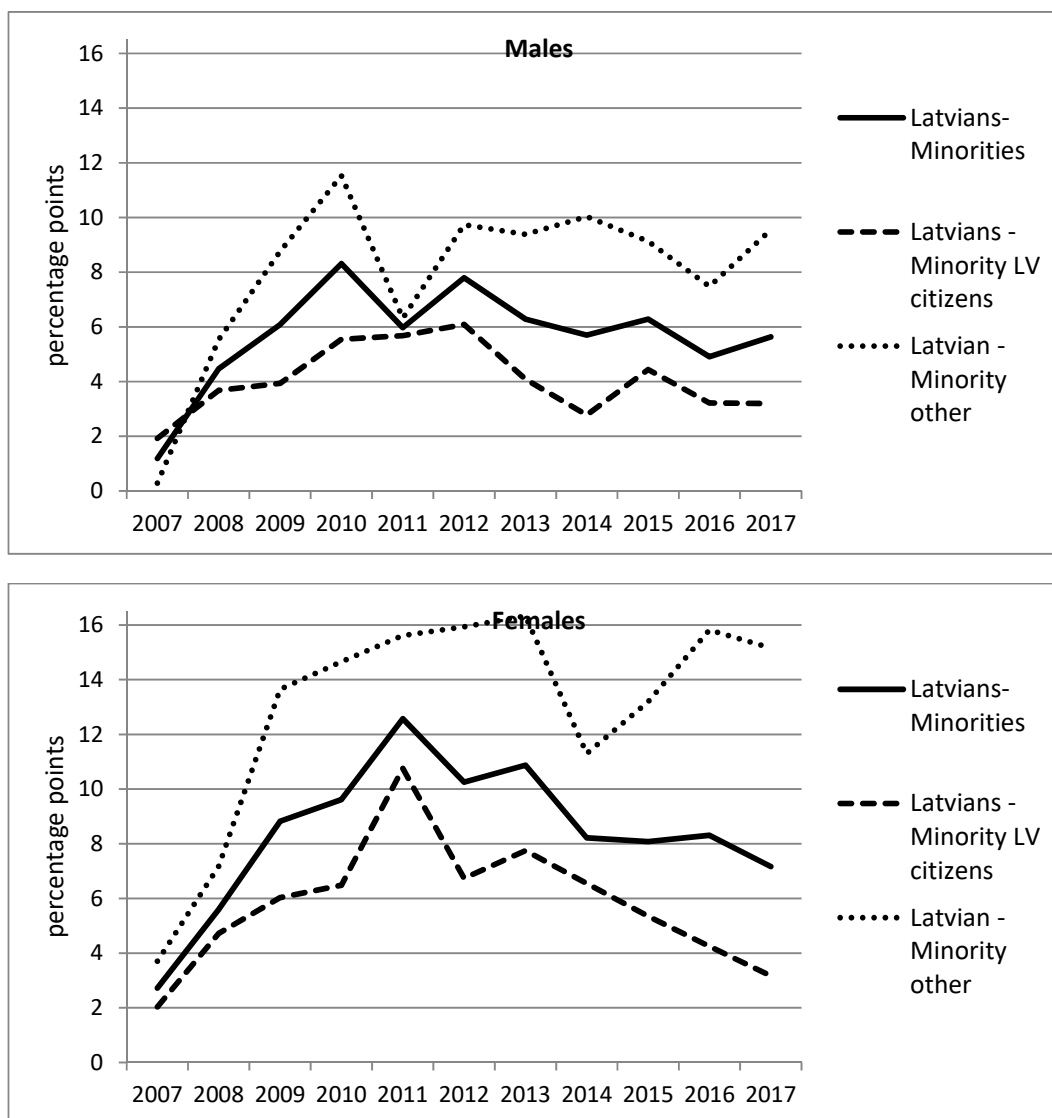
Notes: NEET rate is the share of youth (here - aged 20-24) not in employment, education and training. All positive gaps shown in the Figure are statistically significant. Sources: Calculation with Latvian LFS microdata (2007-2015) and data provided by Statistics Latvia. Data for 2017 are based on the first three quarters.

Recently (in 2014-2017), the ethnic gap in the older segment (55-64) is substantially larger than in the prime-age group. For the youth, the ethnic NEET gap (which refers to the share of youth not in employment, education and training) has a clearer interpretation than employment gap; it was small in 2007 and disappeared in 2008, but increased sharply during the crisis and in 2009-2015 fluctuated between 3 and 8 points (Figure 18).

⁴ During the period under consideration (2007-2017), statutory retirement age in Latvia varied between 62 to 63 years for males and between 61 and 63 years for females, while early retirement was possible by two years earlier.

The overall ethnic employment gap is a weighted average of two citizenship-specific ethnic gaps, all shown in Figure 19, separately for males (top panel) and females (bottom panel).

Figure 19 Latvians - Minority ethnic and citizenship employment gaps by gender. Population aged 20-64, 2007-2017



Sources: Calculation with Latvian LFS microdata (2007-2015) and data provided by Statistics Latvia. Data for 2017 are based on the first three quarters.

Immediately before the crisis (in 2007), the *purely ethnic employment gap* (the one between ethnic Latvians and minorities - Latvia's citizens) was small (2 points) for both males and females, while the *citizenship employment gap* (between ethnic Latvians and minority population without Latvia's citizenship) was absent for males and modest (4 points) for females (Figure 19).

The purely ethnic gap tripled by 2010 for males and by 2009 for females. For males, it stayed at 6 points for three years (2010-2012), while for females,

this gap fluctuated between 6 and 10 points for six years (2009-2014). Recently, however, the purely ethnic gap declined for both genders; in 2016-2017 it was slightly above 3 points (Figure 19).

The citizenship employment gap increased explosively between 2007 and 2010: from zero to almost 12 points for males and from 4 to 15 points for females (Figure 19). In the following 7 years, despite stable growth of GDP and average employment rate (Figure 11), the citizenship employment gap fluctuated around 9 points for males and around 15 points for females, without a clear decreasing trend (Figure 19).

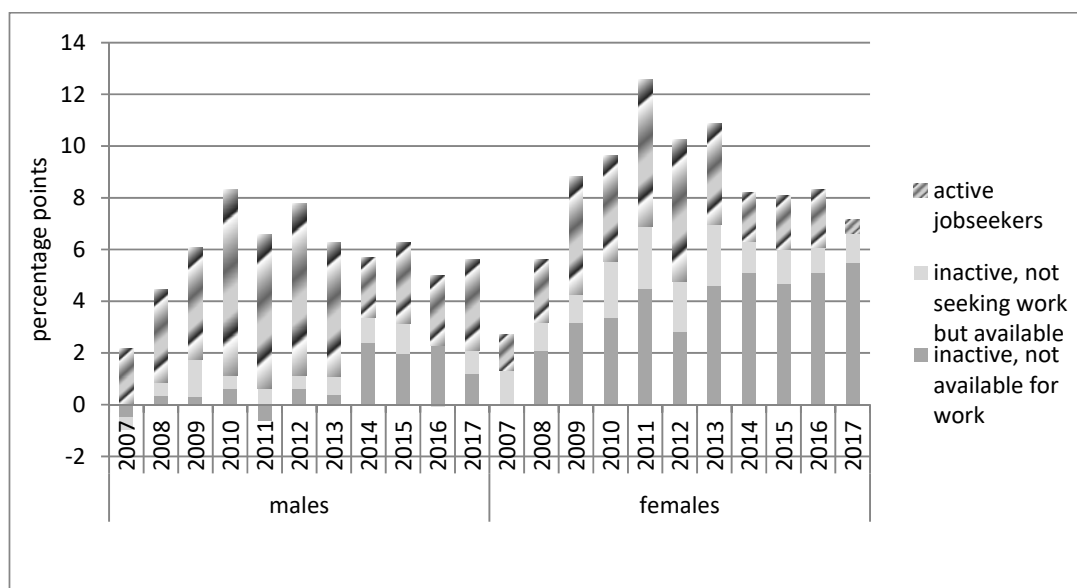
Working-age individuals out of work can be divided into three broad categories: (i) *active jobseekers* (a.k.a. unemployed according to the ILO definition);

(ii) individuals not seeking job actively which nevertheless are willing to work and would be available within two weeks if a suitable job is offered (hereafter - *inactive available for work* or *available for work but not seeking*)⁵.

(iii) inactive individuals not available for work.

Figure 20 provides evidence that the shares of each of these three groups are larger among minorities than among ethnic Latvians. In other words, **open unemployment, hidden unemployment and other inactivity all contributes to the ethnic employment gap, with the largest contribution for males being by unemployment, but for females (since 2013) - by inactivity.**

Figure 20 Latvians - Minority ethnic employment gap by gender and source. Population aged 20-64, 2007-2017



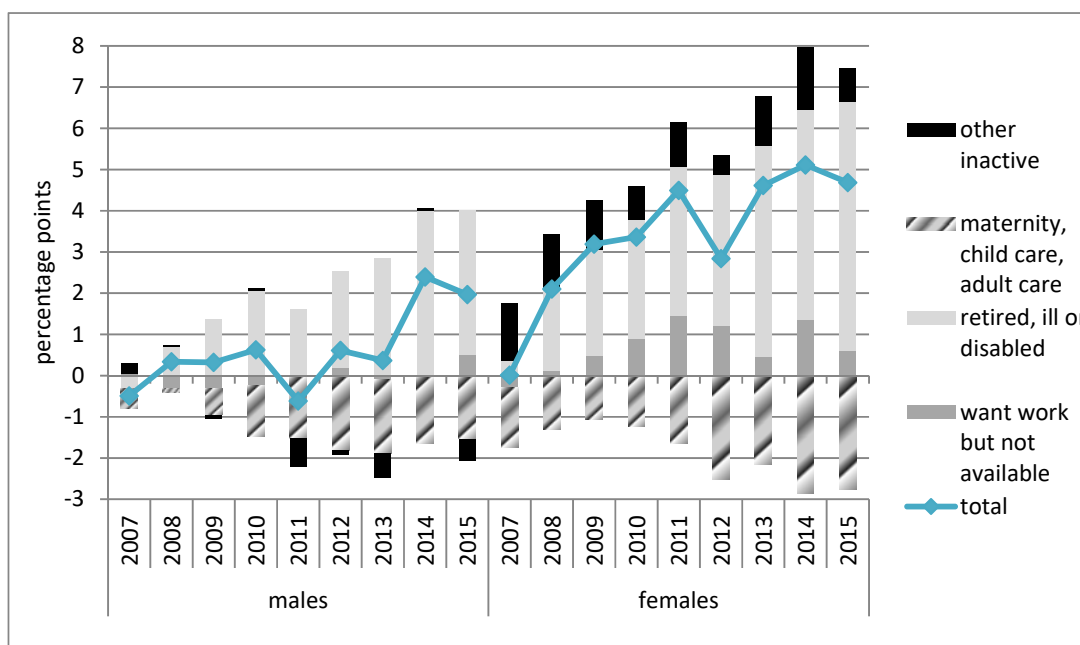
Sources: Calculation with Latvian LFS microdata (2007-2015) and data provided by Statistics Latvia. Data for 2017 are based on the first three quarters.

⁵ According to Eurofound (2017) this category accounted for about 9 million people in the EU in 2015, thus representing one of the largest segments of labour market slack, or unutilised labour.

From the perspective of unutilised labour, of immediate interest are active jobseekers and inactive available for work. The latter category, according to Eurostat definition (see Eurofound 2017) belongs to *potential additional labour force*. Another (much smaller) part of potential additional labour force includes those seeking employment but not available within two weeks; in Latvia, this group accounts for just 0.4% of population aged 20-64, with a very small variation by ethnicity, so we do not consider it separately in what follows.

Inactive not available for work within two weeks are not a homogeneous group; in particular, a substantial proportion of them are willing to work and thus have some attachment to the labour market (although formally do not belong to the potential additional labour force). As seen in Figure 21, the share of this group is slightly (by 0.5 to 1 point) larger among minority females than among their Latvian counterparts, while no such difference is found among males. **The main driver of the ethnic inactivity gap, however, is substantially larger proportion of retired, sick and disabled among minority working-age population than among ethnic Latvians** (Figure 21).

Figure 21 Contribution of inactive not available for work to the ethnic employment gap, by gender and type of inactivity. Population aged 20-64, 2007-2015

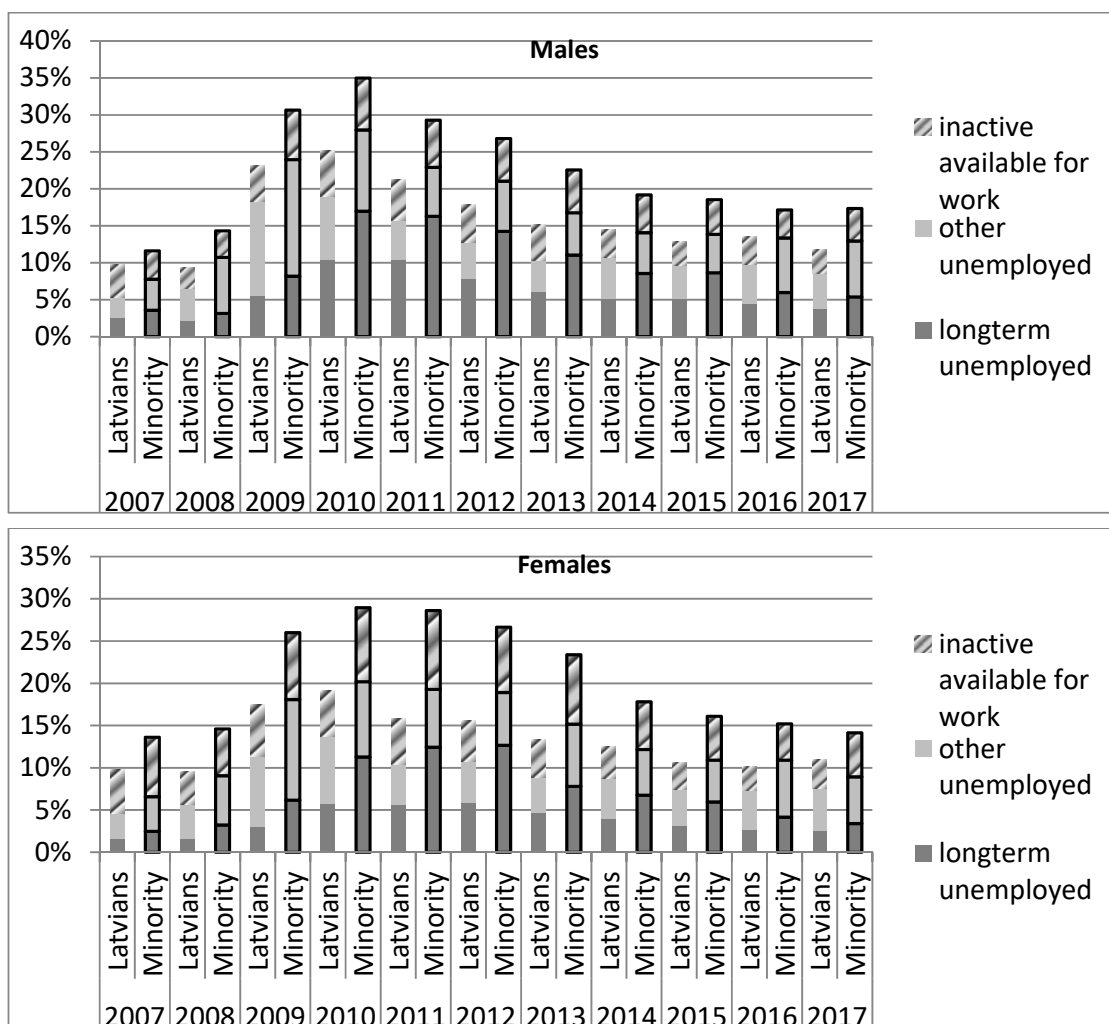


Notes: The "total" series coincides (for 2007-2015) with series "inactive, not available for work" in Figure 20. Sources: Calculation with Latvian LFS microdata.

3.2 Ethnic and regional unemployment disparities

As was shown in Figure 20, one of the reasons behind the ethnic employment gap is significantly higher proportions of open and hidden unemployment among minority population than among ethnic Latvians. Figure 22 presents evolution of the rates of three types of unemployment among ethnic Latvians and minority population (the rates are measured, as usual, in per cent of the labour force).

Figure 22 Open and hidden unemployment as percentage of labour force, by gender and ethnicity. Population aged 20-64, 2007-2017

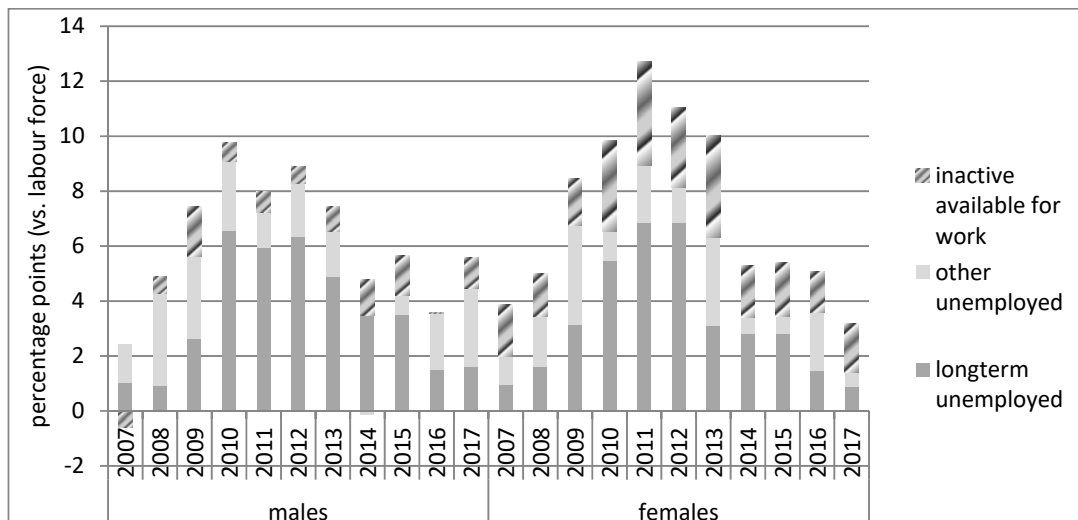


Notes: Inactive available for work are potential additional labour force members. It is common to measure the size of this potential labour force as percentage of the "standard" labour force. Sources: Calculation with Latvian LFS microdata (2007-2015) and data provided by Statistics Latvia. Data for 2017 are based on the first three quarters.

In all years and for both genders, long-term and total open unemployment rate, as well as hidden unemployment rate (i.e. inactive available for work as percentage of the labour force) are higher among minority population (Figure 22).

Resulting **ethnic unemployment gap** (decomposed into three components) is displayed in Figure 23. It features an **inverse U-shaped dynamics, peaking together with unemployment rate (in 2010) for males and a year later for females.**

Figure 23 Ethnic unemployment gap, by gender and unemployment type, 2007-2017

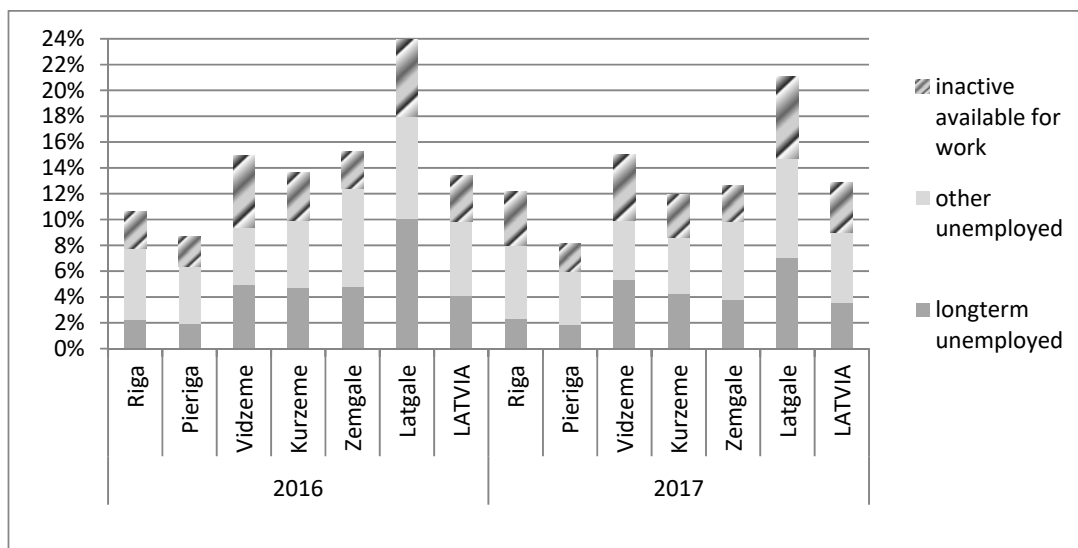


Notes: See Figure 21. Sources: Calculation with Latvian LFS microdata (2007-2015) and data provided by Statistics Latvia. Data for 2017 are based on the first three quarters

In the last four years of observation (2014-2017), the total (open plus hidden) unemployment gap by ethnicity varied between 4 and 6 points for males and between 3 and 5.5 points for females (Figure 23).

Figure 24 compares unemployment across Latvia's regions in 2016-2017. Latgale stands out with both long-term unemployment and hidden unemployment rates well above those found elsewhere. However, in 2017 long-term unemployment rate in Latgale fell by 3 points, while the average decline in Latvia was just 0.5 points.

Figure 24 Open and hidden unemployment by region, 2016-2017 (% of labour force)



Sources: Calculation with data provided by Statistics Latvia.

3.3 Multivariate analysis of the ethnic and regional employment disparities

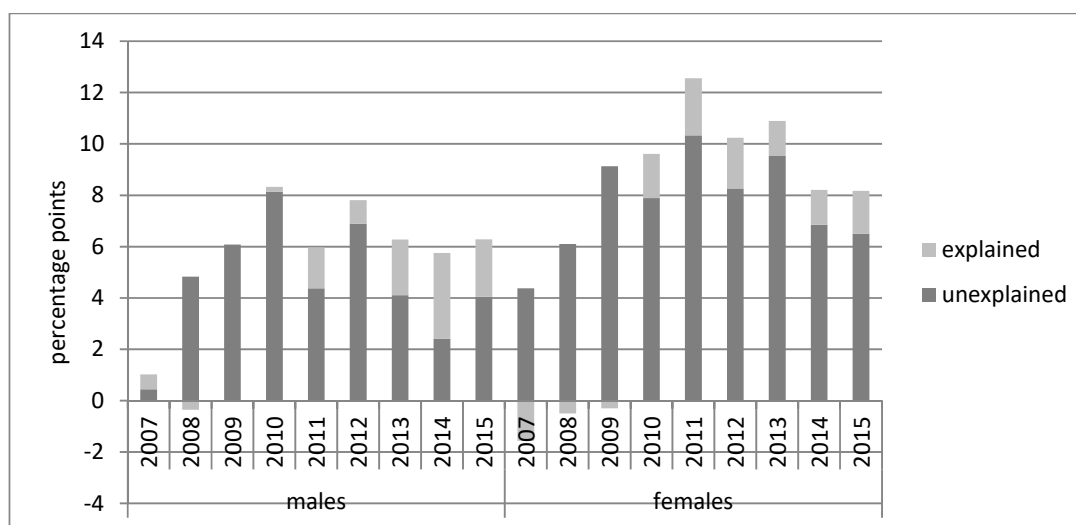
This section presents results of econometric analysis. We show that effects of ethnicity and citizenship remain statistically significant and sizable also after controlling for a rich set of personal characteristics. Furthermore, we compare the size of these effects with the size of other main determinants of employment, such as education level, region, and the level of GDP⁶.

Finally we shed light on behavioural channels of ethnic and regional employment disparities by looking at the ethnic and regional effects on:

- (i) non-availability for work among working-age population
- (ii) not seeking work among those available for work
- (iii) unemployment among labour force members.

According to Oaxaca-Blinder decomposition⁷ results presented in Figure 25, **during the crisis years 2008-2010 the ethnic employment gaps for both genders were completely (in 2008-2009) or almost completely (for females in 2010) unexplained by differences between two groups in education level, age, citizenship, presence of spouse/partner and children, being disabled, student or retiree, as well as region and urbanisation level.**

Figure 25 Decomposition of ethnic employment gaps into explained and unexplained parts. Population aged 20-64 by gender, 2007-2015



Notes: Oaxaca-Blinder decomposition based on linear probability model. Control variables: education level (4 categories); age and its square; presence of a spouse or cohabiting partner and his/her education level; living with own or partner's children aged < 15 and, in addition, living with children aged < 5; indicators for being disabled, student and retiree; region (6 categories) and urbanisation level (2 categories); citizenship (2 categories). Sources: Calculation with Latvian LFS microdata

Moreover, **even in the post-crisis years, most of the total gap remains unexplained**: for males - three quarters in 2011-2013 and more than a half in 2014-

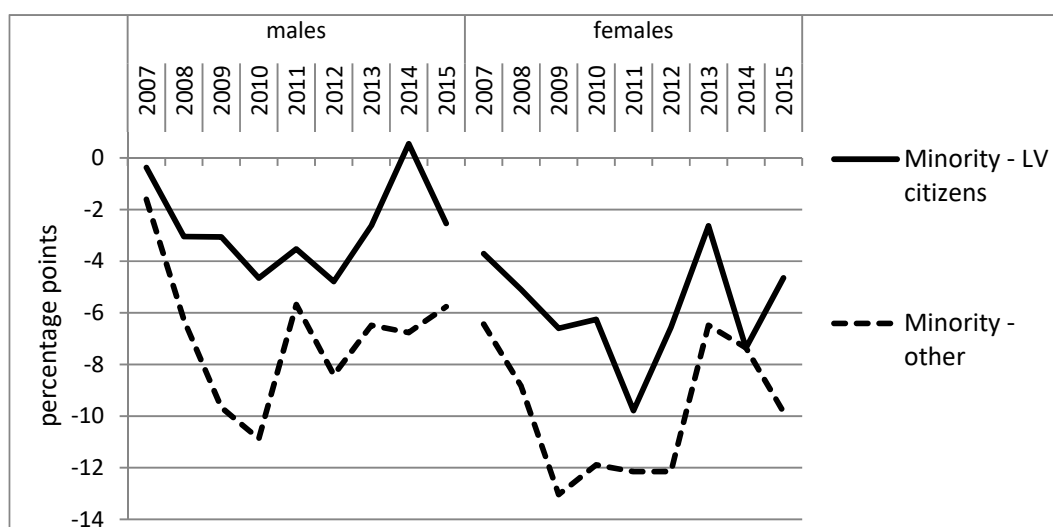
⁶ GDP is lagged one quarter to avoid reverse causality

⁷ See Oaxaca (1973), Blinder (1973), Cotton (1988), Neumark (1988), Oaxaca and Ransom (1994), Yun (2005) and Jahn (2008).

2015, while for females - over 80% in 2011-2015 (Figure 25). According to **detailed decomposition results** (available on request), **the unexplained ethnic gap is statistically highly significant in 2008-2015 for males and in 2007-2015 for females**. By contrast, **the explained part of the gap is positive and statistically significant only in 2013-2015 for males and in 2010-2015 for females**.

Complementary evidence from probit models is presented in Figure 26. After controlling for a rich set of personal characteristics, marginal effects of ethnicity and citizenship on probability of employment are largely in line with the raw gaps presented earlier in Figure 19: **other things equal, non-Latvians, especially noncitizens, are significantly less likely to be employed**. The size of these effects peaked in 2010 among males (at 5 points for citizens and 11 points for noncitizens) and in 2011 among females (at 10 points for citizens and 12 points for noncitizens). By 2015 (the last year for which the results are available), the effects declined but remained non-negligible: 2 points for minority citizens and 6 points for noncitizens among males; 5 points for minority citizens and 10 points for noncitizens among females.

Figure 26 Estimated marginal effects of ethnicity and citizenship on probability of employment. Population aged 20-64, by gender, 2007-2015

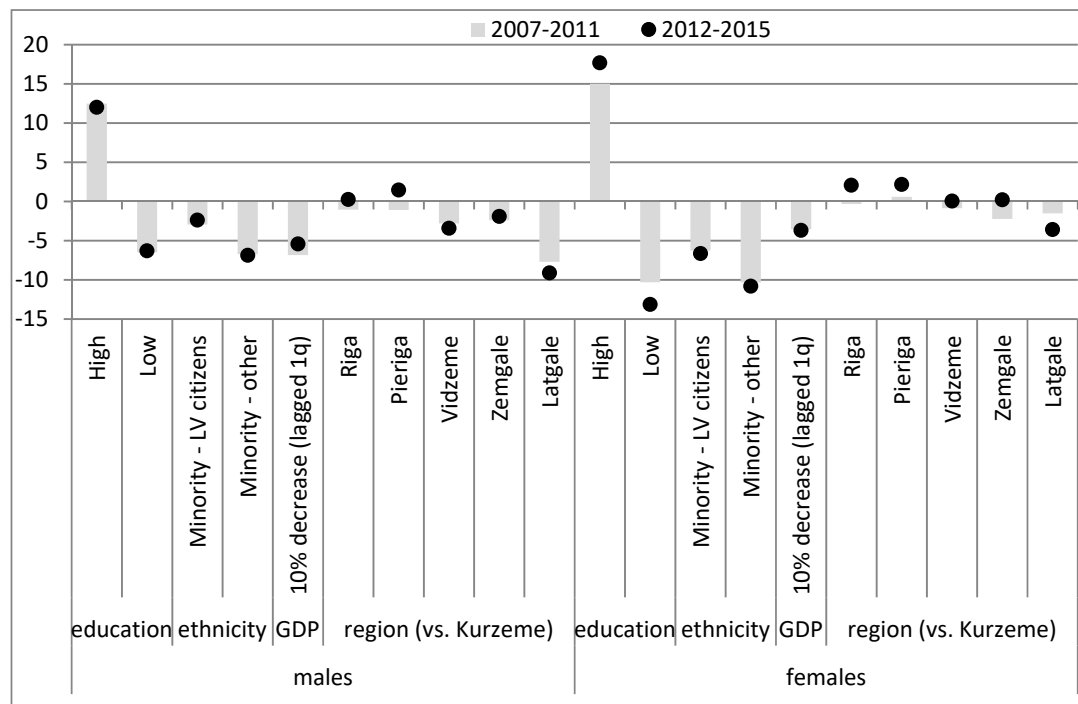


Notes: Marginal effects from probit models. All effects (excl. those with size < 2 points) are statistically significant at 0.05 or 0.01 level. Control variables: Those mentioned in the Notes to Figure 25 and, in addition, ethnicity (2 categories).

Sources: Calculation with Latvian LFS microdata.

How big are the ethnic and regional effects in the labour market in comparison with other important determinants of employment, such as educational attainment and the state of economy? Figure 27 sheds light on this question by presenting marginal effects from probit models of employment. The analysis is conducted separately for 2007-2011 and 2012-2015. The former period includes the pre-crisis year 2007, the onset of the crisis in 2008, the severe recession years 2009-2010, and the first year of recovery 2011. The latter period is the one of post-crisis growth.

Figure 27 Estimated marginal effects of selected determinants of employment. Population aged 20-64, by gender, 2007-2011 and 2012-2015



Notes: Marginal effects from probit models. Education, ethnicity and GDP effects are all significant at 0.001 level. Omitted categories: education - general secondary; ethnicity - Latvians. "High" refers to tertiary education, while "Low" - to education level below upper secondary (ISCED 0-2); vocational upper secondary education included in the models but its effects (3 to 4 points for males and 4 to 7 points for females) are not reported in the Figure to save space. For males, all regional effects (excl. Riga) are significant: Vidzeme and Latgale at 0.001 level, Zemgale at 0.01 level, Pieriga at 0.1 (0.05) level in the 1st (2nd) period. For females, Latgale is significant at 0.05 level or better in both periods, Zemgale - in the 1st period, Riga and Pieriga - in the 2nd period. Control variables not shown in the Figure: see Notes to Figure 25. Sources: Calculation with Latvian LFS microdata.

The first finding from Figure 27 is that **with the exception of regional disparities among females (which increased in the second period), the signs and sizes (as well as significance) of the employment effects of educational attainment, ethnicity, GDP level, and region are remarkably stable across two very different periods.**

For males and females alike, the **ethnic penalty for non-citizens is of the same (or similar) size as the effect of low education (in comparison with secondary general).** Moreover, this ethnic/citizenship effect is of the same size as that of a 10% drop in GDP for males and almost three times as big for females.

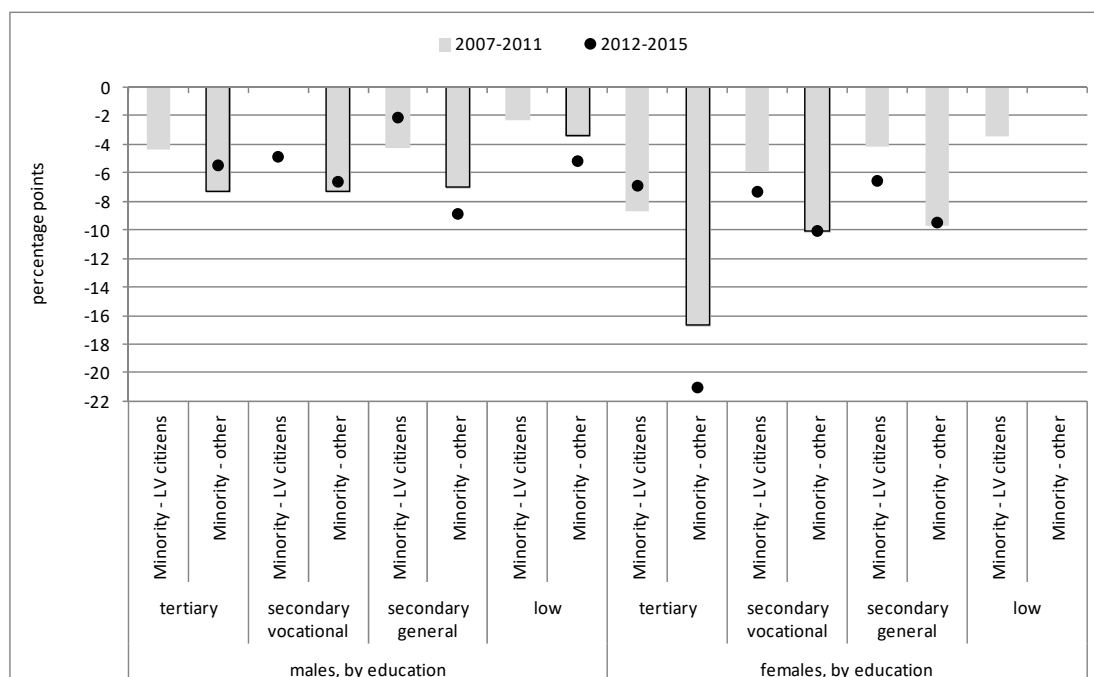
For females with Latvia's citizenship, the ethnic effect on employment is almost twice as big as the effect of a 10% drop in GDP, while for males with Latvia's citizenship the size of the ethnic effect is equivalent to a 4.3% drop in GDP (Figure 27). **Thus, the ethnic penalties in the labour market are large.**

In 2012-2015, males in Latgale, other things equal, faced employment probability by 9 to 11 points smaller than those in Kurzeme, Riga and Pieriga, and by 6 to 7 points smaller than in Vidzeme and Zemgale.

For females, the Latgale effect is smaller - both in absolute terms (-3.5 points vs. Vidzeme, Kurzeme and Zemgale) and relative to education and ethnic effects. However, for both genders the labour market penalty for living in Latgale is comparable in size with the effect of a 10% drop in GDP (Figure 27).

Next, we look at the ethnic effects by education level (Figure 28).

Figure 28 Employment effects of ethnicity and citizenship, by education level. Population aged 20-64, by gender, 2007-2011 and 2002-2015

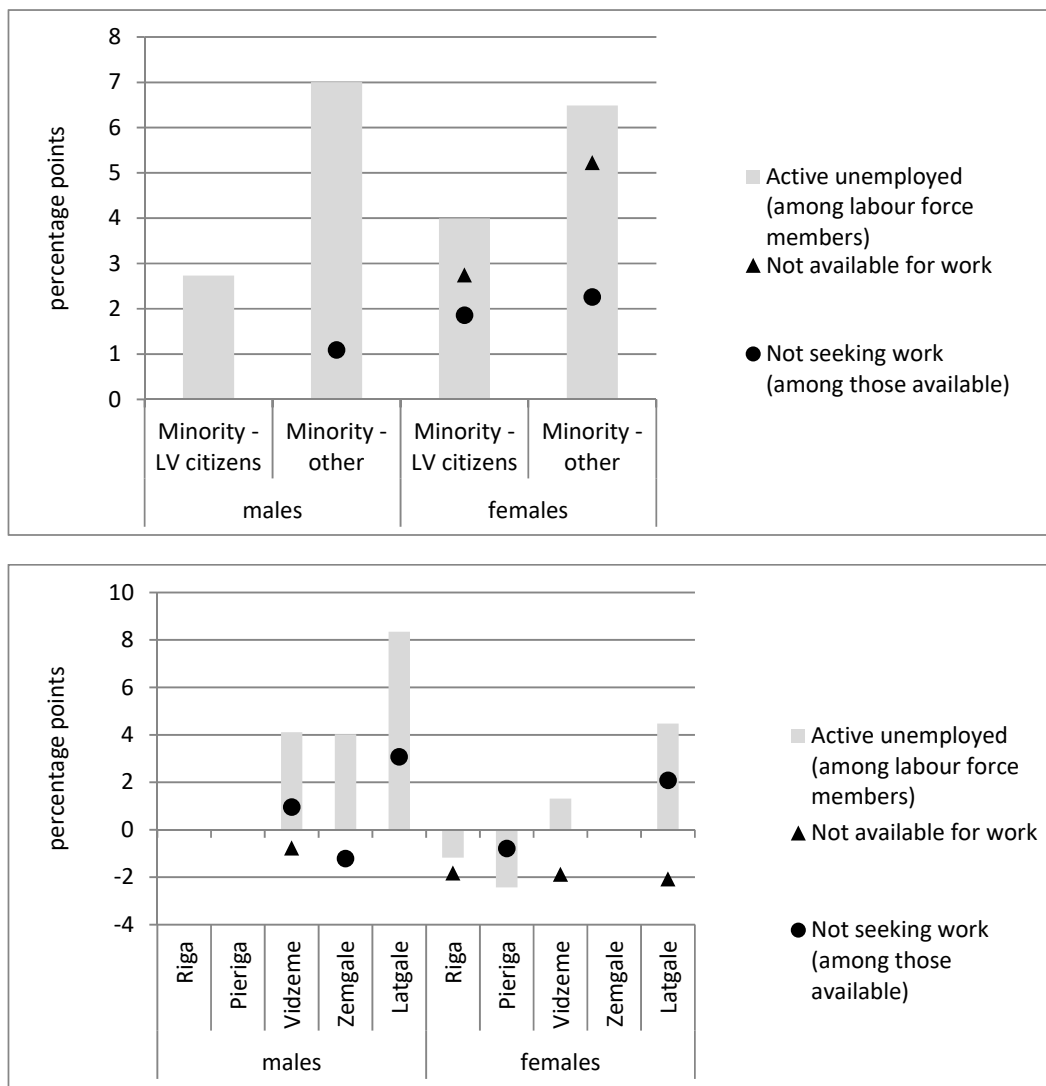


Notes: Only statistically significant effects are shown. Effects for Low education level (mostly insignificant) are not shown. Sources: Calculation with Latvian LFS microdata

Significant and persistent ethnic effects on employment are found at tertiary and upper secondary education levels among females (both with and without Latvia's citizenship), as well as at all education levels among males - non-citizens. Among tertiary educated males the effects are smaller in the post-crisis period (2012-2015) than in the period which covers the crisis (2007-2011). **The citizenship effect is stronger than the pure ethnic effect at all education levels for males and among all but low-educated females.** Across all education levels and genders, the largest effect (21 points) is found in 2012-2015 among tertiary educated females without Latvia's citizenship.

Figure 29 turns to behavioural channels of ethnic and regional employment disparities (we are talking about channels rather than reasons here because our models are not capable to identify ethnic or language discrimination and regional disparities in labour demand).

Figure 29 Marginal effects of ethnicity, citizenship and regions on probability of inactivity (by type) and unemployment. Population aged 20-64, by gender, 2012-2015



Notes: Marginal effects from probit models. Only statistically significant effects are shown. Control variables: education level (4 categories); age and its square; presence of a spouse or cohabiting partner and his/her education level; living with own or partner's children aged < 15 and, in addition, living with children aged < 5; indicators for being disabled, student and retiree; region (6 categories) and urbanisation level (2 categories); ethnicity and citizenship (3 categories); log(GDP) lagged 1 quarter. Sources: Calculation with Latvian LFS microdata

Figures 29 (top panel) provides evidence that **the main channel of ethnic employment disparities is that economically active minority individuals are more likely to be unemployed than their ethnic Latvian counterparts (other things equal).** In addition, minority females of working age feature lower propensity to be available for work and, if available, lower propensity to seek work (i.e., higher propensity to be discouraged) than ethnic Latvian females.

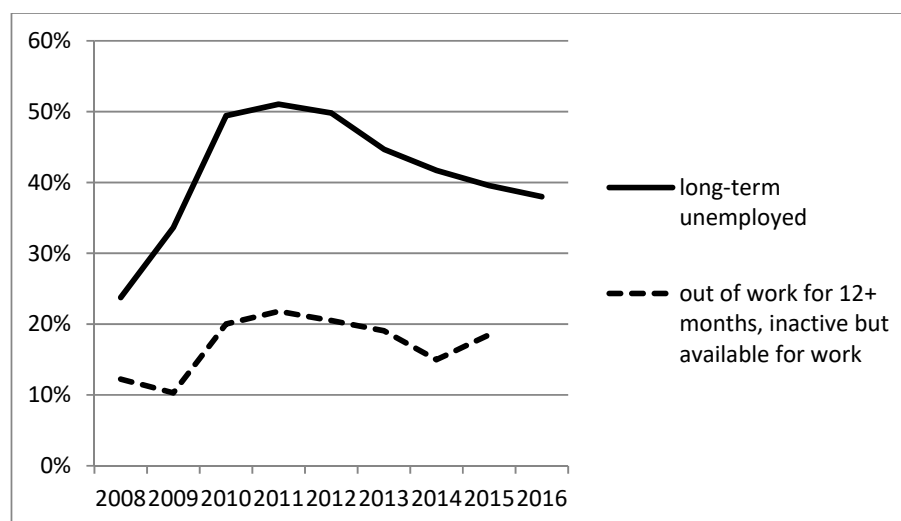
Figure 29 (bottom panel) suggests that **the main channels of lower employment in Latvia than elsewhere are unemployment among economically active individuals and (to a smaller extent) discouragement.**

4 The profile of long-term unemployment in Latvia

In this section, we present the profiles of long-term active and hidden unemployed based on the LFS data and, when data allows, compare with the profile of long-term registered unemployed.

The proportion of long-term unemployed registered with the Public Employment Service (PES)⁸ increased from just one-fourth in 2008 to one-half in 2010-2012, but more recently fell below 40% (Figure 30). On the other hand, about one-fifth of inactive (hidden) unemployed which are out of work for 12+ months and available for work are also registered (Figure 30); in other words, some of the registered long-term unemployed are not searching actively if the 4 week reference period is applied.

Figure 30 Proportion of registered unemployed among active and hidden long-term unemployed, 2008-2016



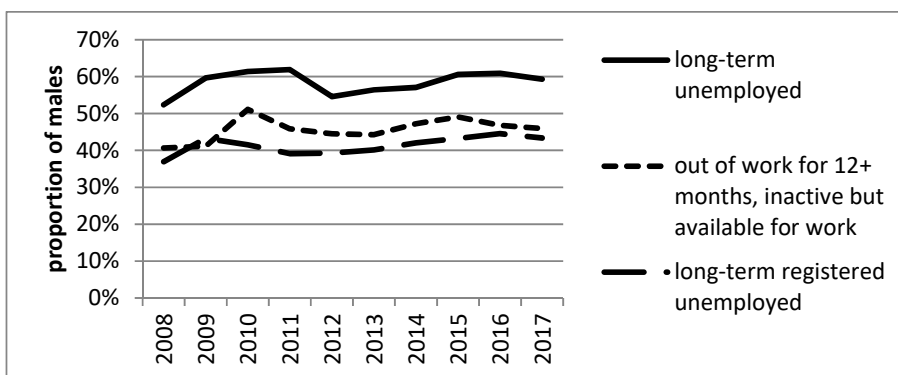
Sources: Calculation with Latvian LFS microdata

Detailed distribution of long-term registered unemployed by education level, certified Latvian language skills, ethnicity, age, disability, and major group of occupation in the last job is presented (separately for males and females) in Tables A1 -A2 in the Annex (the data describe situation at the end of the year for 2008-2017). For comparison, similar distributions of all registered unemployed are presented in Tables A3 -A4.

Males account for about 60% of long-term unemployed and for 45% to 50% of hidden unemployed out of work for a year or more. Among long-term registered unemployed, however, just 40% to 45% are males (Figure 31).

⁸ The Latvian PES is called State Employment Agency.

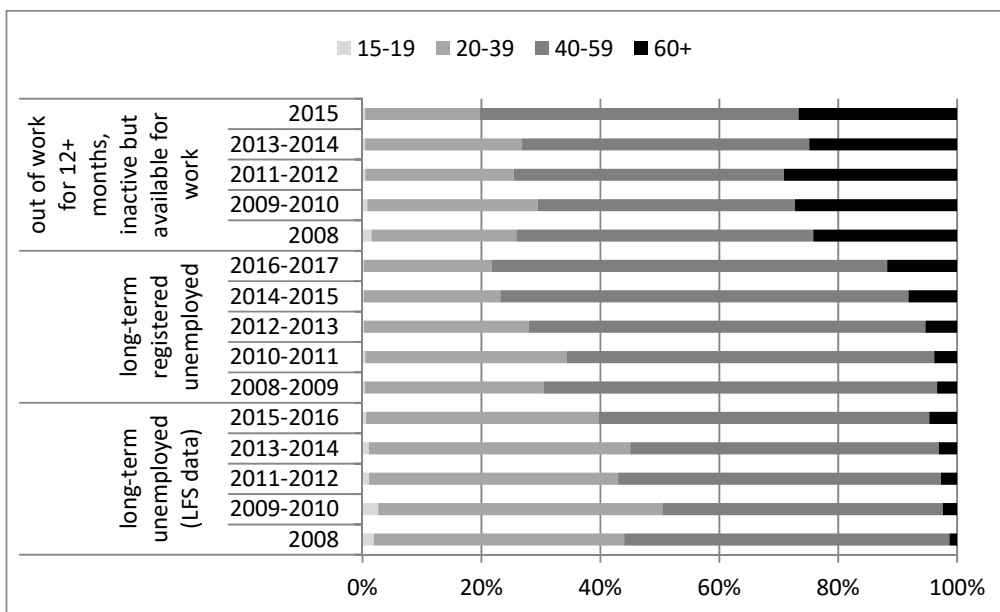
Figure 31 Proportion of males among long-term unemployed and individuals out of work for a year or more not searching but available for work, 2008-2017



Sources: Calculation with data provided by Statistics Latvia and the State Employment Agency, as well as with the Latvian LFS microdata

Age distribution of the three types of long-term unemployed is presented in Figure 32. It appears that **long-term unemployed recently tend to become older**: between 2009-2010 and 2015-2017, the **share of those aged 40+ increased** for 50% to 60% among long-term unemployed according to LFS data, from 66% to 78% among long-term registered unemployed, and from 71% to 80% among hidden unemployed out of work for more than a year. Moreover, **the share of seniors aged 60+ among long-term unemployed was steadily increasing between 2008 and 2017**.

Figure 32 Age distribution of long-term unemployed and individuals out of work for a year or more not searching but available for work, 2008-2017



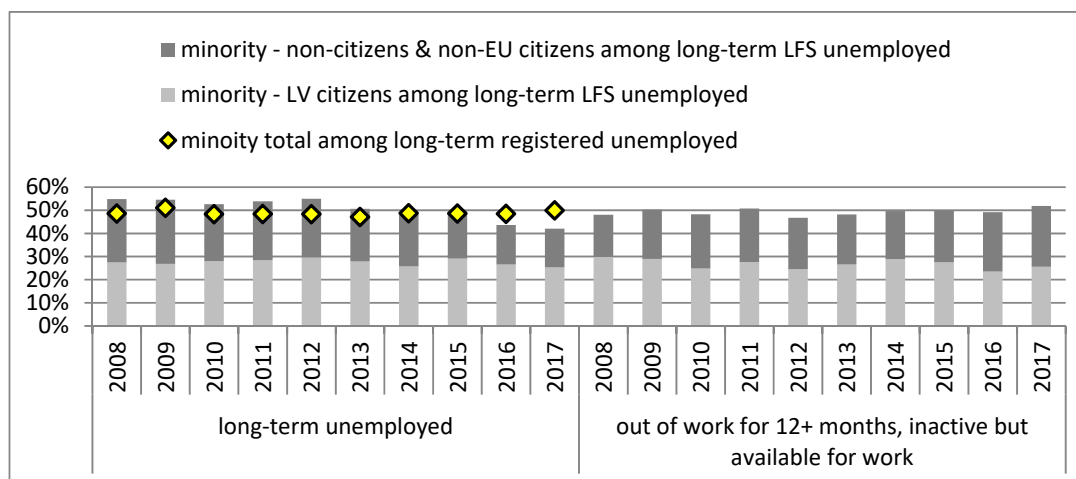
Sources: Calculation with Eurostat data, Latvian LFS microdata and data provided by the State Employment Agency.

Share of teenagers among long-term unemployed of all types most of the time is below 1%, and in remaining cases below 3% (Figure 32).

The share of **ethnic minorities** among long-term unemployed, according LFS data, was above 50% in 2008-2012, about 50% in 2013-2015 and about 43% in 2016-2017, while among long-term registered unemployed and among individuals out of work for a year or more not searching but available for work this share was about

50% throughout the whole period 2008-2017 (Figure 33). Thus, **minorities are strongly over-represented among both active and hidden long-term unemployed, as well as among registered long-term unemployed** (for comparison, the minority share in the labour force declined from 40% in 2008-2009 to less than 36% in 2016-2017).

Figure 33 Ethnic minority shares among long-term active and hidden unemployed, 2008-2017



Sources: Calculation with Latvian LFS microdata, data provided by Statistics Latvia, and data provided by the State Employment Agency.

In the remaining part of this section, we concentrate on recent long-term unemployed.

Long-term unemployed as a group are less educated than the labour force in general (Figure 34). In particular, just 10% of the long-term unemployed are tertiary- educated and over 20% are low-educated, while in the labour force (as of 2015) these proportions are 33% and 10%, respectively. Individuals with general secondary education are also over-represented among long-term unemployed, while it is not the case for those with upper secondary vocational education (Figure 34).

Long-term hidden unemployed (those out of work for 12+ months who are available for work though not searching) **are more educated than long-term unemployed but less educated than the labour force** (Figure 34).

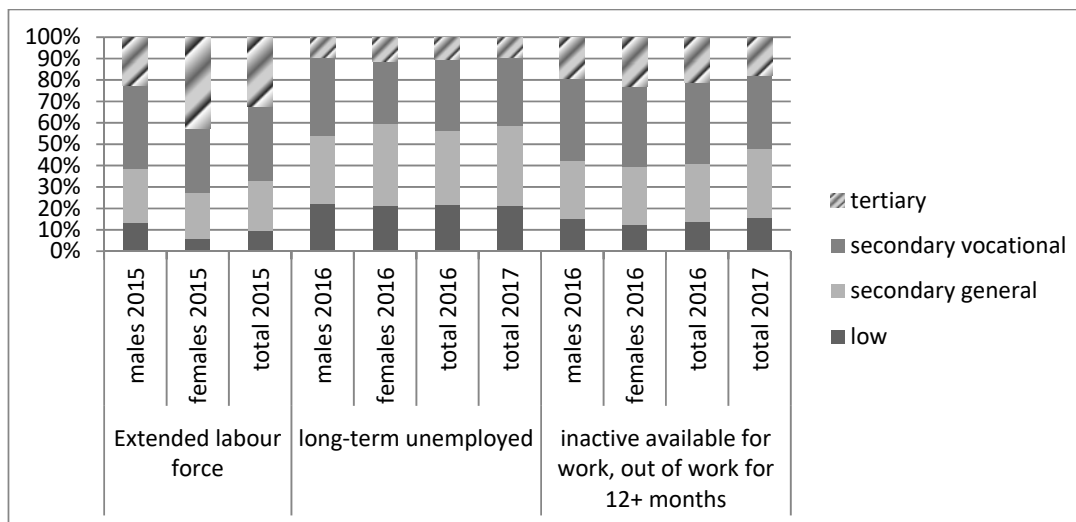
Long-term registered unemployed of both genders feature a stable distribution by education level: one-fifth to one-fourth are low-educated; secondary general and vocational education together account for about 70% of male long-term unemployed and two-thirds of their female counterparts; about 10% of long-term unemployed are tertiary-educated (Figure 35).

In comparison with all active long-term unemployed, their registered counterparts feature slightly larger share of low-educated and significantly larger share of those with vocational education, while the share of secondary general education is smaller (Figures 34-35).

Graduates of the STEM fields (sciences, technologies and engineering, and mathematics) account for over 60% of long-term unemployed with vocational or tertiary education; for males this proportion is almost 80%, while for females it exceeds one-third. These proportions are well above similar proportions for the labour force in general (Figure 36).

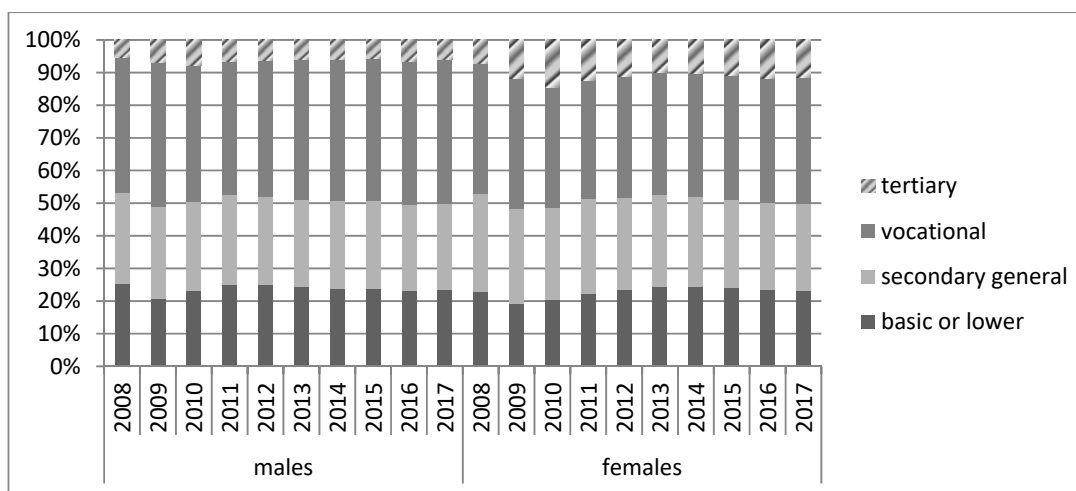
This finding is especially striking given the shortage of skilled labour in these fields (Hazans 2017: Section 4); note that in February 2018 Latvian government has approved a list of occupations (mainly those requiring education in one of the STEM fields) in which non-EU foreigners can receive work permits easier and faster than before (see Liepina 2018). Hudenko (2017, based on survey of readers letters and comments responding to DELFI (2017)), provides evidence that some local professionals with experience and/or education in listed occupations either are out of work or work in other occupations (for which some of them are over-qualified); two often quoted (and sometimes interacted) reasons are; (i) too strict formal requirements in terms of Latvian language skills; (ii) age 55+.

Figure 34 Long-term active and hidden unemployed by education level, 2016-2017



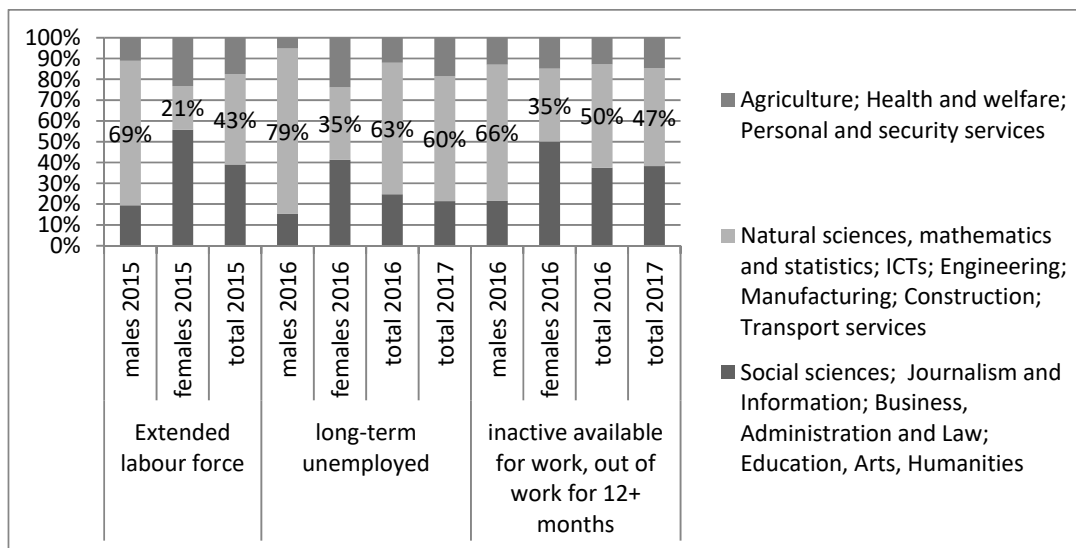
Notes: For comparison, distribution of (extended) labour force by education is presented alongside. Extended labour force includes employed, unemployed, as well as inactive individuals willing to work and available for work in two weeks. Sources: Calculation with Latvian LFS microdata and data provided by Statistics Latvia.

Figure 35 Long-term registered unemployed by gender and education level, 2008-2017



Notes: "Vocational" here refers to basic, secondary and post-secondary (no-tertiary) vocational education. Data refer to the end of the year (for 2017 - end of October). Sources: Calculation with data provided by the State Employment Agency.

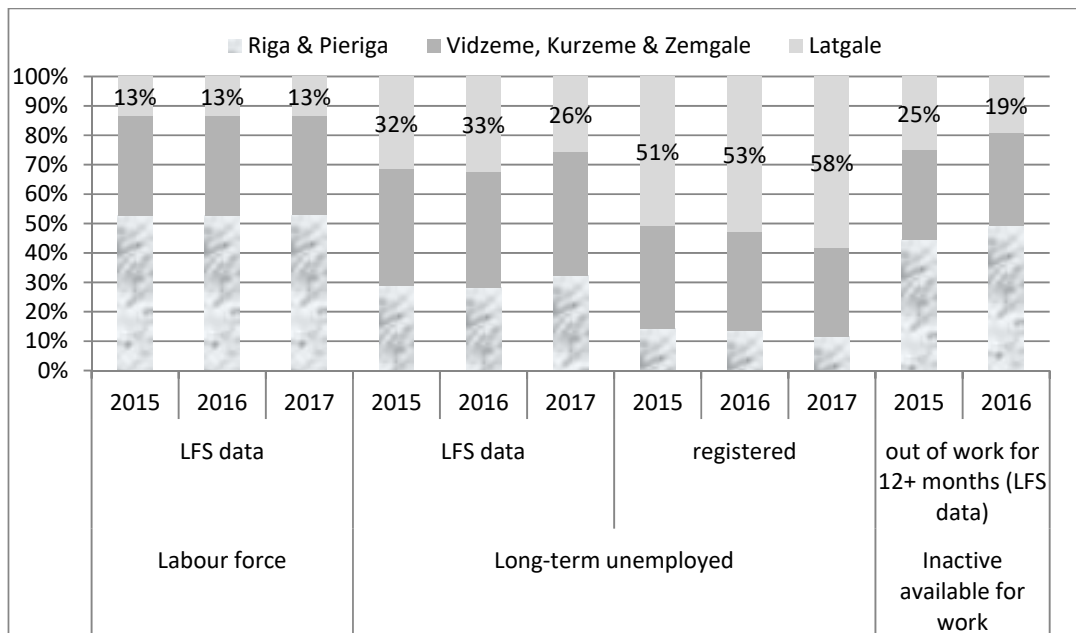
Figure 36 Long-term active and hidden unemployed with vocational or tertiary education by field of studies, 2015-2017



Notes: For comparison, distribution of labour force members with vocational or tertiary education by field of education is presented alongside. Sources: Calculation with the Latvian LFS microdata and data provided by Statistics Latvia.

Distribution of different types of long-term unemployed by region of residence (Figure 37) reveals that the share of Latgale is much higher than its share in the labour force. This is in line with econometric evidence in Figure 29 (lower panel).

Figure 37 Long-term active and hidden unemployed by residence region, 2015-2017



Notes: For comparison, distribution of labour force by region of residence is presented alongside. Sources: Calculation with Latvian LFS microdata and data provided by Statistics Latvia

5 What categories of registered unemployed are more likely than others to become long-term unemployed?

Recall that the focus of this paper on the ethnic minorities, residents of the Latgale region, and the low-educated. As was shown in Figures 22-24 (as well as 33-34 and 37), economically active members of these groups are more likely than to be long-term unemployed than other labour force members. In this section we concentrate on the following questions:

(i) are registered unemployed which belong to ethnic minorities (in particular, those with poor or not certified knowledge of Latvian language) more likely than others to become long-term unemployed?

(ii) are the low educated registered unemployed more likely to become long-term unemployed than those with vocational, secondary general or tertiary education?

(iii) are registered unemployed living in Latgale region more likely to become long-term unemployed than others?

(iv) how do the shares of the above-mentioned vulnerable groups among the long-term unemployed change over time and how does it compare to the time trends of the shares of these groups among all registered unemployed?

To answer these questions, we (following Hazans 2012, 2013, 2016, 2017) use the **selectivity index**

$$SI(G) = \ln(G_{LTU}(t)/G_U(t-1)),$$

where $G_{LTU}(t)$ and $G_U(t-1)$ are shares of minorities (or other group G of interest - e.g. low-educated or residents of Latgale) among long-term registered unemployed in year t and all registered unemployed in year $t-1$, respectively. Thus, the **selectivity index $SI(G)$ is positive if registered unemployed belonging to the group G have higher than others probability to stay unemployed for at least one more year.**⁹ Selectivity index above 0.15 (respectively, 0.25; 0.35; 0.50) can be loosely interpreted as indicating moderate (respectively, substantial; large; very large) differences between groups in this respect.

5.1 Unemployed with insufficient Latvian language skills

Over one-third of long-term registered unemployed males and one-fifth to one-fourth of their female counterparts lack certification of state language skills or have the lowest level certificate¹⁰; these shares are stable since 2008 for males, while for females they are slowly but steadily growing since 2009 (Figure 38).

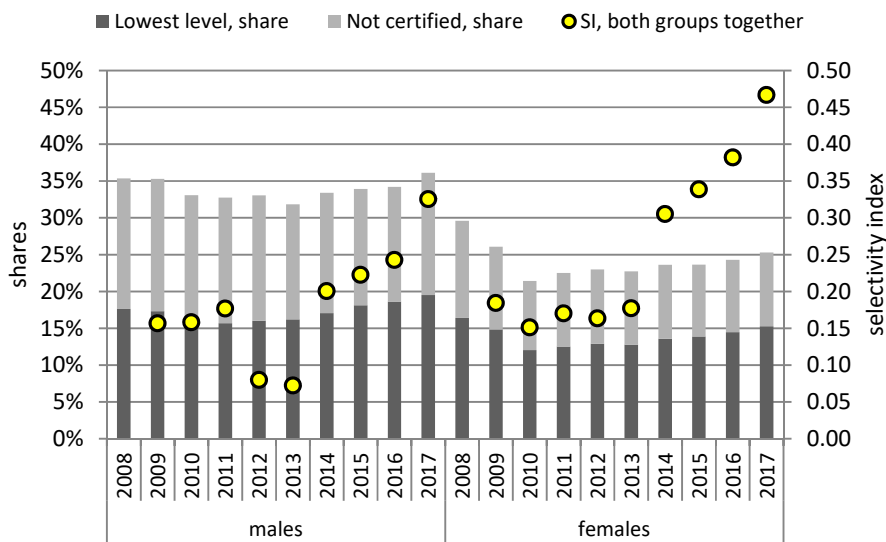
According to the selectivity index, **registered unemployed with no certification of state language skills or with the lowest level certificate are, on average, more likely than others to become long-term unemployed.** After a sharp increase in 2014, this effect became substantial for both genders, and for females in 2016-2017 it was really large (Figure 38)¹¹.

⁹ A similar (although not identical) conclusion can be made if the proportion of long-term registered unemployed among all registered unemployed for group G is higher than for the whole population.

¹⁰ Certification of the state language skills follows the Common European Framework of Reference for Languages (Council of Europe 2011). The lowest level thus includes categories A1, A2.

¹¹ For example, among registered unemployed females with no certification of state language skills or with the lowest level certificate by the end of 2015, 42% were still registered unemployed by the end of 2016, while among other females this rate was just 26%.

Figure 38 Individuals without certified Latvian language and with the lowest level certificate among long-term registered unemployed: Shares and selectivity index (SI) of selection from unemployment into long-term unemployment, 2008-2017, by gender

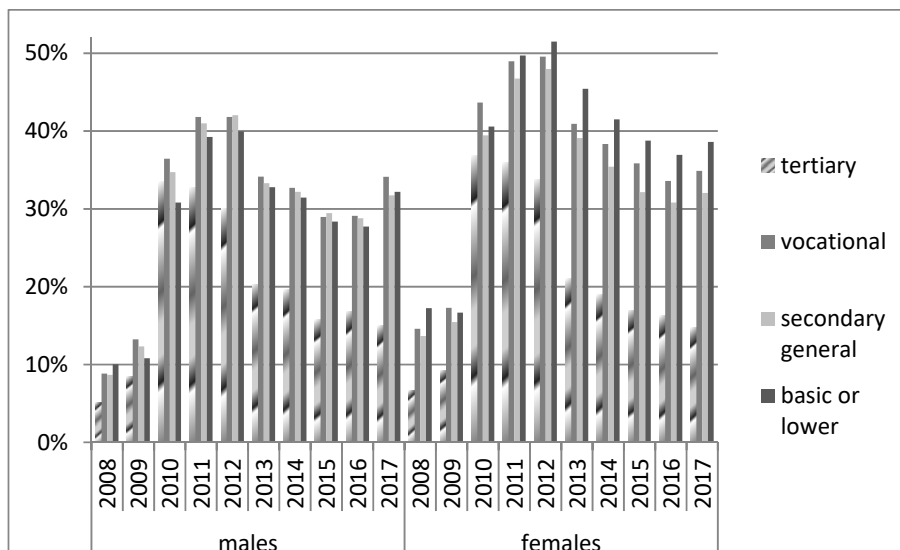


Notes: Data refer to the end of the year (for 2017 - end of October). Sources: Calculation with data provided by the State Employment Agency.

5.2 Low-educated unemployed

As a consequence of the crisis, **proportion of long-term unemployed among all registered unemployed sky-rocketed in 2010 for all skill groups and declined very slowly for all but tertiary-educated** (Figure 39). Moreover, these proportions are almost the same among those with low, secondary general and vocational education (and much lower for university graduates), see Figure 39.

Figure 39. Proportions of long-term unemployed among all registered unemployed, by gender and education level, 2008-2017

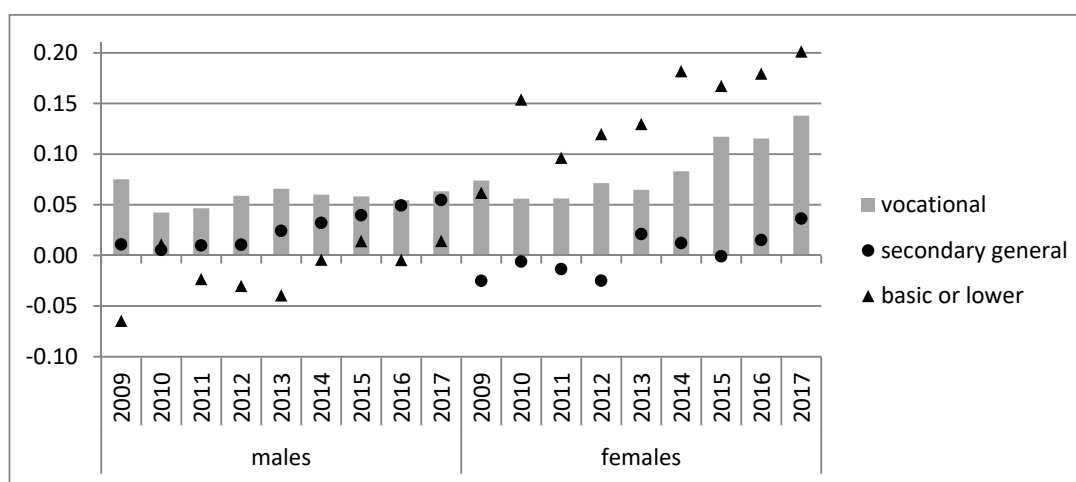


Notes: Data refer to the end of the year (for 2017 - end of October). Sources: Calculation with data provided by the State Employment Agency.

This suggests that **low-educated and secondary-educated registered unemployed have similar probabilities to stay (registered) unemployed for more than a year**. Selectivity index (Figure 40) confirms that this is the case for males, while **low-educated females are somewhat (moderately) more likely to stay unemployed for at least one more year compared to those with secondary general education**.

To sum up, **high long-term unemployment rate among the low-educated has more to do with high risk of becoming unemployed than with high probability to stay unemployed longer**.

Figure 40 Selectivity index of selection from registered unemployment into long-term registered unemployment, 2008-2017, by gender and education level



Notes: Data refer to the end of the year (for 2017 - end of October). To save space, index for the tertiary education is not shown; between 2009 and 2017, it falls from -0.26 to -0.55 for males and from -0.25 to -0.63 for females.

Sources: Calculation with data provided by the State Employment Agency.

5.3 Residents of Latgale region and other vulnerable groups

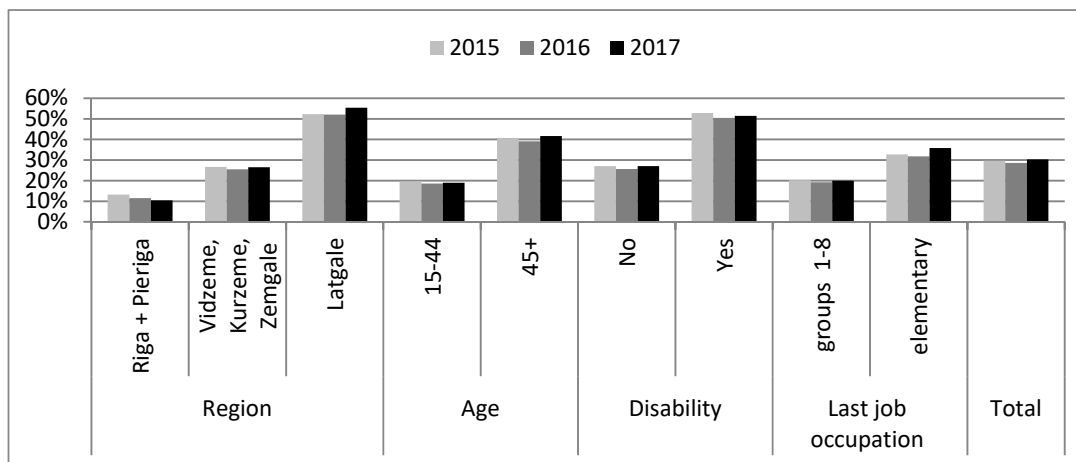
During the three recent years, **long-term registered unemployed in Latgale accounted for more than a half of all registered unemployed, while elsewhere this proportion varied between 10% and 30%** (Figure 41).

Likewise, the **proportion of long-term registered unemployed among all registered unemployed is much higher among persons aged 45+, among persons with disability and among those whose last job occupation was elementary** than among those who are aged 15-44 (respectively, do not have disability; were employed at non-elementary occupation), see Figure 41.

This suggests that **registered unemployed who live in Latgale or are aged 45+ or have disability, as well as those whose last job was in an elementary occupation, have much higher probability to stay (registered) unemployed for another year than others**.

Indeed, **index of selectivity from registered unemployment into long-term registered unemployment** (see Figure 42) is very large (above 0.50) for Latgale, persons with disability and those with last job in elementary occupations, while it is substantial (above 0.30) for age 45+.

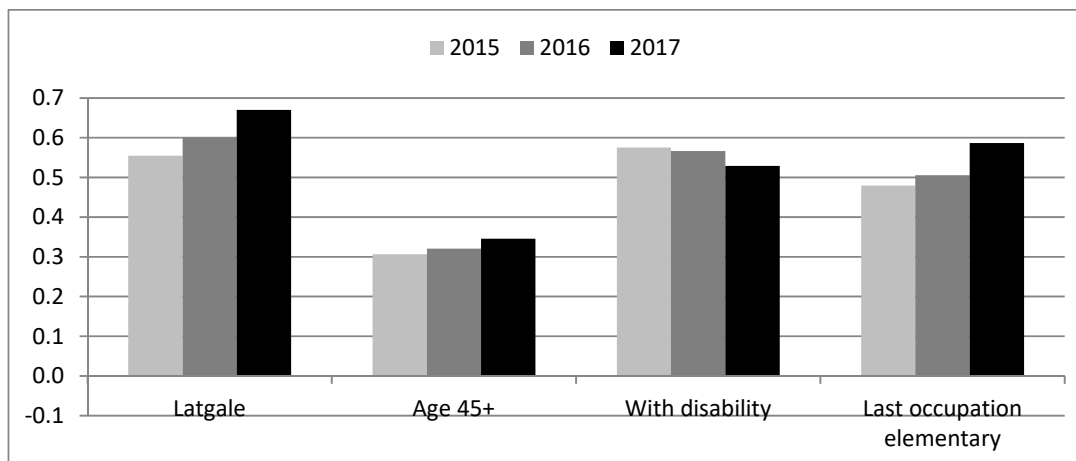
Figure 41 Proportion of long-term registered unemployed among all registered unemployed by region, age, disability status and last occupation, 2015-2017



Notes: Data refer to the end of the year (for 2017 - end of October). Data on last job exclude those without work experience or with outdated one.

Sources: Calculation with data provided by the State Employment Agency.

Figure 42 Selectivity index of selection from registered unemployment into long-term registered unemployment for selected vulnerable groups, 2015-2017



Notes: Data refer to the end of the year (for 2017 - end of October). Data on last job exclude those without work experience or with outdated one.

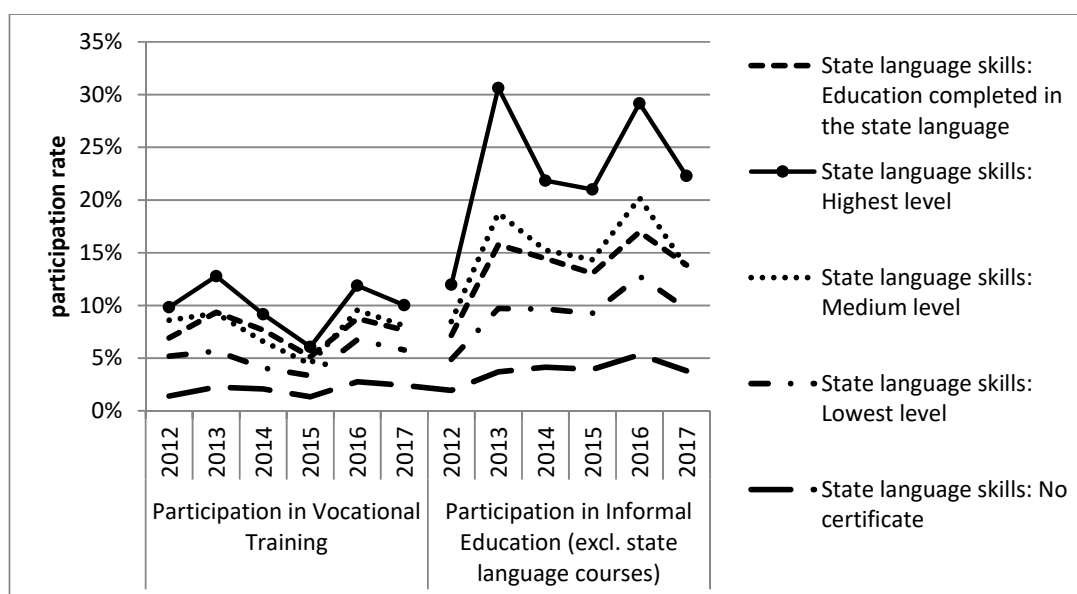
Sources: Calculation with data provided by the State Employment Agency

6 Adequacy and efficiency of the active labour market policies to address employment disparities in Latvia

This section does not aim at a comprehensive analysis. Rather, it provides a descriptive evidence to shed light on the following question: how do the vulnerable groups (ethnic minorities, especially those without certified Latvian language skills or with a low level certificate; residents of the Latgale regions; the low-educated; those with disability; those aged 50+) compare to others in terms of participation in training and informal education.

Figures 43-44 provide strong evidence that **unemployed without certified Latvian language skills or with a low level certificate are much less likely to participate in vocational training and informal education (except for the state language courses) funded by the PES**. This is because PES funds only programmes with instruction in the state language, and most jobs (even the low-skilled ones) require a certificate in state language, so the unemployed with insufficient state language skills are offered state language courses first; they have to wait for these courses for 6 to 9 months (sometimes more), and during this time there is little chance to receive other type of training.

Figure 43 Participation of registered unemployed in vocational training and informal education programmes (except for state language courses) funded by the Public Employment Service, by the level of certified state language skills (at registration time), 2012-2017



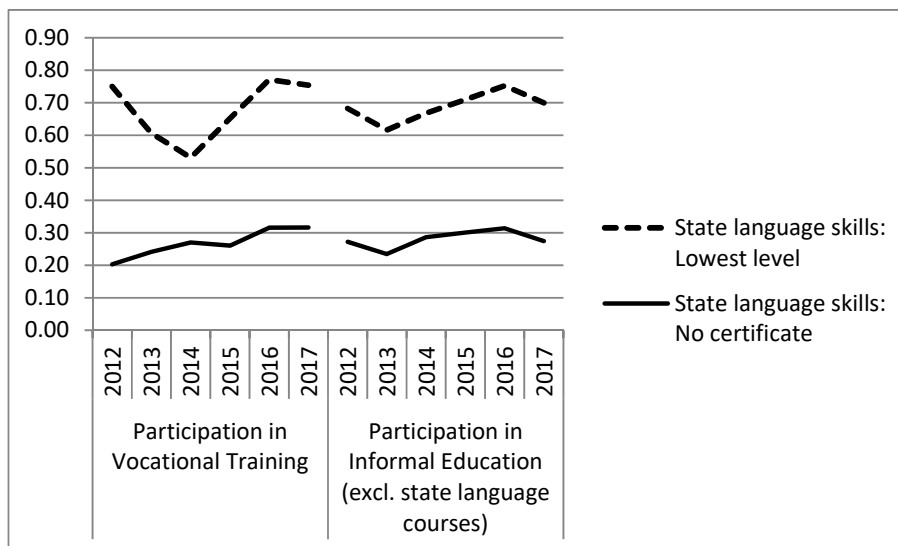
Notes: Participation rate is the number of participants during the year as a proportion of registered unemployed in the beginning of the year. Data for 2017 cover only 10 months. Informal education refers to training in 'universal' skills (language, IT, project management, driving, etc.) outside formal education system.

Sources: Calculation with data provided by the State Employment Agency.

When participation in the state language courses (see Figure 45) is accounted for, it appears that the total participation rate among those without state language certificate (respectively, with the lowest level certificate) is similar to (respectively, higher than) that among unemployed with formal education completed in the state language. However, **persistently high share of those without state language certificate or with the lowest level certificate among long-term unemployed**

suggests that ALMP have not been efficient in addressing employment disparities in this respect.

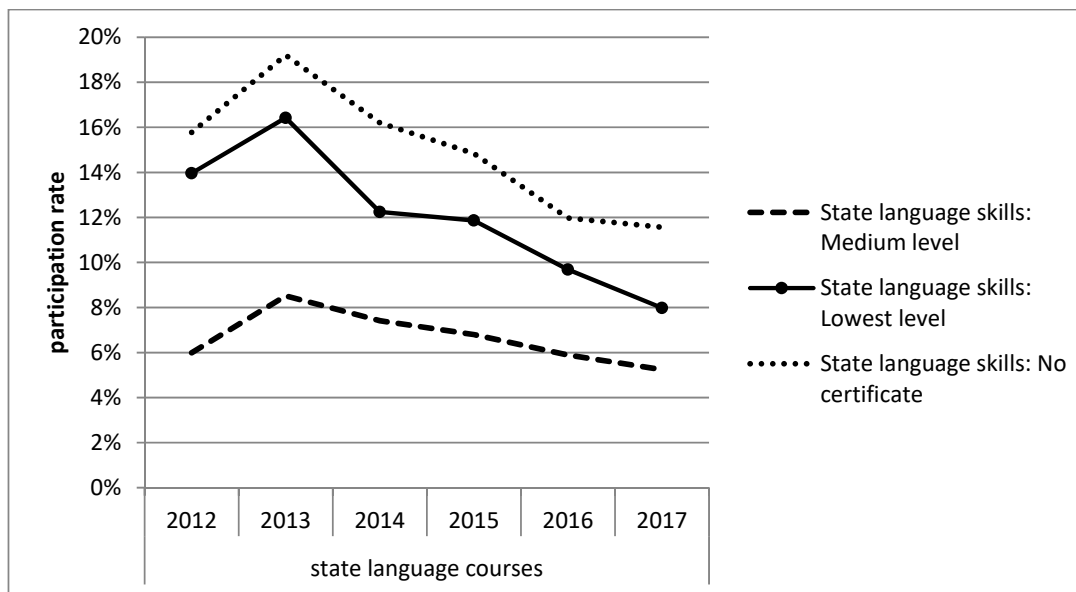
Figure 44 Relative participation rates in vocational training and informal education programmes (=1 for those who completed formal education in the state language)



Notes: Data for 2017 cover only 10 months.

Sources: Calculation with data provided by the State Employment Agency

Figure 45 Participation of registered unemployed in state language course funded by the Public Employment Service, by the level of certified state language skills (at registration time), 2012-2017



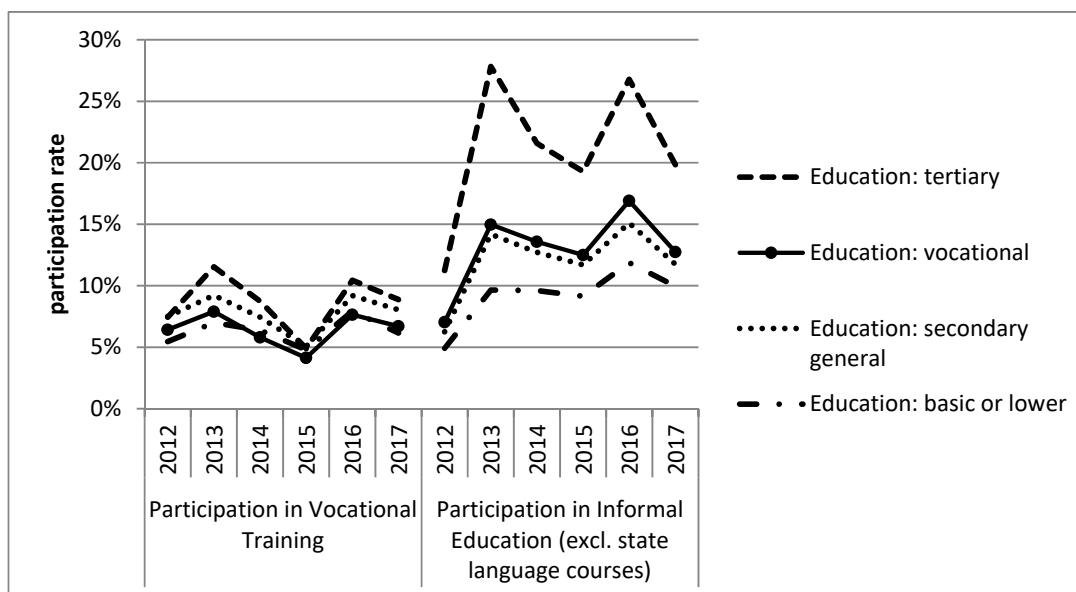
Notes: Data for 2017 cover only 10 months.

Sources: Calculation with data provided by the State Employment Agency

Likelihood to participate in vocational training and informal education (excl. state language) increases with education level (Figure 46), while participation in the state language courses does not depend on education level (Figure 47). **Given that medium- and low-educated individuals are much more likely to become long-term registered unemployed (Figure 39), the PES might want to consider**

increasing vocational training and informal education (excl. state language) rates for these groups.

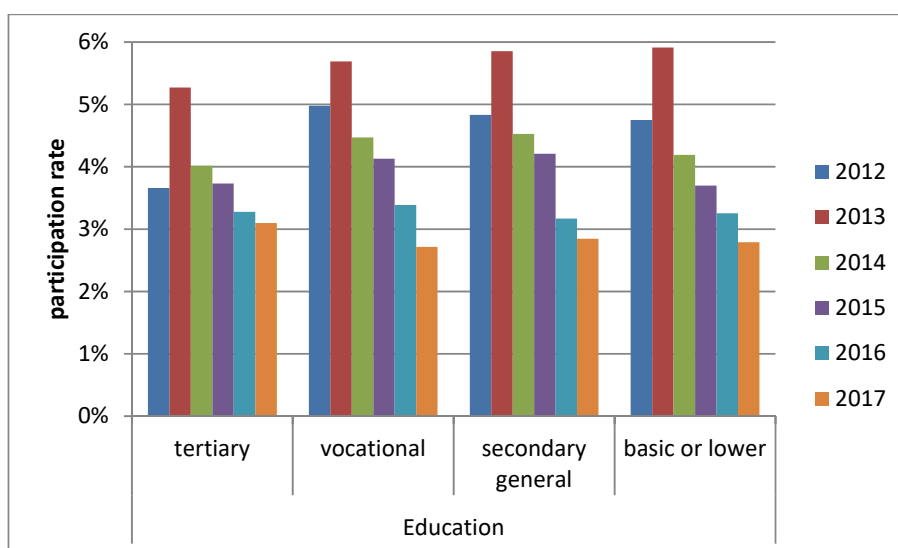
Figure 46 Participation of registered unemployed in vocational training and informal education programmes (except for state language courses) funded by the Public Employment Service, by completed education level, 2012-2017



Notes: Data for 2017 cover only 10 months.

Sources: Calculation with data provided by the State Employment Agency

Figure 47 Participation of registered unemployed in state language courses funded by the Public Employment Service, by completed education level, 2012-2017



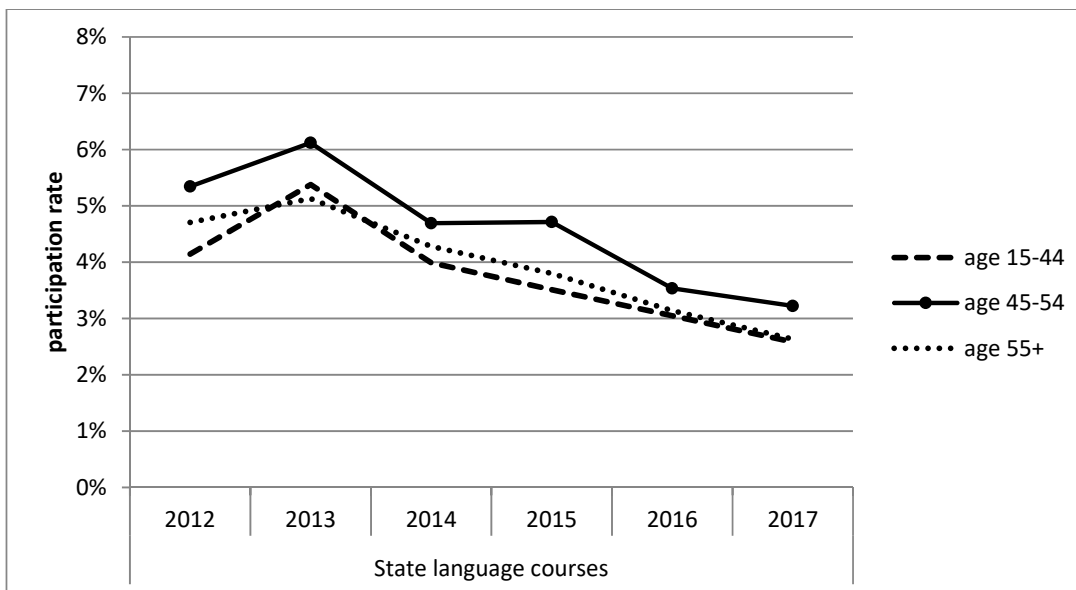
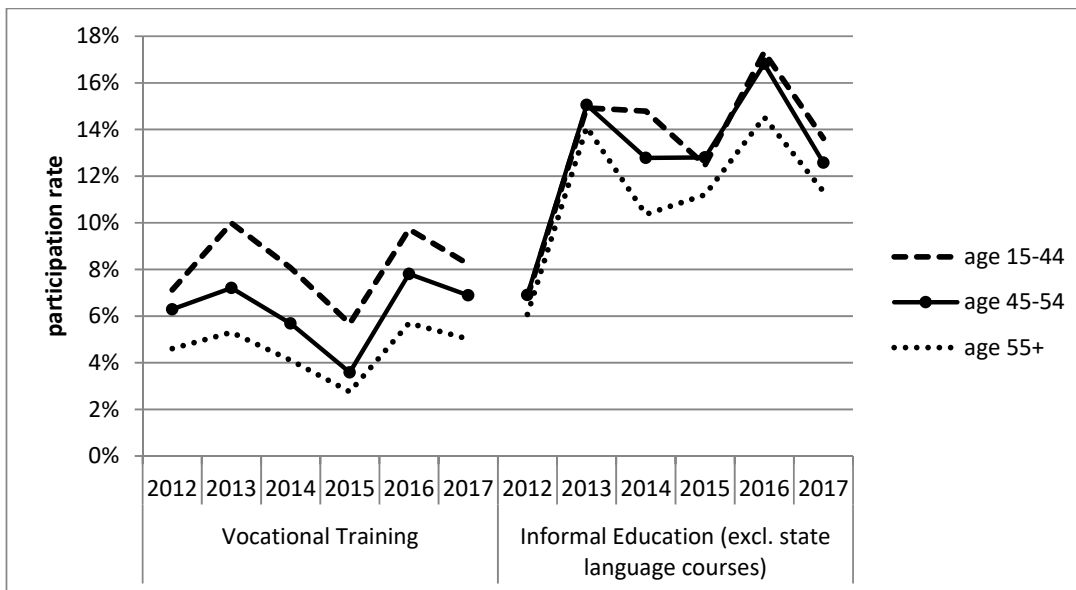
Notes: Data for 2017 cover only 10 months.

Sources: Calculation with data provided by the State Employment Agency

As shown in Figure 48, **unemployed aged 45+ (which have been identified as a group with high long-term unemployment risk, see Figures 41-42) are less likely than others to participate in vocational training, and unemployed aged**

55+ are less likely than others to participate in informal education (including also state language courses). Hopefully this will be corrected in the special programme of support for unemployed aged 50+ which has been launched in 2017.

Figure 48 Participation of registered unemployed in vocational training and informal education programmes funded by the Public Employment Service, by age, 2012-2017



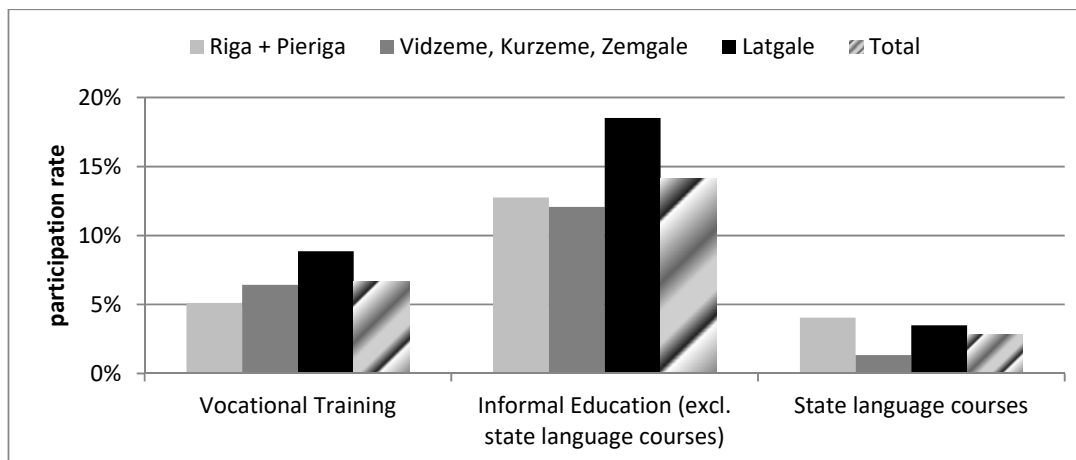
Notes: Data for 2017 cover only 10 months.

Sources: Calculation with data provided by the State Employment Agency

Evidence regarding adequacy and efficiency of ALMP in addressing regional employment disparities is mixed. In line with persistently high long-term unemployment in Latgale (Figures 41-42), participation rates in training and informal education in Latgale are higher than elsewhere (Figure 49), as one should expect. On the other hand (see State Employment Agency 2017: Fig. 2.3). the rate of outflow to employment within 6 month after completion training in Latgale (between 20% and 25%, depending of the type of training) is much lower than

elsewhere (40% to 45% in Vidzeme, Kurzeme and Zemgale, 48% in Riga and Pieriga), but this, plausibly, has to do with lack of demand.

Figure 49 Participation of registered unemployed in vocational training and informal education programmes funded by the Public Employment Service, by region, 2016



Notes: The Figure reports number of individuals who have **completed** training or informal education courses in 2016, as percentage of the total number of registered unemployed in the beginning of the year. Sources: Calculation with data provided by the State Employment Agency

7 Conclusion

The paper identifies substantial employment disparities between ethnic minorities (especially those without Latvia's citizenship and/or with insufficient level of certified Latvian language skills) and ethnic Latvians.

Employment gap between Latvians and minorities without Latvian citizenship reached 11 points already in 2009 and remained above 10 points since then.

Employment gap between Latvians and minority-citizens peaked at 8.5 points in 2011 and declined steadily since then, narrowing down to 3.3 points in 2017.

The overall ethnic employment gap between Latvians and minorities remains substantial: 7.3, 6.8 and 6.5 points in 2015, 2016 and 2017, respectively. Reduction of the ethnic employment gap occurs to a large extent not because stronger employment growth among minorities but rather because minority working-age population decreases faster. Recently (in 2014-2017), the ethnic gap in the older segment (55-64) is substantially larger than in the prime-age group.

Unlike the ethnic employment gap, which widened during the crisis and declined since 2012, the regional gap (between Latgale and other regions outside the metropolitan area) was at historic low (3 points) in 2010, the worst year of the crisis. During the post-crisis growth period, employment rate in Latgale was growing slower than elsewhere and the regional employment gap has reached 8.4 points by 2015 but narrowed down to about 6 points by 2017.

The employment gap between medium- and low-educated is less of a concern for Latvia than for most EU member states. On the other hand, the employment gap between the high- and medium-educated in Latvia is the 6th largest among EU member states. At least for males, this can be attributed to low employment rate among the medium-educated rather than unusually high employment of high-educated.

Open unemployment, hidden unemployment and other inactivity all contribute to the ethnic employment gap, with the largest contribution for males being by unemployment, but for females - by inactivity. Furthermore, in all years and for both genders, long-term and total open unemployment rate, as well as hidden unemployment rate (i.e. inactive available for work as percentage of the labour force) are higher among minority population.

During the crisis years 2008-2010 the ethnic employment gaps for both genders were completely (in 2008-2009) or almost completely (for females in 2010) unexplained by differences between two groups in education level, age, citizenship, presence of spouse/partner and children, being disabled, student or retiree, as well as region and urbanisation level. Moreover, even in the post-crisis years, most of the total gap remains unexplained.

For males and females alike, the ethnic penalty for non-citizens is of the same (or similar) size as the effect of low education (in comparison with secondary general). Moreover, this ethnic/citizenship effect is of the same size as that of a 10% drop in GDP for males and almost three times as big for females.

For females with Latvia's citizenship, the ethnic effect on employment is almost twice as big as the effect of a 10% drop in GDP, while for males with Latvia's citizenship the size of the ethnic effect is equivalent to a 4.3% drop in GDP (Figure 27). Thus, the ethnic penalties in the labour market are large.

For both genders the labour market penalty for living in Latgale is comparable in size with the effect of a 10% drop in GDP.

Significant and persistent ethnic effects on employment are found at tertiary and upper secondary education levels among females (both with and without Latvia's citizenship), as well as at all education levels among males - non-citizens.

The main channel of ethnic employment disparities is that economically active minority individuals are more likely to be unemployed than their ethnic Latvian counterparts (other things equal). In addition, minority females of working age feature lower propensity to be available for work and, if available, lower propensity to seek work (i.e., higher propensity to be discouraged) than ethnic Latvian females.

Minorities are strongly over-represented among both active and hidden long-term unemployed, as well as among registered long-term unemployed.

Graduates of the STEM fields (sciences, technologies and engineering, and mathematics) account for over 60% of long-term unemployed with vocational or tertiary education; for males this proportion is almost 80%, while for females it exceeds one-third. These proportions are well above similar proportions for the labour force in general.

Registered unemployed with no certification of state language skills or with the lowest level certificate are, on average, more likely than others to become long-term unemployed.

High long-term unemployment rate among the low-educated has more to do with high risk of becoming unemployed than with high probability to stay unemployed longer.

Registered unemployed who live in Latgale or are aged 45+ or have disability, as well as those whose last job was in an elementary occupation, have much higher probability to stay (registered) unemployed for another year than others.

Unemployed without certified Latvian language skills or with a low level certificate are much less likely to participate in vocational training and informal education (except for the state language courses) funded by the PES. Persistently high share of those without state language certificate or with the lowest level certificate among long-term unemployed suggests that ALMP have not been efficient in addressing employment disparities in this respect.

Unemployed aged 45+ (which have been identified as a group with high long-term unemployment risk) are less likely than others to participate in vocational training, and unemployed aged 55+ are less likely than others to participate in informal education (including also state language courses). Hopefully this will be corrected in the special programme of support for unemployed aged 50+ which has been launched in 2017.

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Annex

Table A1 Profile of registered long-term unemployed males, 2008-2017 (end of year)
Per cent

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Education										
Tertiary	5.4	7.1	7.9	6.6	6.1	5.9	6.1	5.7	6.5	6.1
Vocational	41.5	44.1	41.5	40.9	41.7	43.1	43.3	43.5	43.9	44.0
Sec. General	27.6	28.1	27.4	27.3	27.1	26.7	26.7	26.8	26.4	26.6
Basic or less	25.5	20.7	23.2	25.2	25.0	24.4	23.9	23.9	23.2	23.3
Certified Latvian language skills										
Education completed in Latvian	54.8	50.0	52.4	53.8	54.2	55.9	54.1	53.8	53.0	51.3
Highest level	3.0	3.8	3.5	3.0	2.7	2.6	2.5	2.3	2.5	2.7
Medium level	6.7	11.0	11.0	10.4	10.0	9.6	10.0	10.0	10.3	9.9
Lowest level	17.6	17.3	16.1	15.7	16.0	16.2	17.1	18.1	18.6	19.5
None	17.7	18.0	17.0	17.0	17.0	15.6	16.3	15.8	15.6	16.6
Ethnicity										
Latvian	54.7	50.7	52.2	53.3	53.6	55.1	53.1	52.7	53.1	51.3
Other	45.3	49.3	47.8	46.7	46.4	44.9	46.9	47.3	46.9	48.7
Age										
15 - 19	0.2	0.4	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2
20 - 24	3.1	4.0	6.6	5.8	4.2	3.2	2.5	2.5	2.2	2.2
25 - 29	4.5	5.4	7.0	5.9	5.1	4.5	4.1	4.3	4.4	3.9
30 - 34	6.5	6.7	7.9	6.7	6.1	5.4	5.0	5.0	5.4	4.8
35 - 39	9.0	9.0	10.2	9.9	8.4	7.3	7.3	7.0	6.3	6.7
40 - 44	11.3	11.9	12.2	12.0	11.9	11.7	11.0	10.6	10.0	9.3
45 - 49	17.1	18.0	15.9	15.5	15.2	15.2	15.0	14.0	13.7	13.2
50 - 54	19.4	21.2	18.7	20.0	21.6	22.0	21.0	20.3	19.6	18.4
55 - 59	24.2	19.9	17.3	18.8	21.1	24.3	26.4	26.2	26.9	27.1
60+	4.8	3.6	3.6	5.0	5.9	6.2	7.5	9.9	11.2	14.3
Disability	15.8	9.9	7.5	11.3	14.1	17.1	18.6	20.4	23.2	24.5
Yes	6.1	4.2	6.2	8.5	10.5	10.8	11.1	11.0	12.9	14.9
Last occupation (ISCO major group)										
1	2.1	2.7	3.4	2.5	2.2	1.9	1.9	1.7	2.3	2.0
2	1.9	2.3	3.4	2.8	2.8	2.5	2.7	2.5	2.9	3.4
3	3.7	4.6	5.9	5.0	4.5	4.1	4.7	4.3	4.0	4.5
4	1.3	2.1	2.4	2.4	2.3	2.1	2.4	2.0	1.9	1.9
5	5.4	5.5	7.5	8.9	8.6	8.5	7.6	7.7	7.6	7.8
6	4.7	3.1	2.5	2.6	3.3	4.1	3.8	4.3	4.5	5.5
7	19.2	28.2	27.1	24.8	23.0	21.0	22.4	21.4	21.7	20.3
8	20.9	24.4	20.7	19.0	18.0	18.7	18.4	18.5	18.0	17.8
9	40.9	27.3	27.0	32.0	35.3	37.0	36.1	37.5	37.2	36.9

Table A2 Profile of registered long-term unemployed females, 2008-2017 (end of year)

Per cent

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Education										
Tertiary	7.3	11.7	14.4	12.3	11.3	9.8	10.3	10.9	11.9	11.6
Vocational	39.7	39.9	36.9	36.4	37.1	37.5	37.7	38.2	37.8	38.4
Sec. General	30.2	29.3	28.5	29.0	28.1	28.2	27.6	26.9	26.8	26.9
Basic or less	22.8	19.1	20.2	22.3	23.5	24.4	24.4	24.0	23.4	23.1
Certified Latvian language skills										
Education completed in Latvian	48.9	46.7	51.5	51.3	51.5	52.7	51.6	52.4	51.2	50.0
Highest level	6.0	7.1	7.8	7.0	6.5	6.5	6.7	6.4	6.5	6.4
Medium level	15.5	20.1	19.3	19.2	19.0	18.1	18.1	17.6	18.0	18.3
Lowest level	16.4	14.8	12.0	12.5	12.9	12.8	13.6	13.9	14.5	15.3
None	13.2	11.2	9.4	10.0	10.1	9.9	10.0	9.8	9.8	10.0
Ethnicity										
Latvian	49.5	47.5	51.2	50.5	50.4	51.4	50.0	50.5	50.2	49.0
Other	50.5	52.5	48.8	49.5	49.6	48.6	50.0	49.5	49.8	51.0
Age										
15 - 19	0.4	0.4	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.2
20 - 24	4.7	6.0	7.2	6.7	5.1	3.7	2.8	2.9	2.3	2.2
25 - 29	7.2	8.2	9.1	8.8	8.2	7.3	6.6	6.4	6.4	5.6
30 - 34	9.5	9.0	9.8	9.3	8.7	7.8	7.5	7.5	7.5	7.3
35 - 39	12.0	11.1	10.9	10.9	10.7	10.2	9.6	8.8	8.7	8.4
40 - 44	10.9	12.0	11.8	11.7	11.7	11.6	11.5	11.5	11.4	10.8
45 - 49	15.2	15.3	14.2	13.8	13.7	13.4	12.9	13.0	12.7	12.5
50 - 54	17.5	17.9	16.8	16.9	18.0	19.2	19.4	18.2	17.7	16.9
55 - 59	19.4	17.1	16.7	17.5	19.1	21.3	22.8	22.6	23.0	23.8
60+	3.2	3.0	3.2	4.0	4.6	5.3	6.8	9.0	10.2	12.3
Disability										
Yes	11.7	7.9	6.2	8.8	10.9	13.6	15.4	16.4	19.7	21.4
Last occupation (ISCO major group)										
1	2.2	2.5	3.2	2.9	2.9	2.7	2.7	2.7	2.9	3.0
2	4.5	5.3	8.4	6.7	5.9	5.4	5.4	5.4	6.0	6.4
3	7.7	9.1	10.3	8.8	7.6	7.3	7.9	8.4	8.4	8.6
4	8.7	9.5	10.8	10.1	9.6	9.0	8.8	7.9	7.8	7.7
5	20.2	21.9	24.5	26.2	25.6	24.9	24.8	24.5	23.8	24.4
6	4.8	3.6	2.6	1.9	2.0	2.3	2.1	2.9	2.5	2.6
7	7.6	10.1	7.8	8.4	8.8	8.6	8.6	10.2	10.2	8.6
8	4.4	6.7	4.5	3.3	2.8	2.7	3.3	3.2	3.3	3.2
9	39.8	31.1	28.0	31.5	34.8	37.2	36.4	34.8	35.2	35.6

Table A3 Profile of registered unemployed males, 2008-2017 (end of year data)

Per cent

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Education										
Tertiary	9.2	10.0	8.1	8.1	8.3	9.3	9.6	10.0	10.6	12.5
Vocational	40.9	39.8	39.1	39.4	40.3	40.8	41.1	41.5	41.3	39.6
Sec. General	27.8	27.2	27.0	26.8	26.0	25.9	25.8	25.1	25.2	25.7
Basic or less	22.1	22.9	25.8	25.8	25.3	24.0	23.6	23.3	22.9	22.2
Certified Latvian language skills										
Education completed in Latvian	54.2	56.5	56.1	55.7	56.8	58.8	58.9	59.3	60.0	59.1
Highest level	4.3	4.0	3.2	2.9	2.8	2.8	2.7	2.7	2.7	2.9
Medium level	11.3	11.3	13.3	10.9	10.8	11.1	11.3	11.2	11.2	11.4
Lowest level	13.4	12.5	11.0	13.8	14.1	13.6	14.1	14.3	14.1	14.0
None	16.7	15.7	16.4	16.7	15.5	13.7	13.1	12.5	11.9	12.5
Ethnicity										
Latvian	54.6	56.0	55.0	54.4	54.9	55.9	55.1	55.2	57.9	56.8
Other	45.4	44.0	45.0	45.6	45.1	44.1	44.9	44.8	42.1	43.2
Age										
15 - 19	1.7	2.2	2.3	1.6	1.3	1.1	1.0	0.8	0.8	0.8
20 - 24	11.7	12.7	11.7	9.5	8.4	8.1	7.8	7.1	6.8	5.9
25 - 29	10.9	11.4	9.8	9.0	8.6	9.7	10.3	10.7	10.3	10.0
30 - 34	10.2	10.4	9.6	8.8	8.1	9.0	9.1	9.9	10.1	10.0
35 - 39	10.8	11.1	11.0	10.8	9.7	9.8	9.4	9.6	9.4	9.4
40 - 44	11.2	11.3	11.4	11.8	11.8	11.5	11.4	11.1	10.9	10.6
45 - 49	13.7	13.5	13.7	13.7	13.7	13.1	12.5	12.2	12.2	12.0
50 - 54	13.9	13.6	14.7	16.5	17.7	16.4	15.8	15.2	14.6	14.1
55 - 59	12.2	11.3	12.8	14.2	16.2	16.7	17.2	16.9	17.2	18.0
60+	3.7	2.5	3.1	4.2	4.4	4.6	5.5	6.5	7.6	9.4
Disability										
Yes	6.1	4.2	6.2	8.5	10.5	10.8	11.1	11.0	12.9	14.9
Last occupation (ISCO major group)										
1	4.9	4.8	3.8	3.3	3.2	3.4	3.6	3.9	4.6	4.9
2	3.8	4.8	4.0	3.9	3.9	4.4	4.7	4.8	5.4	7.0
3	7.4	7.7	6.6	6.3	6.1	7.1	6.9	7.0	7.0	8.6
4	2.9	2.7	2.6	2.7	2.8	3.1	3.1	3.0	3.4	4.0
5	5.9	7.1	8.7	9.1	8.5	7.6	7.9	7.0	7.5	8.5
6	1.9	1.9	2.3	2.4	2.8	2.6	2.7	2.6	3.1	3.2
7	29.8	28.6	26.3	25.1	24.2	24.0	23.3	24.7	22.9	20.8
8	23.0	20.3	19.8	18.9	18.9	19.9	20.3	20.4	19.9	17.4
9	20.4	21.9	25.9	28.3	29.6	27.7	27.5	26.4	26.2	25.6

Table A4 Profile of registered unemployed females, 2008-2017 (end of year data)
Per cent

Education										
Tertiary	15.0	19.2	15.9	15.8	15.8	17.7	18.8	20.3	21.7	23.7
Vocational	37.1	34.9	34.4	34.5	35.2	34.7	34.0	33.7	33.5	33.1
Sec. General	30.0	28.7	29.4	28.8	27.6	27.2	26.9	26.4	25.9	25.2
Basic or less	18.0	17.3	20.3	20.8	21.5	20.3	20.3	19.6	18.9	18.0
Certified Latvian language skills										
Education completed in Latvian	51.2	55.5	55.5	55.1	56.4	58.0	59.0	60.3	60.9	60.6
Highest level	7.7	7.9	7.1	6.7	6.3	6.7	6.5	6.3	6.4	6.5
Medium level	19.5	18.2	18.4	18.6	18.3	17.9	17.6	16.9	16.9	17.1
Lowest level	11.3	9.6	9.9	10.4	10.5	9.9	9.8	9.8	9.5	9.6
None	10.4	8.8	9.1	9.1	8.5	7.5	7.1	6.8	6.4	6.3
Ethnicity										
Latvian	51.0	54.2	53.9	53.0	53.7	54.1	54.1	54.8	56.7	56.0
Other	49.0	45.8	46.1	47.0	46.3	45.9	45.9	45.2	43.3	44.0
Age										
15 - 19	1.6	2.0	2.2	1.5	1.2	1.0	1.0	0.7	0.7	0.6
20 - 24	12.1	12.2	12.4	10.8	9.1	8.8	8.5	8.0	7.2	6.4
25 - 29	11.6	11.6	11.4	11.3	11.2	11.8	12.4	12.2	12.5	12.3
30 - 34	10.7	10.4	10.4	10.2	9.9	10.4	11.0	11.3	12.0	12.3
35 - 39	11.0	10.9	10.7	10.8	10.7	10.8	10.4	10.1	10.1	10.4
40 - 44	10.7	11.0	10.7	10.9	11.1	11.0	10.8	10.9	10.7	10.6
45 - 49	13.0	13.0	12.3	12.3	12.1	11.3	11.0	11.0	10.9	10.7
50 - 54	13.4	13.5	13.7	14.2	15.4	15.1	14.1	13.7	13.1	12.4
55 - 59	12.5	12.4	13.2	14.0	15.2	15.2	15.4	15.4	15.3	15.6
60+	3.4	3.0	3.1	3.9	4.1	4.6	5.4	6.7	7.5	8.8
Disability										
Yes	5.5	3.9	5.4	7.0	8.6	9.2	9.5	9.5	11.3	12.2
Last occupation (ISCO major group)										
1	4.2	3.9	3.6	3.8	3.8	4.0	4.2	4.6	4.8	5.5
2	7.5	10.2	8.7	7.9	7.7	8.5	8.9	9.5	10.5	11.5
3	12.4	12.0	10.7	9.4	9.1	10.2	10.0	10.7	11.7	12.8
4	10.9	11.2	11.4	10.8	10.6	10.6	9.5	9.1	9.6	10.0
5	24.2	25.6	28.4	28.2	27.8	27.4	27.3	26.2	26.7	27.0
6	3.0	2.7	2.2	1.7	1.8	1.7	1.8	1.7	1.9	1.4
7	8.5	8.0	6.8	8.0	8.3	8.0	9.1	10.3	7.8	6.9
8	6.2	4.1	3.1	2.6	2.4	2.6	2.9	2.6	2.3	2.1
9	23.0	22.2	25.1	27.5	28.6	27.1	26.2	25.3	24.7	22.7

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