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Faces of Joblessness in Estonia: A People-centred perspective on employment barriers and policies

James Browne,
Herwig Immervoll,
Rodrigo Fernandez,
Dirk Neumann,
Daniele Pacifico,
Céline Thévenot

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FACES OF JOBLESSNESS IN ESTONIA

A People-centred Perspective on Employment Barriers and Policies

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For further information contact:
James Browne (James.Brown@oecd.org), Herwig Immervoll (Herwig.Immervoll@oecd.org),
Rodrigo Fernández (Rodrigo.Fernandez@oecd.org), Dirk Neumann (Dirk.Neumann@oecd.org),
Daniele Pacifico (Daniele.Pacifico@oecd.org), and Céline Thévenot
(Celine.Thevenot@oecd.org)

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Abstract

In the aftermath of the financial and economic crisis, large shares of working-age individuals in Estonia either did not work or only to a limited extent. By 2013, several years after the start of the labour-market recovery, 18% were still without employment during the entire year, and a further 13% had weak labour-market attachment, working only a fraction of the year, or on restricted working hours. This paper applies a novel method for measuring and visualising employment barriers of individuals with no or weak labour-market attachment, using household micro-data. It first develops indicators to quantify employment obstacles under three broad headings: (i) work-related capabilities, (ii) incentives, and (iii) employment opportunities. It then uses these indicators in conjunction with a statistical clustering approach to identify unobserved (“latent”) groups of individuals facing similar combinations of barriers. The resulting typology of labour-market difficulties provides insights on the most pressing policy priorities in supporting different groups into employment. A detailed policy discussion illustrates how the empirical results can inform people-centred assessments of existing labour-market integration measures and of key challenges across different policy areas and institutions. The most common employment obstacles in Estonia were low skill levels, health limitations and limited work experience. Financial disincentives, care responsibilities and scarce job opportunities were less widespread overall, although important barriers for some groups. A notable finding is that almost one third of jobless or low-intensity workers face three or more simultaneous barriers, highlighting the limits of narrow policy approaches that focus on subsets of these employment obstacles in isolation.
À la suite de la crise économique et financière, une forte proportion de la population d'âge actif est sans emploi ou ne travaille que dans une mesure limitée en Estonie. En 2013, plusieurs années après le début du redressement du marché du travail, 18% de ces personnes étaient toujours sans emploi tout au long de l'année, et 13% de la population d'âge actif n'avaient que des liens ténus avec le marché de l'emploi, ne travaillant qu'une partie de l'année ou avec un temps de travail restreint. Nous appliquons dans ce document une nouvelle méthode pour mesurer et visualiser les obstacles à l'emploi auxquels se heurtent les individus dont les liens avec le marché du travail sont rompus ou ténus, faisant appel à des microdonnées sur les ménages. Nous élaborons d'abord des indicateurs pour quantifier les obstacles à l'emploi dans trois grands domaines : (i) les capacités liées au travail, (ii) les incitations et (iii) les perspectives d'emploi. Nous utilisons ensuite ces indicateurs en appliquant une méthode de segmentation statistique pour identifier des classes non observées (« latentes ») d'individus confrontés aux mêmes combinaisons d'obstacles. On obtient ainsi une typologie des difficultés sur le marché du travail qui apporte un éclairage sur les mesures prioritaires les plus urgentes que doivent prendre les pouvoirs publics pour améliorer l'accès à l'emploi de différents groupes. Un examen approfondi montre comment ces résultats empiriques peuvent être exploités pour réaliser des évaluations axées sur les besoins des usagers des dispositifs existants d'insertion sur le marché du travail, ainsi que des principaux enjeux de l'action publique dans différents domaines et pour diverses institutions. Les obstacles à l'emploi les plus courants en Estonie étaient la faiblesse des compétences, les problèmes de santé et le manque d'expérience professionnelle. Les contre-incitations financières, les obligations de prise en charge de proches et le manque de perspectives d'emploi constituaient des obstacles globalement moins répandus, même s'ils étaient importants pour certains groupes. Une conclusion notable est que près d'un tiers des personnes sans emploi ou caractérisées par une faible intensité de travail sont confrontées simultanément à trois obstacles ou plus, ce qui souligne les limites des approches étroites qui portent sur des sous-ensembles de ces obstacles à l'emploi considérés isolément.
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1. Introduction and motivation

1. Across EU and OECD countries, between 16 and 50% of working-age individuals are without employment, and a significant share of workers are in unstable jobs, or work intermittently or fewer hours than they would like. The factors contributing to joblessness or underemployment are varied and can relate to individual circumstances and characteristics, to specific policy choices, or to the broader economic context, such as a cyclical labour-market weakness. Good-quality information on the employment barriers that people are facing is crucial for formulating strategies to overcome them, and for assessing the effectiveness of existing policy measures aiming to strengthen labour-market outcomes.

2. The “Faces of Joblessness” project (www.oecd.org/social/faces-of-joblessness.htm), undertaken jointly by the OECD and the European Commission, develops and applies a novel method for identifying groups of people with no or weak labour-market attachment, as well as their employment barriers. It covers selected EU and OECD countries and is organised broadly in three parts. A first part presents typologies of underutilised employment potential. To do this, the analysis employs survey data that allow considering individual work patterns over an entire year. Going beyond snapshots of people’s labour-market status facilitates a discussion of underemployment, e.g., in the form of intermittent or occasional work, which is attracting growing policy attention.

3. A second part assesses the incidence and severity of key barriers that may hinder stable or higher-intensity employment for those on the margins of the labour market. The examination of barriers relies on a series of quantitative indicators of concrete labour-market obstacles accounting for individual (e.g. skills, work experience, health), household (care responsibilities) and labour market/institutional (labour demand, work incentives) contexts, and providing a rich account of employment barriers and characteristics (“faces”) of different groups. In particular, the quantitative information on employment barriers is used to reveal groups who share similar combinations of barriers and who are therefore likely to provide a good basis for tailoring and targeting policy interventions.

4. A third part employs this empirical information to support a policy inventory for selected groups. Essentially, the results on employment barriers are used to examine whether existing activation and employment-support policies are well-adapted to the barriers and characteristics that are prevalent in the selected population groups. By discussing existing policy configurations from the perspective of the employment barriers that people are facing, this bottom-up approach is intended to provide concrete input into policy discussions on how to adapt employment-support measures to different groups and evolving labour-market realities. For instance, the results can inform assessments of whether specific groups are “on the radar” of existing activation and employment-support

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1. The six EU countries included in the OECD/EC project are Estonia, Ireland, Italy, Lithuania, Portugal and Spain. References to a “6-country average” in this document refer to those six countries.
policies, whether existing policy configurations are suitably customised to the needs of specific labour-market groups, and whether employment support is accessible to those who are likely to benefit from it.

5. This paper presents results and selected policy implications for Estonia, drawing on the latest wave of the EU-SILC data (2014) that was available for this project. 18% of working-age individuals in Estonia were persistently out of work for at least 12 months, and a further 13% had low work intensity working less than half of the year, or reporting limited working hours or very low earnings. The empirical approach can be easily repeated with data for later periods. However, while the size of groups is likely to change as the labour market recovers and cyclical unemployment is absorbed, the more structural barriers are likely to persist while underlying policy and related constraints remain in place.

6. The most common potential employment barriers among these 31% of the working-age population were low skill levels, health limitations and limited work experience. Although financial disincentives, care responsibilities and scarce job opportunities were less widespread overall, they represented important barriers for some groups. A striking finding is that large shares of those with no or weak labour-market attachment face multiple simultaneous employment barriers: 32% faced three or more significant barriers, highlighting the need for broad and coordinated policy approaches that focus on all relevant barriers in a holistic way.

7. Section 2 discusses the labour-market and social context in Estonia in which the Faces of Joblessness analysis is undertaken, summarises empirical results on the incidence of employment barriers among working-age individuals with no or weak labour-market attachment, and presents a typology of distinct labour-market groups of shared sets of employment barriers and characteristics derived from a comprehensive statistical segmentation analysis. Section 3 provides an overview of Estonia’s policy stance on activation and employment-support policies drawing on a range of available data and policy indicators. Section 4 seeks to illustrate how bottom-up information on patterns of individual employment barriers can inform a discussion of policy priorities, effectiveness and gaps. (a) Older labour market inactive adults with health limitations, low skills and limited work experience; (b) Working poor; and (c) Unskilled mothers with care responsibilities and limited work experience. A concluding section summarises key policy implications.
2. Faces of Joblessness in Estonia

2.1. Labour-market and social context

1. As background for the policy inventory in Sections 3 and 4, this part provides a summary of the incidence and patterns of employment barriers in Estonia. The summary is based on an in-depth profile analysis of jobless individuals and those with weak labour-market attachment. Full details on the employment barriers and the specific population groups sharing similar types of barriers are reported in a statistical companion paper (Browne and Pacifico, 2016, available through the project website http://www.oecd.org/social/faces-of-joblessness.htm).

2. The immediate impact of the economic crisis of 2008 was particularly severe in Estonia but was followed by a strong recovery since 2010 (see Figure 1). The crisis did not impact the efficiency of the job matching process – unlike in many other OECD countries, the Beveridge curve did not shift outwards (OECD, 2014) – and by 2015, the employment rate in Estonia was once again well above the EU average, and above its pre-crisis level. Indeed, Estonia shows a strong performance for many employment outcomes. For instance, the gender employment gap was smaller than in many other European countries and the gap has narrowed in recent years. Similarly, both the youth unemployment rate and the NEET rate in 2013 were below the EU average. The employment level of older people (age 55 to 64) is also above the EU average.

**Figure 1. Employment rates: strong recovery after the crisis**

in % of the working-age population

3. Despite this strong performance overall, there are some subgroups for whom employment rates are relatively low in Estonia. For instance, the employment rate of women in couples with young children is low in comparison to other European countries (women aged 25-49 with a child aged under 3 have an employment rate that is more than 50 percentage points lower than that of childless women of the same age, a very large gap compared to other EU countries; European Commission, 2016), even though employment rates of lone parents remain relatively high (78% of lone parents were in paid work in 2015). And despite the low gender employment gap, the gender wage gap remains one of the highest in the EU. Skills shortages have been noted in recent OECD and EC country reports, leading to calls for reforms to vocational education in order to strengthen work-based learning and reduce skills mismatches (OECD, 2015a; European Commission, 2016).

4. As a result of the high employment rate, the incidence of very low work intensity and the proportion of the working-age population at-risk of poverty or social exclusion (AROPE) remain relatively low (Table 1). However, the proportion of the working-age population at risk of poverty is high at 20%, compared to the EU average of 17%. Poverty rates are especially high among jobless individuals and those working part time. Estonia is unusual in having higher poverty and material deprivation rates for households without children than for those with children. This is driven by much higher poverty rates among older working age people with adult children, which is itself caused by lower employment rates and low levels of early retirement and incapacity pensions among this group.

Table 1. Risk of poverty or social exclusion

<table>
<thead>
<tr>
<th></th>
<th>Estonia</th>
<th>Ireland</th>
<th>Italy</th>
<th>Lithuania</th>
<th>Portugal</th>
<th>Spain</th>
<th>EU28</th>
</tr>
</thead>
<tbody>
<tr>
<td>People at risk of poverty or social exclusion</td>
<td>24</td>
<td>30</td>
<td>30</td>
<td>26</td>
<td>29</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>People at risk of poverty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>20</td>
<td>31</td>
<td>31</td>
<td>35</td>
<td>32</td>
<td>36</td>
<td>31</td>
</tr>
<tr>
<td>Not working</td>
<td>36</td>
<td>31</td>
<td>31</td>
<td>35</td>
<td>32</td>
<td>36</td>
<td>31</td>
</tr>
<tr>
<td>Working</td>
<td>12</td>
<td>6</td>
<td>11</td>
<td>8</td>
<td>11</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>full-time</td>
<td>11</td>
<td>3</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>part-time</td>
<td>20</td>
<td>11</td>
<td>17</td>
<td>24</td>
<td>31</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>Households without children</td>
<td>25</td>
<td>15</td>
<td>16</td>
<td>18</td>
<td>16</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Households with children</td>
<td>18</td>
<td>16</td>
<td>24</td>
<td>20</td>
<td>23</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>People living in households with severe material deprivation</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>All</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Households without children</td>
<td>7</td>
<td>6</td>
<td>10</td>
<td>16</td>
<td>10</td>
<td>6</td>
<td>8</td>
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<tr>
<td>Households with children</td>
<td>5</td>
<td>10</td>
<td>13</td>
<td>12</td>
<td>11</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>People living in households with very low work intensity</td>
<td>10</td>
<td>24</td>
<td>12</td>
<td>12</td>
<td>11</td>
<td>15</td>
<td>11</td>
</tr>
</tbody>
</table>

Note: (1) individuals aged 18-64; (2) individuals aged 18-59. The risk of poverty is computed using the Eurostat methodology.

Source: Eurostat (EU-SILC 2014).

2.2. Target groups for activation and employment-support policies

5. Individuals with labour market difficulties frequently move between non-employment and different states of “precarious” employment. As a result, limiting attention
to “snapshots” of non-employed (or underemployed) individuals, such as those based on labour force surveys, may not capture the true extent of labour-market difficulties or the need for policy intervention. To cover the potential scope of AESPs, the population considered in this paper includes working-age individuals who are persistently out of work (either unemployed or labour-market inactive) as well as individuals who work intermittently or whose labour-market attachment is “weak”, e.g. because they work only very few hours or they move in and out of short-duration jobs. This broad target population includes all potential target groups for AESP policy intervention. Box 1 defines each sub-group in more detail and explains how it is identified in the EU-SILC data.3

<table>
<thead>
<tr>
<th>Box 1. Population groups with potential labour market difficulties (target population for the analysis in this paper)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The target population of interest in this paper includes those who are persistently out-of-work, as well as those with weak labour-market attachment.</td>
</tr>
</tbody>
</table>

The persistently out-of-work population (long-term unemployed or inactive) includes individuals reporting no employment activity throughout the reference period. The reference period corresponds to 12 consecutive monthly observations in the income reference year (January-December of year T-1) plus one additional observation at the moment of the interview (in year T).

The group with weak labour market attachment (or “underemployed”) refers to individuals reporting employment activity during the reference period matching any of the following three situations:

**Unstable jobs**: individuals working only a limited number of months throughout the reference period. The threshold is equivalent to Eurostat’s low-work-intensity measure: Above zero but no more than 45% of potential working time in the income reference year. To reconcile information reported for the income reference period and at the moment of the interview the following individuals are also considered in this group: 1) Workers who report no work activity during the income reference period but who are working at the moment of the interview and, 2) workers with between 45% and 50% of work activity during the income reference period who do not report any work activity in either the last month of the income reference period or at the moment of the interview.

**Restricted hours**: workers who spent most or all of the reference period working 20 hours or less a week. However, individuals working 20 hours or less who are not likely to have additional work capacity, e.g. due to ongoing education or training, are excluded.

**Near-zero earnings**: individuals reporting some work activity during the income reference period but negative, zero or near-zero monthly earnings (less than one third of the statutory minimum wage for 2013). In addition to possible classification error, situations included in this group could signal potential labour market difficulties, such as underpayment and/or informal activities.

The 20-hours threshold is approximately in-line with the 45% “part-year” threshold that identifies the group with unstable jobs. For a 40-hours working week in a full-time job, 45% of full-time would correspond to 18 hours a week. However, in EU-SILC, the distribution of working hours in the main job shows a high degree of bunching at 10, 15, 20 and 25 hours a week. As the closest multiple of 5, a value of 20 hours was therefore chosen.

6. Figure 2 shows the size and evolution of the target population in Estonia between SILC survey years 2008 and 2014 (SILC survey respondents report activity status and income for the previous calendar year, so these data refer to 2007-2013). Both long-term unemployment and underemployment (as defined in Box 1 above) rose between 2007 and

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3. See the companion Profile Analysis Note for Estonia and Fernandez et al. (2016) for details.
2009 (SILC survey years 2008 and 2010) and subsequently fell until 2012 (SILC year 2013). Overall levels of labour-market inactivity remained relatively constant throughout the period in question. Underemployment had not yet returned to its pre-crisis levels by 2013 (SILC year 2014), and indeed increased in the most recent year of SILC data that was available for this analysis.

**Figure 2. Trends of population groups with potential labour market difficulties**

% of reference population, for different EU-SILC survey years

<table>
<thead>
<tr>
<th>Year</th>
<th>Persistently out of work</th>
<th>Inactive</th>
<th>Unemployed</th>
<th>Underemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>13</td>
<td>9</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>2009</td>
<td>13</td>
<td>9</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>2010</td>
<td>13</td>
<td>12</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>2011</td>
<td>13</td>
<td>14</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>13</td>
<td>15</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>2013</td>
<td>13</td>
<td>15</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>2014</td>
<td>13</td>
<td>14</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note: See Box 1 for the definitions of the three groups. Source: Calculations based on EU-SILC 2008-2014.*

7. Following the definitions outlined in Box 1, individuals with *no or weak labour market attachment* represent 31% of the *working-age population* in Estonia (Figure 3). Of those, the biggest group (59%) are the *persistently out of work* whereas the rest (41%) show *weak labour market attachment*. Of the 59% who are persistently out of work, the most common status is “unfit to work” due to illness or disability, followed in equal proportions by retirement or domestic tasks. 12% report being unemployed throughout the reference period. Among those with some work activity, most have unstable employment patterns, while only 5% worked part-time throughout the year. The “near-zero earnings” category is especially sizeable, accounting for 16% of the target population.
Figure 3. Size and composition of the population with potential labour market difficulties

Note: The six-country average is unweighted. See Box 1 for definitions of the different groups. The working age population refers to adults (18 to 64) excluding full-time students and those in compulsory military service. Source: Calculations based on EU-SILC 2014.

2.3. Employment barriers: Summary of empirical results

2.3.1. A typology of employment barriers

8. Individuals with no or weak labour-market attachment often face a number of employment barriers that prevent them from fully engaging in the labour market. Although these barriers often cannot be measured directly, proxy indicators can be developed using the information provided in survey data like the EU-SILC. Following Immervoll and Scarpetta (2012), we construct and apply a series of empirical indicators for the three main categories of employment barriers below. The label of each barrier, e.g. “lack of skills” or “high non-labour income”, refers to a specific indicator and threshold as described in Browne and Pacifico (2016) and summarised in Annex 2 below.

9. Limited work-related capabilities, evaluated along five dimensions:

- Item 1: lack of work-related skills, a combined indicator using information on the skill level of any previous job in conjunction with the person’s education level. Skills as “low” if the most recent job was in one of the lowest two categories of the ISCO-08 classification system, and if the person has not completed tertiary education.
- Item 2: health limitations, i.e. whether an individual reports long-standing (longer than six months) physical or mental limitations in daily activities.
- Item 3: care responsibilities, i.e. whether an individual has a family member who requires care and state that their reason for not working is care responsibilities, or they are the only person in the household who can provide it.
- Item 4: low recent work experience.
- Item 5: low overall work experience relative to potential experience.

10. Reduced financial work incentives, evaluated along two dimensions:
Item 1: high earnings-replacement benefits, i.e. out-of-work benefits are high relative to the individual’s potential earnings.

Item 2: high non-labour income, i.e. living in a household with high levels of income that are unrelated to own work effort.

11. Scarce job opportunities. One item only:

The risk (in a statistical sense) of remaining without a job for 12 months or longer despite active job search and availability for work. The risk is estimated with a regression model including region, age group, gender and education as independent variables. See Fernandez et al (2016) for details.

12. Employment barriers are significantly more common in the target population than among those with stronger labour market attachment, indicating that they are indeed reasonably well associated with employment outcomes. They also tend to be more common among those who have been persistently out of work than among individuals with weak labour-market attachment. This is shown in Table 2, which shows shares of individuals in the target and the reference (working-age) populations facing each of the employment barriers. The ‘high levels of non-labour income’ barrier is the only one that is (slightly) less prevalent in the target population than in the reference population: Those with strong labour-market attachment may, for example, be more likely to have a high-earning spouse, perhaps because of selection effects in the family formation process (“assortative mating”).

Table 2. Employment barrier indicators

<table>
<thead>
<tr>
<th>Insufficient work-related capabilities</th>
<th>Working age population</th>
<th>Target population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of skills</td>
<td>34</td>
<td>46</td>
</tr>
<tr>
<td>Health limitations</td>
<td>26</td>
<td>43</td>
</tr>
<tr>
<td>“High” care responsibilities</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>“Low” relative work experience</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>Lack of financial work incentives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“High” non-labour income</td>
<td>31</td>
<td>29</td>
</tr>
<tr>
<td>“High” earnings replacements</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Scarce job opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarce job opportunities</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: See text for definitions and thresholds.

Source: Calculations based on EU-SILC 2014. Working-age population: all working-age adults (18 to 64) excluding full-time students and those in compulsory military service. Target population includes members of the working-age population who are out of work throughout the income reference period (those who are “persistently out of work”) and those who work for less than 45% of the reference period, or less than 20 hours per week for more of the reference period, as well as those who work full time for most of the reference period but earn less than a third of the statutory minimum wage (these are collectively referred to as individuals with “weak labour market attachment”). For more details see Box 1.

13. “No recent work experience”, “lack of skills” and “health limitations” are the most frequent barriers in Estonia (59%, 46% and 43% of the target population, respectively) whereas “scarce job opportunities” and “high earnings-replacement benefits” are much less
common (12% and 15%). Figure 4 compares the incidence of employment barriers in Estonia with the average among the six countries. The share of individual facing different employment barriers is lower than or broadly in line with the six-country average for most of the indicators. In particular, the recent strengthening of the labour market in Estonia led to relatively few individuals in the target population being affected by “scarce job opportunities” or “no past work experience”. An exception is the share of individuals facing health limitations, which is significantly higher in Estonia (43%) than in other countries (the six country average is 32%). “High non-labour incomes” and “high earnings replacement benefits” are also somewhat more common in Estonia.

Figure 4. Employment barriers in Estonia

Note: See Annex 2 for definitions and thresholds. The six-country average is unweighted and replicates the precise definition of barriers adopted for Estonia in this paper. Because definitions are country-specific to some extent, the averages may differ from those reported in Faces of Joblessness studies for the other five countries. Source: Calculations based on EU-SILC 2014.

14. Only 25% of individuals in the target population face just a single employment barrier, about one third face two simultaneous barriers, and another third face three barriers or more (Figure 5). Even though multiple simultaneous barriers are common in Estonia, they are less so than in other countries covered by this project.

4. Figure 4 shows the six-country average using a coherent specification of the indicators corresponding to the indicators used for Estonia, even where definitions of employment-barrier indicators used in country-specific reports for the five other countries differ. See figure notes.
Identifying distinct groups for policy intervention

15. The statistical profiling analysis, reported fully in the companion Profile Analysis Note, suggests that the population with no or weak labour market attachment in Estonia can be separated into nine groups, each with sets of employment barriers that are meaningfully distinct from the other groups. Table A1 and A2 in Annex 1 report employment barriers and a range of demographic and socio-economic characteristics (such as gender, age, poverty risks, etc.) for each group. This information helps to attach indicative labels or “faces” to the members of the nine groups. The sizes of these groups, along with suggested labels are reported in Table 3.

Table 3. Potential targets of AESPs

<table>
<thead>
<tr>
<th>Group number</th>
<th>Group label</th>
<th>% of the target population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Experienced early retirees with health limitations</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Older labour market inactive adults with health limitations, low skills and limited work experience</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>Working poor</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Well-off mothers with care responsibilities</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Prime age long-term unemployed with low skills</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>Youth with limited work experience</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>Experienced prime age unemployed men with few obstacles to employment</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Unskilled mothers with care responsibilities and limited work experience</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Long-term unemployed youth without any past work experience</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Younger severely disabled</td>
<td>4</td>
</tr>
</tbody>
</table>

Notes: Group labels are based on the employment barriers with a “high” probability of occurrence within the group. See tables A1 and A2 reports the complete list of individual and household characteristics. Source: Calculations based on EU-SILC 2014.
16. One notable inference from the descriptive statistics in Annex Tables A1.1 and A1.2 is that proxy groupings, which are commonly referred to in the policy debate, such as “youth”, “women”, “unemployed”, are far from homogeneous. In some cases, these proxy labels may distract attention from the specific employment obstacles that policies seek to address as they can comprise groups with very different combinations of employment barriers. To successfully address those barriers, suitable policy responses and priorities may be quite different for each of them. For example, the results point to:

- **Two quite different groups of economically inactive mothers** who are likely to respond to policies in different ways. The “Well off mothers with care responsibilities” (Group 4) live in households with high income levels and young children requiring care. The other group (“Unskilled mothers with care responsibilities and limited work experience”, Group 8) also have care responsibilities for children but live in poorer households, have limited work experience and low work-related skills.

- **Three distinct groups with health problems.** A first group is older (“Experienced early retirees with health limitations”, Group 1), with considerable past work experience and high levels of earnings-replacement benefits. A second group is a little younger (“Older labour-market inactive adults with health limitations, low skills and limited work experience”, Group 2), has only limited work experience, and low incomes. A third group (“Younger severely disabled”, Group 10) is younger still, with no work experience at all and often has low levels of education.

- **Two separate groups of youth with labour-market difficulties.** Although both groups exhibit low levels of work-related skills, one group (“Youth with limited work experience”, Group 6) has some past professional experience while members of the second (“Long-term unemployed youth without any past work experience”, Group 9) have never had any paid employment and have been actively seeking work for at least a year.

- **Two distinct groups of prime-age unemployed.** The “Experienced prime-age unemployed men with few obstacles to employment” (Group 7) face few or none of the employment barriers considered by this analysis. In fact, after spending most of the survey reference period in unemployment, the majority have already returned to work by the time of the interview. By contrast, the “Prime-age long-term unemployed with low skills” (Group 5) have limited work experience relative to their potential and are estimated to face scarce job opportunities. The average unemployment spell among this group is much longer than for Group 7, and very few have returned to work by the time of the interview. Some have even stopped seeking employment altogether and become economically inactive.

17. A final group (“Working poor”, Group 3) includes workers with very low earnings despite generally working full-time throughout the reference period. Like Group 7, they also face only very few (and sometimes none) of the barriers to employment discussed here. The low earnings they report could be the result of volatile self-employment incomes as around a third of this group are self-employed. Another possibility is that wages are not or only partially declared in the survey. This could apply to the (majority) reporting full-time employment, and could be either a survey measurement problem, or an indication that parts of earnings are also not declared to authorities.

18. In most groups a majority face multiple simultaneous employment barriers (Figure 6). As a result, addressing one barrier in isolation might not be enough to boost employment levels significantly. For instance, about half of the “Younger severely...
disabled” (Group 10) face four or more employment barriers and another 45% have three simultaneous barriers (generally low skills, no prior work experience and scarce job opportunities). Similarly, about 75% of “Unskilled mothers” (Group 8) have three or more simultaneous barriers. From a policy perspective, these findings point to a need to carefully sequence different activation and employment support measures, and to coordinate them across policy domains and institutions.

Figure 6. Shares of individuals facing multiple simultaneous employment barriers

By group, in descending order of shares facing three or more barriers, in %

Notes: Group sizes are reported on the horizontal axis, see also Table 3 and Annex Tables A1, A2. **Group 1**: “Experienced early retirees with health limitations”, **Group 2**: “Older labour market inactive adults with health limitations, low skills and limited work experience”, **Group 3**: “Working poor”, **Group 4**: “Well-off mothers with care responsibilities”, **Group 5**: “Prime age long-term unemployed with low skills”, **Group 6**: “Youth with limited work experience”, **Group 7**: “Experienced prime age unemployed men with few obstacles to employment”, **Group 8**: “Unskilled mothers with care responsibilities and limited work experience”, **Group 9**: “Long-term unemployed youth without any past work experience”, **Group 10**: “Younger severely disabled”.

Source: Calculations based on EU-SILC 2014.
3. Activation and employment-support in Estonia: Overall policy stance

19. As a general background to the policy inventory for selected groups in Section 4, this section provides an overview of the main income-support, activation and employment-support policies. It draws on a range of key indicators describing out-of-work benefits, the Public Employment Services (PESs) and Active Labour Market Programmes (ALMPs), which are relevant across the groups identified above. It also describes key labour-market challenges and summarises government policy priorities and recent or planned reforms.

3.1. Income support: Out-of-work benefits

20. Like most other OECD and EU countries, Estonia operates a range of different income-support measures for working-age adults who have lost their job or have very low incomes. Some of these measures can be considered as earnings replacements for individuals with no (or weak) labour market attachment (e.g., unemployment insurance, maternity leave payments, disability benefits). Others operate mostly as income top-ups and may be available irrespective of work status (family benefits, housing allowances). Earnings-replacement benefits can be categorised into one of the following categories: unemployment, social assistance (guaranteed minimum income benefits, GMI), family support, disability and early retirement. Figures 7 and 8 summarise recipient numbers and spending levels for each of the main categories, while Table 4 provides more detailed information on amounts, benefit durations and the main entitlement criteria.

21. Disability benefits represent the largest category of out-of-work benefit claimants, and both expenditure and the number of recipients have grown by more than one third since 2007. Maternity, care and parental benefits together covered about 3.3% of the working-age population in 2014, and another 2.4% received unemployment benefits (Figure 7). Compared with other EU countries, Estonia spends more on the “Family” and “Early retirement” branches whereas expenditures on incapacity (sickness and disability) benefits are broadly in line with the EU and “six-country” averages. After a significant spending increase during the global financial crisis, spending on unemployment benefits and social assistance declined again and is now much lower than the EU average (Figure 8).

22. Comparing expenditures and the number of recipients of different benefits, it is clear that benefit amounts are highest for early retirement pensions and parental leave benefits. Indeed, recipients of parental leave benefits receive 100% of their previous earnings for a significant period (435 days), and those who take their retirement pensions early do so with a penalty that represents a less than actuarially neutral reduction (in other words, total expected pension payments over the whole of retirement are higher for those

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5. This study is focused on working-age individuals. Therefore, earning replacement benefits like old-age pensions or survivor pensions, who are mostly targeted on retirement and under 18 individuals are not considered. Other earnings replacement benefits like sick leave schemes or work accident insurance payments are not included for (a) methodological reasons and (b) because they are less linked to the labour market situation.
who retire earlier, OECD, 2015a; for discussion of the concept of actuarial neutrality, see Queisser and Whitehouse, 2006). By contrast, incapacity pensions, unemployment insurance benefits and (particularly) means-tested support are much less generous. The replacement rate for unemployment insurance benefits is 50% for the first 100 days and then 40%, while recipients of social assistance (GMI) benefits typically have income substantially below relative poverty thresholds (Figure 10).

Figure 7. Out-of-work benefits for working-age adults in Estonia - Recipients

Recipients of earnings replacement benefits, percentage of population aged 18-64

Note: The categorisation of social benefits (branches) mostly follows Eurostat ESSPROS definitions (http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Social_protection_benefits). Information on the programmes in each category is shown in Table 4. The number of recipients does not consider the Disability Adult Allowance (DAA), as in many cases this benefit can be cumulated with the incapacity pension (http://www.stat.ee/72565). However, the policy branch “incapacity to work” in Panel B includes the spending for DAA as the SOCX database does not provide the breakdown by type of benefit for this branch. Note that part of this spending represents DAA payments for individuals above the retirement age. Panel A: (1) Full-year equivalent; (2) full length benefit equivalent; (3) total recipients over the year; (4) figures for early retirement spending in 2010 are lower due to temporary measures (regarding contributions to pension schemes) taken by the Estonian administration in 2009

Source: OECD SOCX database.
Figure 8. Out-of-work benefits for working-age adults in Estonia - Expenditure

Social spending by social policy branch, percentage of GDP

Note: The benefits considered in each branch are: (1) incapacity pensions; (2) maternity and parental benefits; (3) unemployment insurance/allowance; (4) subsistence benefit. The programme names in the national language, the entitlement criteria and the duration of these benefits can be found in Table 4. Country averages are unweighted.
Source: OECD SOCX database.
Table 4. Main out-of-work benefits in Estonia: entitlement rules, amounts and duration

2014 (reference year of results in Sections 1 and 2)

<table>
<thead>
<tr>
<th>Social protection branch</th>
<th>Programme name (Estonian name)</th>
<th>Entitlement criteria</th>
<th>Amount</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unemployment insurance</strong></td>
<td>(Töötuskindlustushüvitus)</td>
<td>Unemployed and not entitled to unemployment insurance (either because left work voluntarily, insufficient contribution record or unemployment insurance expired). Must comply with job search requirements.</td>
<td>EUR 112.3/month (11% of AW), means tested against individual income. Benefit withdrawn if any paid work.</td>
<td>180 days if has made less than 56 months of social security contributions (SSCs), 270 days if has made 56–110 months of SSCs, 360 days if has made 111 or more months.</td>
</tr>
<tr>
<td><strong>Unemployment allowance</strong></td>
<td>(Töötutoetus)</td>
<td>Unemployed and not entitled to unemployment insurance or unemployment insurance expired. Must comply with work search requirements.</td>
<td>EUR 112.3/month (11% of AW), means tested against individual income. Benefit withdrawn if any paid work.</td>
<td>270 days minus any period of unemployment insurance entitlement. 210 days if was fired from previous job.</td>
</tr>
<tr>
<td><strong>Subsistence benefit</strong></td>
<td>(Toimetulekutoetus)</td>
<td>Benefit can be withdrawn if claimants repeatedly refuse job offers.</td>
<td>EUR 90/month for first person (9% of AW), EUR 72/month (7% of AW) for each subsequent family member. Additional amount for housing costs that varies by family size. Means tested against family income.</td>
<td>Potentially unlimited, subject to monthly reassessments.</td>
</tr>
<tr>
<td><strong>Pension for incapacity for work</strong></td>
<td>(Töövõimetuspension)</td>
<td>Disability level of at least 40%. Must have made a minimum number of years of social security contributions that varies by age.</td>
<td>(Base amount + variable amount) disability proportion. Base amount in 2014 was EUR 134.91/month (13% of AW), variable amount of EUR 4.96/month (0.5% of AW) per year of service up to 1998 and related to contributions since 1999 but subject to minimum amount of EUR 148.80/month (14% of AW). Minimum final amount of EUR 148.90/month (14% of AW). Not means tested and no work conditions.</td>
<td>Potentially unlimited up to normal retirement age, but disability reassessed at least every five years.</td>
</tr>
<tr>
<td><strong>Early retirement pension</strong></td>
<td>(Ennetähtaegne vanaduspension)</td>
<td>Must be within 3 years of normal retirement age and have made 15 years of SSCs.</td>
<td>Base amount of EUR 134.91 (13% of AW) per month plus variable amount of EUR 4.96/month (0.5% of AW) for each year of service up to 1998 and related to contributions since 1999, with penalty of 0.4% for each month of early retirement</td>
<td>Unlimited</td>
</tr>
<tr>
<td><strong>Maternity benefit</strong></td>
<td>(Rasedus-ja sünnitushüvitus)</td>
<td>Must be in paid work prior to giving birth</td>
<td>100% of previous wage</td>
<td>140 days, but must start within 30 days of the due date</td>
</tr>
<tr>
<td><strong>Parental leave benefit</strong></td>
<td>(Vanemahüvitus)</td>
<td>Parents taking leave from employment to look after children.</td>
<td>100% of the reference wage for the period of leave. Minimum: €320 (3% of AW) Maximum: €378 (23% of AW)</td>
<td>435 days</td>
</tr>
<tr>
<td><strong>Care benefit</strong></td>
<td>(Hooldushüvitus)</td>
<td>Must be taking time off work to care for a family member</td>
<td>80% of reference wage</td>
<td>14 days to care for a child under 12, 7 days for other family members</td>
</tr>
</tbody>
</table>

Note: The average wage (AW) is €12,338 per year for full-time / full-year employment. Source: Missoc and OECD tax-benefit policy databases.
23. Spending on **unemployment benefits** is relatively low in Estonia both because of lower unemployment than in many other EU countries, and because a comparatively small share of unemployed receive benefits (Figure 9). In 2014, the “pseudo” coverage rate, calculated as the number of unemployment benefit recipients divided by the number of ILO unemployed, was 42%. This is despite the two layers of unemployment support, and the relatively long durations of insurance benefits (up to 360 days) for those with very long contribution records. To claim unemployment insurance benefits, individuals must have left work involuntarily or have been the victim of misconduct on the part of their employer. Those who quit their jobs voluntarily, or whose insurance benefit expires, may claim unemployment allowance. But unlike similar benefits in other countries, unemployment allowance is also subject to a minimum employment requirement in most cases. Eligibility conditions, i.e., behavioural requirements for those with a benefit entitlement based on their past employment, are relatively strict and include active job search, also during participation in ALMPs (Figure 9, Panel B). Meetings with the job counsellor must be attended at least once a month. Legislative sanctions for failures to comply with such requirements are comparatively severe: claimants can have their claims terminated if they refuse job offers or participation in ALMPs, for example. In practice, however, these sanctions are rarely applied: in 2015, there were only 552 cases of sanctions being applied by the Unemployment Insurance Fund to unemployment insurance benefit recipients, almost all of which were for not attending meetings with the Unemployment Insurance Fund (for comparison, there were around 22,000 new claims of unemployment insurance benefit during 2015; source: Unemployment Insurance Fund statistics).

24. **Guaranteed minimum income benefits** are available to those who have no or low income from other sources. They can be received alongside unemployment benefits. GMI amounts are comparatively low in Estonia (Figure 10): in 2014, a single person without children who received GMI benefits and had no other income faced very substantial poverty risks, with an income of only around 15% of median household income. GMI schemes are run by municipalities in Estonia. Municipalities are free to (but are not obliged to) impose job search requirements such as registering as unemployed, and can withdraw benefits if job offers are refused. In Estonia support for housing costs is given as part of the GMI benefit, and most of those receiving GMI benefits receive support for housing costs. Those receiving support for housing costs have higher overall benefit entitlements, but still significantly below commonly used relative poverty thresholds. Financial work incentives for the unemployed are generally strong: net replacement rates, i.e. the ratio of income when out of work to income in work are among the lowest across OECD countries (Figure 11).

25. There are far more claimants of **disability benefits** than of unemployment and social assistance benefits. Those who have a disability assessed to be at least 40% of their work capacity can claim an incapacity pension with an amount equal to the retirement pension received by someone with 30 years of contributions (or the amount of pension entitlement they have accrued up to that point if that is higher), multiplied by the assessed degree (percentage) of their functional limitation. The pension can be supplemented by disability allowances for individuals facing additional disability-related costs (such as the costs of care or rehabilitation). Recipients of incapacity pensions are assessed at least once

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6. For example, if the employee is the victim of discrimination, the employer does not provide the promised number of hours of work, the employer has not paid wages on time or the employment contract is not legally valid.

7. However, in 2016 the subsistence level was increased by 44%.
every five years. Those assessed as facing a recognised limitation can keep receiving the incapacity pension for an indefinite period until retirement age. All recipients can undertake paid work at the same time without incurring a reduction of their benefit entitlements.

26. Early retirement pensions are also relatively common, and both recipient numbers and expenditures are now significantly higher than before the global financial crisis. Early retirement pensions can be taken up to three years before standard retirement age (currently 63, though for women this was 62 in 2014), so long as overall contributions are at least 15 years (the minimum to become entitled to an old-age pension). There is a penalty of 0.4% of the full pension amount for each month that retirement is brought forward. In addition, there are numerous schemes for particular groups that reduce the standard retirement age by between 5 and 10 years, so long as certain contribution conditions have been met. An OECD review conducted as part of Estonia’s accession to the OECD recommended that these latter early retirement schemes be reconsidered. It also recommended applying an actuarially fair penalty to early retirement pensions to reduce the costs of these schemes and encourage longer working lives (OECD, 2010a). Reforms to early retirement pensions are being prepared with the aim of increasing flexibility and closing down schemes that allow very early retirement.

27. Earnings replacement benefits in the category of family benefits are more costly than in the average EU country. Maternity benefits last for 140 days and are paid at 100% of the previous wage. The duration is roughly in line with the average length of maternity benefits in OECD countries. But benefit levels are lower in most of them, for instance, only eight EU countries maintain 100% of the previous wage throughout the leave period (source: OECD Family database). Estonia is also exceptional in terms of the long duration of parental benefits, which can be received for a further 435 days, and also at 100% of the previous wage. It is subject to minimum and maximum amounts (31% and 231% of the average wage respectively in 2014). It is possible to work while claiming parental leave benefits, but the benefit amount is reduced is earnings are greater than the minimum amount of the benefit. Overall, Estonia has the most generous system of maternity and parental benefits in the OECD in terms of the number of full-weeks’ pay covered (source: OECD Family Database). Parents can also receive compensation for short work absences taken to look after sick children through care benefits.

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8. The most important of the schemes are those for people who have spent time caring for disabled children, those for professions considered dangerous, and those for professions where the ability to perform key tasks is considered to decline prior to reaching standard retirement age.
Figure 9. Accessibility of unemployment benefits

Panel A: Unemployment and pseudo-coverage rates

Panel B: Strictness of benefit eligibility criteria, 2014

Note: The “strictness” sub-categories cover the following items. “Strictness of sanctions”: sanctions for voluntary unemployment, for refusing job offers (first/repeated) and for failure to participate in counselling or ALMPs (first/repeated); “Strictness of job-search requirements and monitoring”: frequency of job-search monitoring and required documentation of job-search; “Strictness of availability requirements and suitable work criteria”: availability during ALMP participation, demands on occupational and geographical mobility, other valid reasons for refusing job offers.

Figure 10. Income levels provided by cash minimum-income benefits

Net income value in % of median household incomes, 2014. Single adults without children

Source: OECD tax-benefit models
Figure 11. Work disincentives for out-of-work working-age adults

Net replacement rates for unemployment benefit and social assistance recipients, 2014. Single adults without children

Note: Net replacement rates (NRRs) show the proportion of net income in work that is maintained after a job loss. * Social assistance benefits are assumed to be available subject to relevant income conditions. For individuals receiving unemployment benefits the NRRs are averages over a 24-month unemployment spell. All figures are calculated for a prime-age worker (aged 40) with a “long” and uninterrupted employment record. Results are shown for two levels of previous earnings: the 2nd and the 5th decile of the full-time earnings distribution. Where receipt of benefits is subject to activity tests (such as active job-search or being “available” for work), these requirements are assumed to be met. The results do not account for housing benefits. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (i.e. monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months.

Source: OECD tax-benefit models.

3.2. Active labour market policies

28. Active labour market policies in Estonia are administered by the Estonian Unemployment Insurance Fund (UIF) and are paid for by a combination of public funds (general tax revenues), EU funds and resources the UIF receives from unemployment insurance contributions. The UIF is responsible for funding unemployment insurance benefits and administering both unemployment insurance and assistance benefits, job mediation services (public employment services, PES) and other active labour-market policies. The UIF is also responsible for administering pay-outs of severance benefits, unpaid wages, and compensation for unused holidays to those who lose their jobs following their employer’s insolvency.
29. The UIF had 549 employees in 2015; this will rise to 916 by 2018 to accommodate the increase in the number of registered unemployed with disabilities resulting from the Work Ability reform discussed in Section 3.3 below (source: Ministry for Social Affairs). Targets are set for the number of clients per caseworker: specialist counsellors for those with disabilities should have around 100 clients each, case managers for other harder to help groups should have around 140 clients each and general job mediation counsellors around 220 clients each. As the number of registered unemployed increases as a result of the Work Ability Reform, resources available to the PES are also being increased, so these targets are being met on the whole.

Figure 12. Spending for Active Labour Market Policies by policy area
per ILO unemployed as % of GDP per capita, composition in 2007 and 2014

Note: Unweighted country averages. The pie charts show the share of total spending as reported in the bars. Source: Calculations based on the OECD LMP database.

Public employment services

30. At under 3% of GDP per capita, spending on PES per unemployed jobseeker is also substantially lower than the EU and OECD country averages (Figure 12). This does however represent a significant increase in Estonia since 2007, despite unemployment being higher in 2014 than in 2007. However, this observed spending increase partly reflects the merger of the Unemployment Insurance Fund with the Estonian Labour Market Board in 2009, rather than a genuine increase in resources for PES activities: the PES now undertakes more functions such as the administration of unemployment insurance benefits.

31. Labour Force Survey (LFS) data indicate that the PES is not used widely as a source of finding and using information on job vacancies in Estonia. As in several other countries, only very few (some 5%) of those who have recently started a new job say that they found it through the PES (Figure 13). Around half of those currently registered with the PES reported using it as a source of information on job vacancies in the previous four weeks (Figure 14). LFS tabulations available from Eurostat suggest that more common channels of job search in Estonia include studying advertisements (74% of all unemployed
in 2014), as well as informal contacts such as friends or family (59%). One possible reason for the limited “market share” of PES in newly started jobs is a fairly low enrolment rate, i.e., a low share of jobseekers registering as unemployed. According to Estonian Labour Market Statistics collected by Statistics Estonia for 2016, 54% of unemployed in Estonia were registered with the UIF.

**Figure 13. Reliance on PES among recent job starters**

in % of employees aged 25-64 who started a job during the previous 12 months, 2014.

*Note*: Unweighted averages. Norway and the Netherlands are excluded due to high incidence of non-response in the data (more than 30%). Data refer to 2013 for Germany.

*Source*: Calculations based on EU-LFS 2014.

**Figure 14. Reliance on PES among current jobseekers**

in % of registered unemployed among the 25-64 population, 2014.

*Note*: Unweighted averages. Norway and the Netherlands are excluded due to high incidence of non-response in the data (more than 30%). Data refer to 2013 for Germany.

*Source*: Calculations based on EU-LFS 2014.

10. Source: Eurostat table lfsa_ugmsw.
Active labour-market programmes

32. Notwithstanding the central role of the PES as “job broker” (i.e. placement and job-search assistance) a clear majority of total spending on active labour-market policies in EU and OECD countries goes towards ALMPs that seek to address specific employability issues. This is not the case in Estonia, however, where slightly more than half of total spending is on PES (51% in 2014, versus an EU average of 24%, see Figure 12). Participation in ALMPs is also comparatively low in Estonia: under 1% of the labour force participated in ALMPs in 2014, less than one quarter of the EU average (4.5%, Figure 15).

Figure 15. Spending on ALMPs and number of registered unemployed in Estonia, 2007-2020

Source: Estonian Unemployment Insurance Fund.

33. Spending on ALMPs is expected to increase significantly in the next few years however as ALMPs are extended to other groups, namely those on disability benefits (through the Work Ability Reform discussed in Sections 3.3 and 4.1), jobseekers above normal retirement age and those in employment with low skills (Figure 15). Although the Work Ability Reform will also increase the number of registered unemployed – those assessed to have a partial work disability will be required to register with the PES – spending per registered unemployed will approximately double, which would take spending on ALMPs per unemployed as a percentage of GDP per capita in Estonia above the average for the six countries covered by this project in 2014, but would still leave it below the 2014 EU and OECD averages (recall Figure 12). It is less clear what will happen after 2020. Most spending in this area is covered by EU funds – for example, of the €199 million cost of active measures, technical aids and sheltered employment for those affected by the Work Ability Reform plus the costs of setting up the system over the period 2014-2020, €169 million will come from EU funds (Riigikontroll, 2017). The amount of such support available is likely to fall in the next multiannual financial framework period from 2021, so

11. In 2014, there were no ALMPs specifically designed for unemployed people (Figure 12): these have recently been introduced as part of the Work Ability Reform (see Sections 3.3 and 4.1).
this funding will have to be met by either the state budget or from unemployment insurance contributions.

34. The number of individuals benefiting from employment incentives increased in the aftermath of the financial and economic crisis (Figure 16). It has been falling since then but has remained above pre-crisis levels. The number of participants in training programmes peaked in 2012 at 0.6% of the labour force, but this too has since decreased as unemployment has fallen.

**Figure 16. Participation in active labour market programmes in Estonia and other countries**

![Participation in active labour market programmes in Estonia and other countries](image)

Source: OECD LMP database

35. Training activities represent the biggest category of ALMP spending in Estonia (36% of the total in 2014). Spending on programmes for disabled individuals (mainly sheltered and supported employment and rehabilitation measures) and direct job creation programmes (public work programmes run by municipalities), but also on employment incentives (targeted employment subsidies) are extremely small compared with other countries. For those unemployed who have a recent employment record, are entitled to unemployment benefits and are hence obliged to register with the PES, this distribution of spending may represent a relatively efficient use of the limited resources dedicated to active labour market policies in Estonia. For instance, PES and training programmes tend to have better medium-to-long-term outcomes than job creation measures (Card et al., 2010, 2015). However, the current distribution of ALMP resources in Estonia also indicates significant gaps in the support targeted to some groups with special needs: groups further from the labour market such as those with disabilities are likely to require more intensive support than the registered unemployed.

36. The services provided by the PES are best seen as a package of policy tools, including financial incentives, obligations of jobseekers, and programmes that address specific employment barriers on the supply and demand side. To characterise countries’ overall activation stance, it is useful to examine how they differ in terms of the balance of these different measures. Figure 17 contains two scatter plots of the indicators presented earlier in this section. Panel B shows a positive (non-linear) relationship between “active”
spending per unemployed and the generosity of out-of-work support as proxied by the net replacement rates for unemployment benefit recipients. Estonia spends relatively little on active labour market policies: other countries with similar levels of generosity of out-of-work benefits spend more on average (e.g. Poland and Portugal), and some with lower benefit replacement rates spend much more (Hungary and Korea). Panel A shows a weak positive relationship between strictness of benefit eligibility and generosity of out-of-work support. Estonia has particularly strict benefit eligibility criteria when compared with countries that show comparable benefit generosity (e.g., Latvia, Poland, Slovak Republic, Spain), and other countries with similarly (or less) strict eligibility criteria have more generous unemployment benefits (e.g. Portugal, Slovenia, Luxembourg and the Netherlands). This may suggest, for instance, that the increase in unemployment benefit caseloads could be comparatively mild if generosity were increased.

Figure 17. Balance between different activation policy measures, 2014

Note: For the strictness of eligibility criteria see notes to Figure 9. Spending on active labour-market policies includes: PES, training, employment incentives, disabled, direct job creation, and start-up incentives. Spending is per ILO unemployed and defined in % of GDP per capita. Net replacement rates are for a prime-age worker (aged 40) with a “long” and uninterrupted employment record and are averages over 60 months, four different stylised family types (single and one-earner couples, with and without children) and two earnings levels (67% and 100% of average full-time wage). Households can receive social assistance and housing-related benefits depending on eligibility.


3.3. Policy priorities and recent or planned reforms

37. The overall employment rate in Estonia is high, but there remain some groups for whom employment lags behind comparator countries, including youth and mothers with young children. This sub-section sets out which groups have relatively low employment rates in Estonia, as well as areas where policies appear not in line with international best practice. It also summarises selected policy initiatives intended to increase employment.

38. Estonia has a lower rate of youth employment than other EU countries partly of higher participation in tertiary education among this group, but also because the employment rates of those who do not have a tertiary degree are lower than in many other
countries (OECD, 2015a). This is partly a result of higher participation in tertiary education among this group, but also because the employment rates of those who do not have a tertiary degree are lower than in many other countries (OECD, 2015a). One reason is that vocational qualifications, which tend to lead to better employment outcomes than general upper secondary education programmes, are less common than in other countries. But the outcomes of those with a vocational qualification are also weaker than in other parts of Europe, perhaps because the courses involve less work-based training than in other countries – most students in vocational training only undertake a 4-6 month internship – and there are very few apprenticeships (OECD, 2015a). The Estonian government has taken measures to improve vocational education, including upgrading the technical equipment available in vocational schools, setting up the OSKA forecasting system to predict employers’ future skills demands, and improving coordination among stakeholders (including the PES, employer bodies, trades unions and government ministries) to monitor employment needs. Other recommendations in this area include exploring a system that would allow firms to share apprentices and introducing a lower minimum wage for apprentices (OECD, 2015a). Currently the minimum wage, which is 40% of the median, also applies to apprentices, and the resulting costs may deter employers from investing into apprenticeships. A further way to lower the costs of apprenticeships to employers would be to reduce taxes and social security contributions that are payable for this group (OECD, 2015a).

39. Employment rates for women with children aged 0-3 are low in Estonia despite high female employment rates overall. The gender earnings gap is also high relative to other countries at 29.9% in 2013 (compared to an EU average of 16.4%; European Commission, 2016). The number of individuals who are economically inactive for family reasons relative to the number of children aged under 4 is high in Estonia (Figure 18). Women gradually start returning to work after their youngest child becomes eligible to start kindergarten at the age of 18 months (Figure 19), but this process has been slowed in the past because of a lack of places. The number of childcare places has recently been expanded to reduce capacity constraints (European Commission, 2016). Also, there are plans to allocate some parental leave to the father on a “use-it-or-lose-it” basis, and labour inspectors have been instructed to ensure that the principle of equal pay is being observed, both of which should encourage greater labour market participation among mothers of young children.
Figure 18. A comparatively large number of people are economically inactive for care reasons

Number of people economically inactive for family reasons divided by number of children aged under 4, 2014

Source: Authors’ calculations using Eurostat data.

Figure 19. Women start to return to work when their youngest child can go to kindergarten

Number of women who are economically inactive for family reasons by age of youngest child (months), average over 2011-2013

Source: Eesti Pank calculations using EE-LFS

40. Strengthening ALMP resources has been recommended by European Commission and OECD country reviews (European Commission, 2016; OECD, 2015) and spending remains comparatively low despite recent increases in the budget of the Unemployment Insurance Fund, expansions of training programmes and job counselling, and the introduction of a temporary mobility allowance to help with travel to work costs. Planned increases in spending to 2020 should narrow the gap with the EU and OECD averages.
considerably, however: Figure 15 showed that spending per registered unemployed will approximately double between 2015 and 2020.

41. Financial work incentives are relatively strong for active jobseekers, but this is mainly because benefit levels are low. The tax wedge on labour income is comparatively high at low earnings levels (Figure 20), chiefly because of high employer social security contributions. The overall tax burden has been alleviated by recent changes such as reducing income tax rates, increasing the tax-free allowance and, in 2016, an income tax rebate for those with low incomes. Another large in the tax-free allowance is planned for 2018, replacing the tax rebate for those with low incomes. These changes are likely to reduce the tax wedge for low earners somewhat, but still leave it above the OECD average.

**Figure 20. Tax wedge on labour, 2014**

% of labour cost, 2014, single person at 67% of average earnings, no children

Source: Authors’ calculations using OECD tax-benefit models.

42. Early retirement and incapacity pension schemes are expensive, taking up a quarter of total spending on pensions. The OECD (2015) has suggested shifting expenditure from these pensions to means-tested support for the unemployed: it is likely that better targeting of this support would help reduce Estonia’s high poverty rate among those not in work. In part, this can be related to a high incidence of health problems in Estonia, particularly among lower-income groups (Figure 21). However, these benefits might also be being used as a substitute for unemployment benefits among the longer-term unemployed with health problems who nevertheless have significant remaining work capacity: claimant rates of disability benefits are much higher in certain regions that have higher unemployment rates (Figure 22), and onflows to these benefits increased during the economic and financial crisis (Riigikontroll, 2017). This suggests that incapacity pensions are being used as a substitute for unemployment benefits.

43. It is also notable that claim rates are particularly high in Russian-speaking areas such as Ida-Viru (Figure 22). Russian-speaking minorities see lower wages in the labour market than native Estonian speakers with similar levels of education, even if they are able
to speak Estonian, suggesting that they face discrimination in the labour market (Toomet, 2011).

44. Recent changes have replaced incapacity pensions with a new Work Ability Allowance that places stronger emphasis on work capacity assessment, requires those with some work capacity to register as unemployed, and gives participants access to activation measures. Recipients are eligible for employment-support measures available to other unemployed, but in addition, those with limited ability to work can access specially designed services, and are entitled to employment incentives after a shorter waiting period, and for longer, than other groups. These measures have been available to those with work-related disabilities on a voluntary basis since January 2016 (claims of the new Work Ability Allowance only started in July). So far, it has been notable that participants have on the whole chosen programmes that are available to other unemployed rather than those specifically designed for people with disabilities. A total of 5,502 people with limited work capacity entered ALMPs between January and August 2016 and the most popular choices have been training, work trials and work-related rehabilitation (source: country responses to OECD policy questionnaire). In view of the voluntary nature of programme participation during the early phase of the initiative, those who have registered for services so far are likely to be particularly motivated to look for work or to have less severe disabilities. The take-up of more specialised services may increase once other groups are added to the stock of Work Ability Allowance claimants.

**Figure 21. Individuals reporting a long-standing health problem, by income quintile**

<table>
<thead>
<tr>
<th>% of population aged 16 and over, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>First quintile</td>
</tr>
<tr>
<td>Fifth quintile</td>
</tr>
</tbody>
</table>

Source: EU-SILC 2015.
Figure 22. Recipiency rates of incapacity pension by region

in % of working age population, 2014

![Map showing recipiency rates of incapacity pension by region in Estonia in 2014.]

Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: Centar (2015), Figure 17.

45. The size of the shadow economy in Estonia is large compared to most other EU countries: Statistics Estonia estimates it to be 4.6% in 2006, but other estimates are much higher, ranging from 15% of GDP (Putniņš and Sauka, 2015) to 26% of GDP (Schneider, 2015). Schneider (2015)’s estimates for Estonia are higher than for most other European countries. The most important undeclared income sources are thought to be “envelope wages” (where employment is properly registered, but part of the remuneration goes undeclared and is, e.g., paid “cash in hand”) and fully informal / undeclared employment (Putniņš and Sauka, 2015). In response to these concerns, the Estonian government has introduced a national register of employees. New employees must be entered on the register two weeks before starting work and the register is used to ensure compliance with both taxes and social security contributions and labour market regulations.

Note: Additional suggestive evidence of widespread tax evasion is given by Kaarna (2016), who shows that two thirds of those registering new Toyota Land Cruisers reported incomes to the tax authority of below the average wage.
4. Overcoming employment barriers: Policy challenges and priorities for selected groups

46. The remainder of this paper focuses on the policy settings relevant for three of the ten groups identified by the statistical clustering analysis and examines whether the policies are well suited for addressing the main employment barriers that group members face. The groups selected for the policy inventory are as follows. The selection reflects discussions with national authorities and with the European Commission on contemporary policy debates, and on the expected added value that the analysis is expected to provide in this context:

- “Older labour market inactive adults with health limitations, low skills and limited work experience” (19% of the target population or 6% of the reference population).
- “Working poor” (15% of the target population or 5% of the reference population).
- “Unskilled mothers with care responsibilities and limited work experience” (5% of the target population or 2% of the reference population).

47. The first two of these groups are among the three largest groups identified in the clustering analysis, and are also groups who might benefit from labour market services that are offered by the Estonian Unemployment Insurance Fund. Poverty rates among these two groups are high, signalling that their re-integration into the labour market is also of significant broader social concern.

48. The first and the third groups are of particular policy interest in Estonia at the moment, the first because of the Work Ability reform, and the third because changes to parental leave are being introduced with the aim of increasing labour market participation among this group.

49. The next three sub-sections describe the main employment barriers faced by each of these three groups and provide an inventory of policy measures that are explicitly aimed at them or are likely to be available to group members. Each section begins with a box containing a Venn diagram showing extent and degree of overlap of the main barriers characterising the group, as well as other important individual and household characteristics occurring among the group. Together, this information can help in attaching labels (“faces”) to group members, although labels are necessarily arbitrary to some extent. Table A1.2 in Annex 1 reports a more complete list of individual and household characteristics.

4.1. Group A: “Older labour-market inactive adults with health limitations, low skills and limited work experience”

50. This group consists of older (average age 53) economically inactive working-age people: most describe their labour market status as being unfit to work for health reasons. 89% of Group A report long-standing physical or mental health problems that cause limitations in daily activities (with a third reporting “severe” limitations). They have all some past work experience (20 years, on average) but for the majority (56%) this is “low”
relative to their potential experience (less than 60% of the time since they left full-time education). In addition to poor health and low relative work experience, 58% of group members have also low skills: that is to say, their previous employment was in a job in one of the two lowest categories of the ISCO-8 classification system and they mostly have an upper secondary education. On average, members of Group A face 2.4 simultaneous employment barriers. Members of Group A tend not to have dependent children and are most likely to either live with a partner or alone. Most do not live with another adult who is in paid work. Most group members have low household incomes: half live in households in the bottom income quintile, and 54% are at risk of poverty (defined as disposable income below 60% of the national median).

**Box 2. Group A: “Older labour market inactive adults with health limitations, low skills and limited work experience”**

<table>
<thead>
<tr>
<th>Main employment barriers</th>
<th>Selected characteristics</th>
<th>% of the Target Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>- 53 years old (average)</td>
<td>19</td>
</tr>
<tr>
<td>Low work experience</td>
<td>- Inactive/Unfit to work</td>
<td></td>
</tr>
<tr>
<td>(56%)</td>
<td>- 20 years of paid work (average)</td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>- 12.8 years of schooling (average)</td>
<td></td>
</tr>
<tr>
<td>(58%)</td>
<td>- 2-adult family without children</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- At risk of poverty</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Average equivalised disposable income: €4618 (1st quintile)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Average number of simultaneous employment obstacles: 2.4</td>
<td></td>
</tr>
</tbody>
</table>

**Income support**

51. Most members of Group A receive disability benefits (70%) or early retirement pensions (23%). As previously discussed, these benefits are more generous than generalised social assistance programmes, but still leave members of this group well below the poverty line. As shown in Table A.1.2, group members who receive disability benefits receive an average of €2,523 per year, and those who receive early retirement pensions receive an average of €2,962 per year.

52. Before going onto disability benefits, individuals often claim sickness benefits. Employees lose pay for the first three days they are on sick leave, then sickness benefits are paid by the employer for the next ten days and by the government thereafter. It has been shown that Estonians who move onto permanent incapacity often spent more than 48 days on sick leave in the previous year: 9.2% of those who spent more than 48 days on sick leave in 2013 moved on permanent incapacity in 2014, whereas only 0.9% of those with less than 48 sick-leave days in 2013 moved on to permanent incapacity in 2014. A survey of disability benefit claimants found that most felt that early intervention would have slowed down or prevented the deterioration of their health, suggesting that targeting early interventions on those with long periods of sick leave might reduce flows on to disability benefits. Encouraging individuals to work part-time while receiving sickness benefits if they are able to do so might also prevent flows on to disability benefits by keeping individuals engaged in the work place (Centar, 2015). Combining sick-leave with part-time
work is currently not allowed in Estonia and part-time work in general is not common or actively encouraged.

53. As well as studying the barriers to employment that are faced by Group A, it is also instructive to note which barriers this group does not face. In particular, earnings-replacement benefits are high relative to (i.e. at least 60% of) estimated potential earnings in work for only 17% of Group A. Furthermore, the structure of incapacity pensions and the disabled adult allowance are not means tested and can be claimed by those in paid work, so benefits are not reduced when an individual starts work, so long as this does not lead to a reassessment of their disability status. Together, this suggests that work disincentives are not a major concern for Group A (indeed, many of those who receive incapacity pensions work at the same time, and the employment rate among those with disabilities is relatively high in Estonia (OECD, 2010b)).

54. Given their work-limiting health conditions, members of this group might prefer to work part time rather than full time. However, part-time work is relatively uncommon in Estonia, partly because of the comparatively high tax wedge on part-time work (Figure 19). This is largely a result of the high employer social security contribution rate and a minimum employer social security contribution that is also relatively high. The minimum is intended to make under-reporting of working hours and wages less attractive but, in the process, creates barriers for genuine, productive and welfare-enhancing forms of part-time work. Plans to significantly increase the tax-free allowance in income tax in 2018 will reduce the tax wedge but not the part that is due to the minimum social contribution.

**Figure 23. Tax wedge on part time work**

Single person, no children, 33% and 50% of average wage, 2014

Source: Authors’ calculations using OECD tax-benefit models.

55. The minimum social charge is not the only reason behind low rates of part time working in Estonia, however. Many groups are exempt from the minimum charge, including young people, pensioners and parents with children under 3, and part time work

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13. The minimum social tax can be spread across multiple part-time jobs, though this of course does not help those who only wish to work part time.
is not frequently observed among these groups either. Cultural factors may play a role and interlocutors of the OECD’s policy mission frequently mentioned low wages in Estonia as a key factor reducing the demand for part-time jobs by workers. Part-time wages are also low in other countries, however, and the group of benefit recipients considered here would be significantly better off if they took a part time job as they would not see any reduction in the benefits they received.

Public employment service and active labour market programmes

56. During 2013 and 2014, the reference period of the household data used in this analysis, PES registration was not required for claimants of incapacity pensions in Estonia, though it was possible to register as unemployed on a voluntary basis. In January 2016, before the introduction of the Work Ability reform, only 13% of those who were registered unemployed were disabled (this had increased to 17% by August 2016 as more services for those with work-related disabilities started to be introduced as part of the Work Ability reform). As there are far more claimants of disability benefits than of unemployment benefits (see Figure 7), relatively few members of Group A would have been registered as unemployed in 2014.

57. Work-related training is likely to be a key area of ALMPs for Group A. In general, low-skilled individuals have much lower employment rates in Estonia and the proportion of people who are under-skilled for their job is higher than the average for OECD countries (Figure 24). The proportion who are over-skilled is relatively low.

Figure 24. Proportion of employees who are over- and under-skilled for their occupation

% of all employees

Notes: Employees are considered over-skilled if their skill level is above the skill level of the 95th percentile of those in the same occupation who consider that their skill level is well matched for their job, and under-skilled if their skill level is below the 5th percentile of this group. Data for Belgium refers to the Flanders region, and United Kingdom data include England and Northern Ireland only.

Source: Figure 5.7 of OECD (2016).
58. To improve skills match in the labour market, the Estonian government has developed a skills forecasting system called OSKA. This new system uses a combination of quantitative and qualitative methods – interviews with experts in different sectors, surveys of employers, data on salaries, the ages of current workers in different jobs – to identify occupations where labour shortages are likely in coming years. So far, studies of five sectors of the economy have been published, with 15 more to follow in the coming years. Under the new ‘unemployment prevention measures’ introduced in May 2017 and discussed in Section 4.2 below, those without health problems can only undertake training for occupations classified among one of the shortage categories. The system will also be used to plan the provision of study places and be careers advisors. However, the system does not currently provide information at a regional level, suggesting that it may not directly reduce skills mismatches at the regional level.

59. Despite the need for better skill levels among Group A, participation in education and training is relatively low (Figure 25). In Estonia, less than 1% of those aged 45-64 who are economically inactive for health reasons have taken part in education or training in the previous month. In part, this low rate may reflect the multiple employment barriers of this group, but the very low level in Estonia compared to better-performing countries is striking. Take-up of training offered by the PES also appears to be lower among older individuals: only 14% of those entering work-related training offered by the PES were aged 55 and over, whereas this age group made up around 17% of the registered unemployed (source: Unemployment Insurance Fund statistics).

Figure 25. Participation in education and training

Age 45-64 and economically inactive for health reasons, 2014, in %

Note: Countries with fewer than 100 observations for this group excluded.
Source: Authors’ calculations using EU-LFS.

60. Many opportunities for adult learning are available in Estonia. These include formal basic education for those who did not finish general secondary education (around a quarter of Group A do not have an upper secondary qualification), formal vocational education including apprenticeship learning, and less formal vocational courses. The last of these have been shown to have positive impacts on employment rates among the unemployed (Lauringson et al., 2011) and other groups (Leetma et al., 2015). Recruiting students for
lifelong learning has been a problem in Estonia, however, and this is particularly true for older people (see above). The Work Ability Reform may change this, however, as the Unemployment Insurance Fund will be able to draw the attention of members of this group to these services. The Unemployment Insurance Fund works closely with vocational education providers at a local level as they decide what courses to offer, and the Unemployment Insurance Fund is provided with information on courses available.

**Other targeted measures**

61. As well as the professional work rehabilitation programmes that are available through the Unemployment Insurance Fund, social rehabilitation is available through the Social Insurance Board for those with more severe employability problems who are at a greater distance from the labour market. Those who are not yet ready for work rehabilitation are referred to the Social Insurance Board for a formal evaluation to assess which services they would benefit from, which lasts for two years. They include special care services for those with severe mental health problems, help with everyday life and social-skills development, and help with the initial steps towards moving into work including help putting together a CV and negotiating special arrangements with potential employers.

62. In the past, these services appear to have been poorly targeted, however. A pilot scheme to identify the needs of service users found that half did not require the service they were given. Since the introduction of the formal evaluation of needs, this proportion is estimated to have fallen to 25% (source: Social Insurance Board). To provide feedback on programme design and implementation, an evaluation of whether the goals of rehabilitation have been achieved at the end of a course of treatment was introduced in 2014.

63. Following the introduction of the Work Ability Reform, members of Group A will have access to both work rehabilitation services from the Unemployment Insurance Fund and social rehabilitation from the Social Insurance Board. Although these have different goals, and the target groups are somewhat different, the separation of what are essentially similar services provided by the same specialists has the potential to cause confusion for clients. So far, the Unemployment Insurance Fund has reported that disabled people prefer to access services from the Social Insurance Board. New systems of information sharing between the different bodies providing these services will become increasingly important as the Work Ability Reform is rolled out: there is a new pilot scheme to use the International Classification of Functioning to assess individuals’ abilities and share this information between providers of medical services, the Social Insurance Board and the Unemployment Insurance Fund.

64. The Social Insurance Board has recently taken over the provision of aids to those with reduced work capacity from county governments. This has improved the accessibility of aids considerably, with waiting times generally below 30 days (Riigikontroll, 2017). Responsibility for providing transport for those with disabilities remains with municipalities, however, which might prevent members of Group A from accessing the labour market if provision is patchy.

65. The extent to which specific health conditions limit peoples’ ability to work depends on the nature of the work itself. For instance, countries with a higher incidence of work involving tiring or painful positions nearly all the time among older workers tend to have lower employment rates among older age groups (Figure 22). Measures to improve working conditions, or to require adaptations to the workplace to accommodate those with disabilities, are crucial to increase employment among older workers with work limitations...
such as members of Group A. Employment rates among older Estonians are relatively high, but the high incidence of work involving tiring or painful positions among older workers in Estonia suggests significant scope for facilitating employment among people with some work limitations. This is also supported by data indicating that older workers in Estonia are more likely to say that their work makes their health worse than in other countries (38% of workers aged 50 and over reported this in Estonia, compared to 27% on average across the EU, source: Eurofound Working Conditions Survey 2015).

Figure 26. Employment rate and incidence of poor physical working conditions


66. As Group A includes many older working-age individuals with relatively low work experience, possible discrimination against older workers may be a factor discouraging some older individuals from seeking work. Discrimination as a factor hindering employment of older workers does not, however, appear more prevalent in Estonia than in several other European countries (Figure 23).
Policy priorities and recent or planned reforms

67. The Work Ability reform will transform the policy landscape for Group A and will affect both new claimants of disability benefits and those whose claims come up for reassessment (this will take five years as this was the maximum length of work disability assessments under the previous regime). As described in Table 5, the reform cuts across a number of domains and attempts to address the several key challenges in the current system.

68. The most important change is that claimants of the new Work Ability Allowance who have some remaining work capacity will be required to register as unemployed and become eligible for ALMPs. This is expected to increase the headline unemployment rate in Estonia by around 2 percentage points as existing claimants of incapacity pensions with some work capacity move from economic inactivity to unemployment initially (source: Table 3 of Rahandusministeerium, 2016). Specialist counsellors for those with disabilities will be available to help those claiming the Work Ability Allowance. These counsellors will have a caseload of around 100 clients, lower than that of regular case managers. Overall, the Unemployment Insurance Fund will see its number of staff increase from 549 in 2015 to 916 by 2018 to deal with this additional caseload and make decisions on eligibility for the Work Ability Allowance.

69. Work Ability Allowance claimants will be able to access the ALMPs which are available to claimants of unemployment benefits, but also some other programmes which are specifically designed for the needs of disabled people. These include temporary sheltered employment for up to a year, peer counselling, employment-related rehabilitation (with a maximum spend of €1,800 per year), working with a support person and a travel to work allowance for those who cannot use public transport. Those in need of extensive guidance at work can have a support worker working alongside them for up to 1,000 hours during the first year of employment, or 25% of the time they are at work during the first
year if this is less. However, the low wages offered to support workers has made recruitment difficult (Riigikontroll, 2017). Also, wage subsidies are available after six months for a duration of 12 months for those with disabilities, whereas those on unemployment benefits have to wait 12 months, and receive subsidies for only six months. So far, the most popular measures have been those that are also available to regular unemployed, in particular work practice and work-related training. However, as participation in ALMPs has so far been on a voluntary basis, it is likely that future participants will require more intensive support as other claimants of disability benefits who are further from the labour market become eligible.

70. The incapacity assessment for the Work Ability Allowance is also significantly different. The previous methodology focused solely on a claimant’s medical diagnosis and on their ability to do their previous job rather than examining their overall work capacity. The new assessment process relies on a questionnaire giving the claimant’s self-assessment of their capacity across seven different domains and reports from healthcare professionals provided in a standard format in order to assess an individual’s capacity to do any type of work. New claimants of disability benefits have been assessed using this methodology since July 2016, with reassessments of recipients of incapacity pensions whose incapacity assessment has come to an end beginning in January 2017. During this rollout period, many existing recipients of disability benefits sought reassessment early in order to avoid being assessed under the new regime even though those who are still assessed as having a work-related disability will not see their benefits reduced in the short run. The introduction of the new assessment system has not been entirely smooth, as the new computer system for processing payments was not ready in time, it proved difficult for the Unemployment Insurance Fund to recruit enough assessors and there have been a significant increase in the number of appeals against the decisions made. Around a third of these have been overturned once additional evidence has been presented. Moreover, problems with the health information system have led to delays in processing claims. Given that there are expected to be around 50,000 assessments per year, widespread appeals, delayed payments and incorrect initial decisions could prove costly to the government and cause widespread hardship. And although some of these administrative problems were resolved quickly, others remain (Riigikontroll, 2017).

71. Another important change introduced by the Work Ability reform is that instead of receiving a pension that is linked to previous contribution history, individuals will receive a flat-rate Work Ability Allowance that is linked to their ability level and does not depend on their previous earnings. The amount received under the previous system of incapacity pensions depended on an individual’s contribution record and the percentage of work capacity they were assessed to have. In 2017, the Work Ability Allowance has only two rates of €192 and €338 per month depending on whether an individual’s working ability is assessed to be partial or zero.

72. As a result of these measures, the amount paid in disability benefits is expected to fall overall. This arises for two reasons. First, as benefits will be withdrawn from those with earnings above the average wage, those already in paid work with high earnings capacity will receive less. Secondly, those with long work histories and high previous earnings, and those who do not receive any benefit at all following changes to the assessment process (estimated to be between 10% and 15% of current recipients of incapacity pensions) will see their benefit entitlements reduced or eliminated. Others will see high entitlements however, particularly those without a long record of social security contributions, and those assessed to have total incapacity for work. Although the introduction of a means test for incapacity benefits weakens financial work incentives, at least for those who have the
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capacity to earn more than the average wage, these changes are likely to be less important than the changes to non-financial aspects of work incentives such as the requirement to register as unemployed and take part in ALMPs discussed above.

73. The final component of the Work Ability reform is increased support given to employers. As in some other OECD countries, the Estonian Unemployment Insurance Fund has staff dedicated to relationships with employers (OECD, 2015b) and it is hosting regional conferences to explain the benefits available to firms taking on disabled workers, including the exemption from the minimum social tax, and offers individual training on demand, which has been reported to be very popular. In Estonia, firms are required to make reasonable adjustments to accommodate the needs of disabled employees, and 75-100% of these costs are in theory paid for by the Unemployment Insurance Fund, but in practice take up of this has been very low at only a few cases each year (Unemployment Insurance Fund statistics cited in Masso et al. 2016). If employees and employers are unaware that this support is available, employees who develop a work-limiting disability may be less likely to come forward and seek workplace adaptations that could help them manage their condition and might instead leave work, potentially entering Group A. Convincing employers to take up the support that is offered to employ those with reduced work capacity will be a big challenge for the Unemployment Insurance Fund: a survey suggested that only 31% of firms were willing to hire those with reduced work capacity whereas 44% declared it impossible to do so (Riigikontroll, 2017). However, if the Estonian labour market continues to tighten, labour shortages may encourage employers to take a closer look at those with health limitations and the support that is offered.

74. The policy therefore seems well tailored to overcoming the main employment barriers faced by Group A. Additional support for employers in employing those with disabilities and work rehabilitation schemes should help those with health limitations find work and sustain employment. Training schemes, which already appear to be the most popular programmes, have the potential to overcome some of the skills deficits faced by this group, and work trials and wage subsidies may encourage employers to take on those who have low work experience. So far, the evidence seems encouraging: of the 4,500 people assessed for the Work Ability Allowance in the second half of 2016, 2,600 are already in paid work, and of those who participated in ALMPs during the first half of 2016, 50% are in paid work, considerably above the 26% target. However, there are also reasons to be cautious: those who participated in programmes on a voluntary basis are likely to be the most highly motivated and work-ready, and so such swift reemployment rates should not be expected to be maintained as programmes are rolled out to the whole population of those with reduced work capacity. A full evaluation of the reform will ultimately be necessary to assess whether the reform is having the intended effects, and to ensure that potential negative outcomes, such as individuals dropping out of the system because of job search conditions, are not occurring. There are plans to carry out a mid-term evaluation of the reform in 2018 and a complete impact evaluation in 2021. Administrative registers are able to track the labour market status of individuals, placing them in one of twelve different categories, which will enable a detailed evaluation to take place.

75. However, the Work Ability Reform does not contain any measures to prevent the onset of health conditions that lead to individuals dropping out of the workforce in the first place. Indeed, 2016 saw the largest number of occupational accidents in Estonia for a decade (Riigikontroll, 2017). It has been suggested that the social security contributions paid by firms should vary depending on the (estimated or historic) risk of people developing health-related disabilities in the workplace, as is the case for some industries in...
Germany and Finland for example, to encourage firms to improve working conditions in order to prevent the onset of such conditions (Masso et al., 2015).
### Table 5. Recent policy reforms affecting Group A (“older labour market inactive individuals with health limitations, low skills and limited work experience”)

<table>
<thead>
<tr>
<th>Policy Work ability reform</th>
<th>Inputs</th>
<th>Activity</th>
<th>Outputs &amp; outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Targeted on those of working age with work-limiting disability (around 98,000 working-age adults in Estonia).</td>
<td>• Claimants assessed as having partial or complete inability to work.</td>
<td>• Anticipated that 10-15% of those currently assessed as having total inability to work will be reassessed as having partial work disability.</td>
</tr>
<tr>
<td></td>
<td>• Those who previously would have claimed incapacity pension claim new Work Ability Allowance, and existing claimants of incapacity pensions reassessed.</td>
<td>• Those with partial ability to work must register as unemployed unless they have caring responsibilities.</td>
<td>• Key measures for evaluation purposes will be number of people in employment 12 months after assessment. So far, 50% of those who have registered for services on a voluntary basis have moved into work, higher than the 26% target, however this is based on those who have volunteered to take part in ALMPs and so may be relatively work ready compared to others who will claim the benefit later.</td>
</tr>
<tr>
<td></td>
<td>• Budget of €199 million over period 2016-2020, including €169 million of funding from EU Social Fund.</td>
<td>• Offered specific labour market services including special aids and equipment, assistance in job interviews, support workers, apprenticeships, business start-up subsidy, training, rehabilitative work, sheltered work, counselling services, transport support for going to work, reimbursement of transportation costs of the support worker and wage subsidies. Around 2,100 people per month used these services in 2016 and this is expected to rise to around 5,600 people per month from 2017.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Firms employing those with work-limiting disabilities offered reimbursement of workplace adjustment and training costs and advice on accommodating disabled workers.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Country responses to OECD policy questionnaires.

### 4.2. Group B: “Working poor”

76. Almost all of this prime-age group (average age 43) report work activity during the reference period. Most of them do not face multiple overlapping barriers and about 30% do not face any of the employment obstacles considered here (see Figure 6). The most relevant three employment barriers are low skills, weak work incentives resulting from high non-labour incomes and health limitations. Although 72% report full-time work during most of the reference period, 82% declared zero or near-zero earnings. There can be multiple different reasons why survey data record very low earnings for individuals who seem to be working. While around a third of the group are self-employed, with earnings that may be expected to be volatile (or under-reported in household surveys such as the SILC, see Kukk and Staehr, 2013), the large share of employees reporting zero or near-zero earnings could also indicate informal employment, underreporting to authorities (“envelope wages”) or underpayment. In some cases, it could also simply be the result of measurement error. Members of Group B are most likely to live with a partner, and just over a third have dependent children. Nearly two thirds live with another adult who is in paid work and, as a result, most in Group B are not the main income earner in their household. Despite this,
51% of individuals in Group B are in the bottom income quintile of the income distribution and 52% are at risk of poverty.

### Box 3. Group B: “Working poor”

<table>
<thead>
<tr>
<th>Main employment barriers</th>
<th>Selected characteristics</th>
<th>% of the Target Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills (31%)</td>
<td>- 43 years old (average)</td>
<td></td>
</tr>
<tr>
<td>Health (22%)</td>
<td>- Majority male</td>
<td></td>
</tr>
<tr>
<td>Non-labour incomes (28%)</td>
<td>- Employed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 20 years of paid work (average)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 13.6 years of schooling (average)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Average equivalised disposable income: €5277 (2nd quintile)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Average number of simultaneous employment obstacles: 1</td>
<td></td>
</tr>
</tbody>
</table>

**Income support**

77. As members of Group B are for the most part in paid work and in many cases have a partner in paid work too, they are not eligible for earnings replacement benefits. A minority (21%) receive relatively small amounts of disability benefits, €1,500 per year on average (claimants of both incapacity pensions and disability allowance can work and claim benefits simultaneously). Those with children also receive family benefits averaging €1,514 per year.

78. A minority of Group B (15%) report “unstable” employment patterns, that is to say that they work for less than 45% of the reference period. Despite this, only 6% report receiving any unemployment benefits during this period. If unemployment benefits were more accessible in Estonia, members of Group B would have stronger incentives to report earnings to the authorities, and be in touch with the PES and have access to ALMPs, which might help them into more stable jobs in the formal economy.

79. Any informal work or envelope wages could be driven by high levels of employer taxes at low earnings levels. At 33.8%, the level of employer social security contributions in Estonia is higher than in most other countries (Figure 28), and unlike in some other countries there is no contribution-free amount per employee so this full rate applies to all earnings of even a low-paid employee.

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14. Of course, it is also possible that members of Group B do not have access to unemployment benefits because they are or were working informally: the causality could run in either direction.
### Figure 28. Employer taxes and social security contributions

<table>
<thead>
<tr>
<th>% of earnings, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum-wage earner</td>
</tr>
</tbody>
</table>

![Graph showing employer taxes and social security contributions.](image)

1. 10th percentile of full-time earnings distribution for countries without a statutory minimum wage. Source: Authors’ calculations using OECD tax-benefit models.

80. Low earnings levels may also be related to weak financial incentive to earn more. Figure 29 shows the marginal effective tax rate (that is, the proportion of additional earnings that are lost through either higher taxes or lower benefit entitlements) for someone considering moving from 33% to 67% of the average wage. However, it turns out that the incentives to increase earnings are relatively strong (or, equivalently, that the incentives for underreporting are relatively weak): low-earning individuals without entitlements to means-tested benefits get to keep around three-quarters of each additional euro earned, and members of Group B do therefore not appear to be stuck in a “poverty trap” or “low-wage trap”.
Figure 29. Marginal effective tax rate for moving from 33% to 67% of the average wage

in %, 2014, single person without children

Notes: For someone without entitlement to cash support for housing costs.
Source: Authors’ calculations using OECD tax-benefit models.

Policy priorities and recent or planned reforms

81. There have been efforts to lower the tax burden on low earners in recent years in Estonia. The tax free allowance has been increased from €144 per month in 2014 to €170 per month in 2016 and a new income tax rebate for low earners that reduces income tax liabilities by €228 per month for those whose annual income is below €7,818. A further very large increase in the tax free allowance to €500 per month has been announced for 2018, but the rebate for low earners will not be continued. Instead, the whole tax allowance will be gradually withdrawn from those with above-average incomes until it is fully withdrawn when incomes reach €2,100 per month. Income tax rates have also been reduced. These measures might encourage members of Group B to move into the formal sector of the economy if this is the reason why members of this group are reporting very low earnings to the survey.

82. Another measure to increase the incomes of low earners in Estonia has been an increase in the minimum wage, which has been raised by €40 per month in 2016 and will increase by a further €40 per month in 2017, summing to an overall increase of more than 20% over two years. However, it is debatable whether this is relevant to Group B: one third are self-employed and so will not be affected by this, and even for those who are employed its relevance is doubtful given that they report earnings of less than a third of the minimum wage prevailing during the reference period.

83. It is possible that the very low earnings reported by Group B are the result of working informally, or not reporting their entire earnings to the authorities and the SILC. Measures to reduce informal working have recently been introduced in Estonia. A national register of employees was introduced in 2014, which has been estimated to have increased formal employment by 9,000 and tax revenues by €5.1 million in its first few months. However, although this makes informal employment more difficult, it does little to combat ‘envelope wages’. Inspections by labour inspectors are used in conjunction with the database to identify unregistered employees, but spot inspections cannot be used to verify...
earnings and hours worked. Other measures have sought to restrict firms’ access to undeclared revenues which can be used to pay ‘envelope wages’: a recent reform to VAT requires both parties to report all transactions exceeding €1,000 per month. Also, the government has started to publish the amount of social tax paid by each firm so firms can report competitors who appear to be underpaying given the scale of their operations. However, as the social tax is high, and social security contributions do not give rise to significant benefit entitlements at the margin—unemployment insurance benefits in Estonia are not especially generous (recall Figure 11), and the link between retirement pensions and previous earnings is relatively weak—the incentive for employers and employees to collude to under-report wages is strong.

84. The most common employment barrier faced by Group B is a lack of skills (though even this barrier is only faced by 31% of the group). New training programmes are planned for those in paid work who have low skills to lower the risk of unemployment and to address skills mismatches which may be relevant for this group. These measures (see Table 6) will be introduced from May 2017 and include training vouchers for those who either earn less than the 170% of the minimum wage and are either aged 55 or over, have no professional qualification, have insufficient knowledge of the Estonian language, or have a disability, and support for formal studies for those who do not have a professional qualification and have not been in education for at least five years, or who obtained their professional qualification at least 15 years ago, or who need retraining because of a health condition. Similar training vouchers for the unemployed have been shown to have significant positive effects on their subsequent employment rates (Anspal et al., 2012).

85. These measures will be introduced from May 2017, and according to estimates from the Unemployment Insurance Fund, 3,500 people are expected to participate in 2017, 14,000 in 2018 and rising to 17,000 by 2020. Spending will be substantial, representing around 10% of the total budget for ALMPs once roll-out is complete (see Figure 15). In order to fill these places, significant additional effort will have to be made by the Unemployment Insurance Fund to engage with those already in employment. So far, efforts to engage with those in work have, however, proved difficult. Take-up of careers advice from the Unemployment Insurance Fund (which will be a prerequisite for participating in these schemes) has been relatively low since it started to be made available in 2015, though on an upward trend: 10,432 employed and inactive people (figures for just those in employment are not available) took part in counselling in 2016, though this represented an increase from 7,542 the previous year (source: Unemployment Insurance Fund statistics). Thus it will be necessary to engage more employees with the counselling services offered by the Unemployment Insurance Fund even if a high proportion of those who take advantage of career counselling go on to take up these training opportunities. Such programmes to engage those already in work do not have a strong record in other OECD countries (OECD, 2015b): it has proved difficult to maintain contact with those who are in work in cases (as will be the case in Estonia) where clients are not also receiving an in-work benefit.

4.3. Group C: “Unskilled mothers with care responsibilities and limited work experience”

86. Group C consists of relatively young (30 years on average) women from rural areas with no recent work experience. They have two children on average, the youngest of whom is three years old. At least one child does not receive full-time (30 hours per week or more) of non-parental childcare. Since there is no one else in the household to provide it, unmet
childcare needs represent an important employment barrier for members of Group C. The majority of group members have some past work experience, although this tends to be low relative to their potential experience at less than 60% of the time since they left full-time education and in low-skilled jobs. Individuals in Group C are likely to face multiple overlapping barriers to employment, with the most common combination being a lack of work experience, care responsibilities and low skills. Mothers in Group C are most likely to live with their children and a partner, and sometimes with more than one other adult. 79% live with an adult who is in paid work, and for around half (46%) income from other family members is “high” (more than 1.6 times median income among the population as a whole). For them, family incomes are adequate even with only one parent in paid employment, reducing the immediate economic need to find additional paid work. However, for other members of Group C this income is much lower: around a third are at risk of poverty.

87. Low skills and low work experience are likely to go hand-in-hand for members of Group C. Analysis of data from the OECD Survey of Adult Skills (PIAAC) by researchers in Estonia (Ministry of Education and Research, 2015) found that younger women’s skills were roughly equal to those of men, but that once women reached child-bearing age, their skills were significantly worse than those of men. Moreover, having children was associated with lower scores on the PIAAC tests for women, but not for men. This suggests that time taken out of the labour market around the time of childbirth causes long-lasting skills depreciation.
Box 4. Group C: “Unskilled mothers with care responsibilities and limited work experience”

<table>
<thead>
<tr>
<th>Main employment barriers</th>
<th>Most frequent characteristics</th>
<th>% of the Target Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care</td>
<td>- 30 years old (average)</td>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
<tr>
<td>Skills</td>
<td>- Women</td>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
<tr>
<td>Low work experience</td>
<td>- Inactive/Housework</td>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
<tr>
<td></td>
<td>- No or low professional skills</td>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
<tr>
<td></td>
<td>- 3 years of paid work experience (average)</td>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
<tr>
<td></td>
<td>- Single earner couple with 2 young children (average)</td>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
<tr>
<td></td>
<td>- Average equivalised disposable income: €6500 (3rd quintile)</td>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
<tr>
<td></td>
<td>- Average number of simultaneous employment obstacles: 3</td>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
</tbody>
</table>

**Income support**

88. Group C lives in households with different income levels depending on the earnings levels of other household members. However, most of Group C live in households in the lower half of the income distribution. As most members of Group C have a partner in paid work, few are entitled to means-tested earnings replacement benefits, and as few are unemployed, they are not entitled to unemployment insurance either. However, a quarter of the group live in households that receive disability benefits with the average amount being €1,076 per year, a relatively low amount, suggesting that this represents disabled adult allowances rather than incapacity pensions. (Note that only 13% of Group C report some or severe health limitations that prevent them undertaking everyday activities, so in some cases these benefits are received by someone else in the household). As almost all of Group C have children, they are entitled to family benefits averaging €2,809 per year.15

89. Members of Group C are likely to have been entitled to parental leave benefits in the recent past. These are extremely generous in Estonia, replacing 100% of previous earnings for 435 days. It is possible to work during this period, but the benefit amount is reduced if earnings exceed the minimum benefit amount (31% of the average wage in 2014). In principle, this should make part time work attractive for members of Group C, but part time working is uncommon in Estonia. As discussed in Section 4.1, this arises both because of the minimum social tax for employers, which makes it expensive to hire workers part time – though this does not apply to workers with children under 3 years old – but also for cultural reasons.

90. Generous maternity leave provisions give women a strong incentive to gain work experience before starting a family. However, Estonia’s parental leave benefit is not conditional on prior work experience: those who are not in paid work when they become pregnant: those who did not work in the year prior to the birth receive the minimum level of parental leave benefits until the child is 18 months old, which weakens this incentive. A stronger link between parental leave benefit entitlement and previous work history would strengthen the incentive for women to gain work experience before starting a family, which might strengthen their subsequent labour market attachment.

15 For those with very young children, this will also include parental leave benefits.
Public employment service and active labour market programmes

91. As most members of Group C do not receive earnings replacement benefits, there is no obligation for them to register with the PES, though they may do so if they wish. There are special services available for parents with young children who register with the PES, including help for the costs of private day care for those whose children do not have a kindergarten place. Those who do not register with the PES have no access to job mediation services or ALMPs, though can still receive careers advice and search for job vacancies published at the PES.

92. Most members of Group C have low skills, so provision of education and training opportunities will be crucial to increasing employment among this group. The proportion economically inactive mothers with young children taking part in education and training in Estonia in 2014 is high compared to similar groups in other European countries (Figure 30), but still low at around 10%. As described in section 4.1, basic education courses, formal vocational education and vocational training courses are available to all adults, and these do not require referral from the PES.

Figure 30. Participation in education and training

Economically inactive mothers with children aged under 5, 2014, in %

1. 2013 for Germany.
2. Countries with fewer than 100 observations not included.
3. Only those who report main activity as looking after family or home.
Source: Authors' calculations using EU-LFS.

Other targeted measures

93. The high incidence of childcare barriers in Group C highlights the limited availability of non-parental childcare in Estonia: in 2014, only 21% of children aged under 3 were in formal childcare (see Figure 31 below) and it was estimated that there was an unmet need of 2,335 childcare places for children aged 18 months to 3 years at the start of 2015 (European Commission, 2016), approximately 10% of children in this age group.

94. Where there is a shortage of places, parents put their children on a waiting list until a place becomes available. Parents tend to put their child’s name on the waiting list as soon
as they are born to ensure that they will have a place when they are 18 months old. There is no priority given to families who require a place because both parents are in paid work, and parents who do not work are not obliged to register with the PES or engage in work search activities to access these services.

95. Shortages of places were concentrated in the cities of Tallinn and Tartu and in smaller rural municipalities. The delivery of public services in these small, rural municipalities, sometimes with populations of less than a thousand, can be problematic. A restructure of local government to reduce the number of local authorities from around 230 to around 70 aims to improve the delivery of services in rural areas.

96. Kindergartens tend to be open from 7am to 7pm, providing considerable flexibility for parents, but this still may be insufficient for those who do shift work (12 hour shifts are common in Estonia).

Figure 31. Childcare coverage

Percentage of children aged 0-2, 2014

![Childcare coverage graph]

Source: Eurostat.

97. Recent changes have sought to address this lack of provision. Local governments created 604 new childcare places in 2015 with financial support from the European Social Fund. More recent data from 2015–16 shows that 75% of two year-olds were in pre-school education in Estonia, and that the overall proportion of those aged 0-2 in pre-school education had increased to 34% compared to the 20% for 2014 shown in Figure 27 (source: Ministry of Social Affairs of Estonia). A further call for 600 additional childcare places will be launched in 2017 with funding from the same source. Furthermore, up to 2,300 more places will be created in larger cities and suburbs with funding from the European Regional Fund (European Commission, 2016).

98. Even if childcare is available, it needs to be affordable for families if care responsibilities are not to be a barrier to parental employment. However, the cost of publicly provided childcare does not appear to be a barrier to employment in Estonia as municipal kindergartens can only charge 20% of the monthly minimum wage (€78 per month in 2015). Figure 32 shows the typical cost of childcare in different OECD countries.
for a family with two children aged 2 and 3 where the father earns the median full-time wage and the mother earns at the 25th percentile of the full-time earnings distribution (an approximation of the “typical” potential situation of members of Group C if they entered paid work), net of subsidies and tax credits. In Estonia, childcare fees paid by parents in kindergartens run by local authorities are very low (4% of gross earnings for this family type), and these are also partly tax deductible which reduces the net cost further. Treating childcare costs as cost of working for this “typical” member of Group C does not affect the assessment that their financial work incentives are strong: the proportion of earnings that are lost to either higher taxes, lower benefits or childcare costs is only 32% for an individual in this approximated “typical” situation for the group (compared to 23% if childcare costs are ignored, Figure 33).

99. These figures assume that families register for a place at a municipality-run kindergarten. However, some parents may prefer to use privately-run day care centres if they require longer hours or childcare outside of normal working hours, which are significantly more expensive. The Unemployment Insurance Fund is able to give a childcare allowance of up to €352 per month to those returning to work for the first three months, and then local authorities make a contribution towards the cost (in Tallinn, the municipal contribution is €150 per month). Since costs for parents are so much higher, relatively few children attend privately-run day care centres: only 8% of children aged 0-2 attended in 2015–16 (source: Ministry of Social Affairs of Estonia).

100. Care responsibilities represent a greater barrier to employment when working arrangements are not flexible. Although Estonian workers are more likely to be able to work flexible hours and exchange additional hours work for additional days of holiday, working from home is less common among women in Estonia than is typical for the EU as a whole (Figure 34). In an effort to improve family-friendly practices among firms, the government is introducing a ‘Family Friendly Employer’ label, which firms can obtain after an assessment by professional consultants.

16. Childcare fees with the exception of food costs are tax deductible in Estonia.
Figure 32. Childcare costs are low in Estonia

% of gross earnings for couple with two children aged 2 and 3, 2015

<table>
<thead>
<tr>
<th>Childcare fee</th>
<th>Childcare benefits</th>
<th>Other benefits</th>
<th>Tax reduction</th>
<th>Net cost</th>
</tr>
</thead>
</table>

1. Assumes father earns at the median of the full-time earnings distribution and mother at the 25th percentile. Source: Authors’ calculations using OECD tax-benefit models.

Figure 33. Percentage of earnings lost to higher taxes, lower benefit entitlements and childcare costs

Mother in couple with two children aged 2 and 3, 2015

1. Assumes father earns at the median of the full time earnings distribution and mother at the 25th percentile. Source: Authors’ calculations using OECD tax-benefit models.
Figure 34. Family friendly employment practices in Estonia

2013

<table>
<thead>
<tr>
<th>% of employees who have the possibility to accumulate working hours for annual leaves and to vary the daily work schedule</th>
<th>% of employee's working hours set entirely by the company with no possibility for change</th>
<th>% of female employees who have never worked from home in the past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST</td>
<td>EU28</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>64</td>
<td>75</td>
</tr>
<tr>
<td>49</td>
<td>68</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: OECD Family Database.
Policy priorities and recent or planned reforms

101. New further education programmes have been introduced in 2016 with parents of young children as one of the priority groups (Table 7). These are run by upper secondary schools, vocational schools and non-formal adult education providers and the content of the courses will include social skills, entrepreneurial skills, mother tongue and foreign language skills and digital skills. 20,000 places will be provided and the budget will be €8.3 million over 4 years. Alongside this, there will be support with childcare and transport costs to enable parents to attend the courses. Since low skills are one of most common employment barriers faced by members of Group C, these programmes would appear to be highly relevant, especially as eligibility is not limited to those claiming a particular benefit or those who are registered as unemployed. Members of Group C will also be entitled to the grants for supporting formal studies discussed in Section 4.2. However, again, it may prove difficult for the Unemployment Insurance Fund to engage with members of this group as there is otherwise no need for this group to engage with the PES.

102. There are also plans to reform of parental leave. Parental leave benefits are very generous in Estonia, lasting up to a year if taken on a full-time basis. Although in principle this can be taken by either the mother or the father, in practice only 7.5% of beneficiaries are male: there is a very large gender employment gap among those with children aged 0-3 in Estonia (European Commission, 2016). Increasing the length of parental leave would therefore likely reduce labour market attachment among mothers, and potentially have undesirable longer term impacts: although parental leave of up to a year has been shown to increase mothers’ labour market attachment, further extensions are likely to reduce wages among mothers in the longer term (Rossin-Slater, 2017). Therefore, it has been decided to introduce an additional month of parental leave that will be available only to the father on a non-transferable basis. More flexibility to allow parental leave to be used over a longer period has also been proposed. It is hoped that these changes will lead to a more even split of caring responsibilities between men and women, potentially reducing the care responsibilities that are placed on members of Group C and increasing their work experience. Since limited work experience and care responsibilities are the two most common employment barriers faced by Group C, this proposal seems well targeted at assisting this group overcome the employment barriers they face.
5. Conclusions

103. This paper has used a novel method for identifying, analysing and visualising the most common employment barrier profiles characterising the working-age population facing potential labour-market difficulties. The resulting information was used to inform a people-centred policy inventory and a discussion of priorities across policy domains and institutions that are involved in providing employment support.

104. The underlying premise is that out-of-work individuals, either unemployed or labour-market inactive, and workers with weak labour market attachment face a number of possible employment obstacles, and each of them may call for different policy responses. The success of activation and employment-support policies, and of social protection measures more generally, is expected to hinge on effective strategies to target and tailor policy interventions to these barriers and to individual circumstances.

105. The results reported here refer to 2013, a period following a deep economic crisis and several years of labour-market recovery. Results show that 18% of working-age individuals in Estonia were persistently out of work for at least 12 months, and a further 13% had low work intensity working less than half of the year, or reporting limited working hours or very low earnings. The potential employment barriers that were most common among these 31% of the working-age population were low skill levels, health limitations and limited work experience. Although financial disincentives, care responsibilities and scarce job opportunities were less widespread overall, they represented important barriers for some groups. The empirical approach can easily be repeated with data for later periods. However, while the size of groups is likely to change as the labour market recovers and cyclical unemployment is absorbed, the more structural barriers are likely to persist while underlying policy and related constraints remain in place.

106. Results point to ten clusters of individuals with low or weak labour market attachment, and distinct combinations of employment barriers. One finding is that shorthand proxy groupings that are frequently used in the policy debate in fact contain several different sub-groups, each of whom face significantly different sets of employment challenges. For example, the clustering reveals two different groups of economically inactive mothers with young children with very different levels of education, skills and work experience and different levels of household income. Similarly, the analysis reveals three groups of individuals with health difficulties, who differ in terms of their age, work experience and benefit entitlements. The statistical clustering also identified two groups of youth with labour market difficulties who differ in terms of their employment record and the job opportunities likely to be available to them.

107. We have examined three of these groups in more detail. The first group are ‘Older labour-market inactive adults with health limitations, low skills and limited work experience’, most of whom were claiming incapacity pensions at the time they were interviewed. Claimants of incapacity pensions have not been subject to activation in the
past, even those with some partial work capacity, and the scheme appears to have been used as a substitute for unemployment benefits for older workers: benefit recipient rates are higher in regions with high unemployment, and flows on to the benefit increased during the economic crisis. This will however all change as the Work Ability Reform is rolled out over the coming years. The most important change this will bring about is to activate those claiming disability benefits. Claimants of the new Work Ability Allowance who have some partial work capacity will be obliged to register with the Unemployment Insurance Fund and will have access to a range of ALMPs, including some designed specifically for people with reduced work capacity. The reform will also ensure that disability benefits are better targeted on those with reduced capacity for work, as there is a new disability assessment procedure that focuses more on the capacity to do any job rather than on diagnosis of certain conditions and the capacity to do the previous job. Despite administrative problems with the new scheme, not all of which have been fully resolved, initial results have been impressive, with half of those who participated in ALMPs in the first half of 2016 having returned to paid work by the end of the year. Big challenges remain, however: early participants in ALMPs did so on a voluntary basis and are likely to be closer to the labour market than those who will participate in future, and employers seem reluctant to employ those with health limitations despite available assistance with the costs of making adaptations.

108. The second group, labelled “Working poor” are individuals who report very low levels of earnings despite working full time. Informal employment is more common in Estonia than in other EU countries, as are so-called ‘envelope wages’, that is to say undeclared payments to registered workers. Recent reforms to combat informal employment have included a national register of employees that can be used by labour inspectors, requiring both parties to report transactions exceeding €1,000 per month for VAT purposes to restrict access to undeclared revenues that can be used to pay undeclared wages, and publishing each firm’s social tax payments so that firms can report any competitors who appear to be under-reporting. But as employer social contributions are high in Estonia and the benefits received by those covered by social insurance are low – unemployment insurance benefits are less generous than in other countries, and the link between retirement pensions and previous earnings is not as strong as in many other countries – the incentive for employers and employees to collude to under-report wages to the authorities is strong.

109. Members of the “working poor” group frequently have low skills. The Unemployment Insurance Fund intends to offer new training programmes to those already in work who have low education or skills from May 2017 to reduce their future risk of unemployment and address skills mismatches. However, it has so far proved difficult for the Unemployment Insurance Fund to engage with those in work, and similar programmes to offer services to those in work have proved ineffective in other countries (OECD, 2015b) as it is difficult for the PES to maintain contact with those in work unless clients are also receiving an in-work benefit.

110. The final group examined in this report are ‘unskilled mothers with care responsibilities and limited work experience’. Although municipalities should provide a full-time kindergarten place for all children from the age of 18 months and monthly fees are limited to 20% of the monthly minimum wage, until recently there was a shortage of places, particularly in Tallinn and Tartu. Following investment in more kindergarten places with funding from the European Social and Regional Development Funds, these have largely been resolved. Plans to increase the flexibility of parental leave and to give an additional month of paid parental leave for fathers only should also help this group
overcome care barriers that prevent them from working and increase their labour market attachment.

111. Like the ‘working poor’, this group also frequently have low skills, and there are similar plans to increase access to education and training courses for parents with young children. New further education programmes run by upper secondary schools, vocational schools and non-formal adult education providers have been introduced in 2016 with parents of young children as one of the priority groups and there is support with childcare and transport costs to enable parents to attend the courses. Furthermore, a new study grant has been introduced to allow those who have completed parental leave and have low skills to obtain a professional qualification related to a shortage occupation. However, again, the challenge will be to reach out and engage with members of this group to ensure that they are made aware of the opportunities that are on offer.
Annex 1: Latent class results for Estonia

112. Using 2014 SILC data, the segmentation algorithm outlined in the companion statistical paper for Estonia (Browne and Pacifico, 2016) leads to a model with 10 groups. Table A1.1 shows the estimated parameters, i.e. the share of individuals facing the employment barriers in each latent group and the related group size in the target population (first row). Groups are ordered by size; colour shadings are used to highlight barriers with higher (dark blue) and lower (light blue) frequencies in each group.

<table>
<thead>
<tr>
<th>Table A1.1.</th>
<th>Latent class estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of individuals with selected characteristics, by group</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group Size (Target population=100)</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
<th>Group 6</th>
<th>Group 7</th>
<th>Group 8</th>
<th>Group 9</th>
<th>Group 10</th>
<th>Target Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Low&quot; skills</td>
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<td>8</td>
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<td>35</td>
<td>63</td>
<td>84</td>
<td>96</td>
<td>46</td>
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<tr>
<td>Health limitations</td>
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<td>11</td>
<td>32</td>
<td>6</td>
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<td>&quot;High&quot; non-labour income</td>
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</table>

Note: Group sizes refer to the target population as defined in the text. Colour shadings identify categories with high (dark blue) and lower (light blue) frequencies. Complementary categories (e.g. ‘high’ skills) are omitted.

Source: Authors’ calculations based on EU-SILC 2014
### Table A1.2. Characterisation of the latent groups

Percentage of individuals with selected characteristics, by group

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
<th>Group 6</th>
<th>Group 7</th>
<th>Group 8</th>
<th>Group 9</th>
<th>Group 10</th>
<th>Target Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of individuals (%)</td>
<td>20</td>
<td>19</td>
<td>15</td>
<td>13</td>
<td>10</td>
<td>7</td>
<td>5</td>
<td>9</td>
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<td>Unstable jobs</td>
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<td>43</td>
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<td>Women*</td>
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<td>Age (average)</td>
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<td>43</td>
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<td>Until to work/disable</td>
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<td>54</td>
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<td>2</td>
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<td>9</td>
<td>35</td>
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<td>86</td>
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<td>Level of education (ISCED)</td>
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<td>11.9</td>
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FACES OF JOBLESSNESS IN ESTONIA

For Official Use
Table A1.2. Characterisation of the latent groups (cont.)

Percentage of individuals with selected characteristics, by group

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
<th>Group 6</th>
<th>Group 7</th>
<th>Group 8</th>
<th>Group 9</th>
<th>Group 10</th>
<th>Target Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of individuals (%)</td>
<td>20</td>
<td>19</td>
<td>15</td>
<td>13</td>
<td>10</td>
<td>7</td>
<td>5</td>
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<td>100</td>
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<td>Number of individuals (frequency)</td>
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<td>11573</td>
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<td>No work-related skills</td>
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<td>7</td>
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<td>35</td>
<td>37</td>
<td>19</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>Clerk and sales (Mid low skills)</td>
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<td>22</td>
<td>27</td>
<td>26</td>
<td>17</td>
<td>21</td>
<td>20</td>
<td>22</td>
<td>6</td>
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</tr>
<tr>
<td>Technicians et al. (Mid skills)</td>
<td>8</td>
<td>6</td>
<td>15</td>
<td>16</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>6</td>
<td>2</td>
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<tr>
<td>Professionals (Mid high skills)</td>
<td>9</td>
<td>5</td>
<td>8</td>
<td>34</td>
<td>7</td>
<td>10</td>
<td>17</td>
<td>6</td>
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</tr>
<tr>
<td>Managers (High skills)</td>
<td>4</td>
<td>2</td>
<td>12</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Years of paid work experience</td>
<td>16</td>
<td>20</td>
<td>20</td>
<td>10</td>
<td>7</td>
<td>6</td>
<td>23</td>
<td>5</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Severe health limitations</td>
<td>17</td>
<td>32</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>63</td>
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<tr>
<td>Migrant</td>
<td>93</td>
<td>92</td>
<td>10</td>
<td>12</td>
<td>13</td>
<td>79</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Equivalent disposable income (€/year - average)</td>
<td>5,376</td>
<td>4,616</td>
<td>5,776</td>
<td>10,794</td>
<td>4,277</td>
<td>5,519</td>
<td>6,124</td>
<td>6,549</td>
<td>4,973</td>
<td>5,803</td>
</tr>
</tbody>
</table>

Note: Colour shadings identify categories with high (darker) frequencies. The average number of simultaneous barriers per individual is computed for the core indicators in table A1.1 with the exception of recent work experience. Income quintiles refer to the entire population. Poverty risks and material deprivation are calculated with the Eurostat methodology.

* The variable enters as an additional indicator in the latent class model. See companion Profile Analysis Note for Estonia for details.

† Average across observations with strictly positive values. Averages based on less than 30 observations are omitted.

Source: Authors’ calculations based on EU-SILC 2014.
### Table A1.3. Characterisation of the latent groups

#### Coefficient of variations, by group

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
<th>Group 6</th>
<th>Group 7</th>
<th>Group 8</th>
<th>Group 9</th>
<th>Group 10</th>
<th>Target Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>5</td>
<td>16</td>
<td>32</td>
<td>21</td>
<td>20</td>
<td>33</td>
<td>20</td>
<td>27</td>
<td>22</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td><strong>Length of unemployment spell</strong></td>
<td>38</td>
<td>107</td>
<td>28</td>
<td>53</td>
<td>189</td>
<td></td>
<td></td>
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<tr>
<td><strong>Years of education</strong></td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>19</td>
<td>19</td>
<td>20</td>
<td>18</td>
<td>20</td>
<td>36</td>
<td>36</td>
<td>22</td>
</tr>
<tr>
<td><strong>Years of paid work experience</strong></td>
<td>16</td>
<td>51</td>
<td>66</td>
<td>69</td>
<td>56</td>
<td>122</td>
<td>38</td>
<td>87</td>
<td>111</td>
<td>87</td>
<td>66</td>
</tr>
<tr>
<td><strong>Equivalent disposable income</strong></td>
<td>74</td>
<td>58</td>
<td>66</td>
<td>86</td>
<td>62</td>
<td>64</td>
<td>76</td>
<td>53</td>
<td>42</td>
<td>42</td>
<td>64</td>
</tr>
<tr>
<td><strong>Sickness and disability</strong></td>
<td>60</td>
<td>37</td>
<td>72</td>
<td>111</td>
<td>67</td>
<td>128</td>
<td></td>
<td>67</td>
<td>122</td>
<td>23</td>
<td>60</td>
</tr>
<tr>
<td><strong>Unemployment benefit</strong></td>
<td>102</td>
<td></td>
<td></td>
<td>121</td>
<td>122</td>
<td>93</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>127</td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Assistance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Housing Benefits</strong></td>
<td>..</td>
<td>128</td>
<td>..</td>
<td>74</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td></td>
</tr>
<tr>
<td><strong>Family-related benefits</strong></td>
<td>136</td>
<td>150</td>
<td>202</td>
<td>92</td>
<td>141</td>
<td>157</td>
<td>201</td>
<td>95</td>
<td>147</td>
<td>111</td>
<td>144</td>
</tr>
<tr>
<td><strong>Old-age Benefits</strong></td>
<td>37</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of children (12 years or less)</strong></td>
<td>45</td>
<td>52</td>
<td>50</td>
<td>44</td>
<td>44</td>
<td>40</td>
<td>37</td>
<td>47</td>
<td>29</td>
<td>19</td>
<td>46</td>
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<tr>
<td><strong>Age of the youngest child</strong></td>
<td>71</td>
<td>66</td>
<td>79</td>
<td>126</td>
<td>66</td>
<td>66</td>
<td>63</td>
<td>115</td>
<td>102</td>
<td>110</td>
<td>98</td>
</tr>
<tr>
<td><strong>Number of simultaneous barriers</strong></td>
<td>43</td>
<td>37</td>
<td>44</td>
<td>36</td>
<td>39</td>
<td>44</td>
<td>48</td>
<td>27</td>
<td>29</td>
<td>19</td>
<td>44</td>
</tr>
</tbody>
</table>

**Note:** Indices calculated for the “continuous” variables shown in Table A1.2. See notes of Table A1.2 for more information on the sub-samples these indices refer to. Indices based on less than 30 observations are omitted.

**Source:** Authors’ calculations based on EU-SILC 2014.
Annex 2: Description of employment barriers

113. The companion statistical paper for Estonia (Browne and Pacifico, 2016) examines a series of employment barriers that may be faced by those with no or weak labour market attachment. Following Immervoll and Scarpetta (2012), these are categorised into three domains, namely:

- **Insufficient work-related capabilities**, e.g. a lack of skills, work experience, care responsibilities and health-related limitations;
- **Lack of financial work incentive to look for ‘good’ job**, e.g., because of low potential pay, relatively generous out-of-work benefits, or high standards independently of own work effort;
- **Scarce job opportunities**, e.g., a shortage of vacancies in the relevant labour-market segment, friction in the labour market due to information asymmetries, or discrimination in the workplace.

114. These employment barriers cannot all be measured directly. To operationalise the concepts, the we implement a set of workable indicators under each of the three main categories. Fernandez et al. (2016) provides a fuller discussion of the indicators and their rationale, including descriptive statistics for selected countries. The indicators used are as follows:

- **Capability, item 1. “Low” skills**: if an individual has low professional skills (their most recent job was in the lowest two categories of the ISCO-08 classification system). Those who demonstrate high skills by having a tertiary degree are assumed not to face this employment barrier even if their most recent job was low-skilled. If an individual has no work experience at all, they are also included in the “low skills” group.\(^{17}\)
- **Capability, item 2. Two measures of work experience:**
  - **No recent work experience**: if an individual did no paid work during the reference period (i.e. they were without employment for at least 12 months).
  - **“Low” relative total work experience**: the indicator takes one of three values: 1 for those who have no past work experience at all, 2 for those who have some work experience but have worked less than 60% of the time since they left full-time education, and 3 otherwise (i.e., if their total work experience is not “low”).
- **Capability, item 3. Health limitations**: If an individual reports some or severe long-standing physical or mental limitations in daily activities.

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\(^{17}\) This indicator is different from that in Fernandez et al. (2016), which classifies individuals who have achieved less than upper secondary education as facing an employment barrier. The reason is the peculiar combination of mid-high education levels and low work-related skills common among the older cohorts of the Estonian labour force.
• **Capability, item 4. Care responsibilities:** if an individual has a family member who requires care\(^{18}\) and is either the only potential care giver in the household, or they are the only person in the household who is economically inactive or working part-time because of care responsibilities.

• **Incentives, item 1. Capability, item 4. “High” non-labour income:** if the household’s income excluding that relating to the work efforts of the individual in question,\(^{19}\) adjusted for household size, is more than 1.6 times the median value among the reference population.

• **Incentives, item 2. “High” earnings replacement benefits:** if earnings-replacement benefits are more than 60% of an individual’s estimated potential earnings in work.\(^{20}\)

• **Opportunity, item 1. Scarce job opportunities:** unemployed individuals characterised by active job-search and willingness to take up employment during most of the income reference period (at least 7 months) until the moment of the SILC interview (inclusive).\(^{21}\)

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18. Family members assumed to require care are children under the age of 12 receiving less than 30 hours of non-parental childcare a week and adults reporting severe limitations in daily activities due to their health and being economically inactive throughout the reference period (and in the case of those of working age, that permanent disability is the reason for their inactivity).

19. This includes both earnings, individual-level earnings replacement benefits and the individual’s share of household-level earnings replacement benefits. See Fernandez et al. (2016) for details. Starting from 2014, EU-SILC differentiates between means-tested and non means-tested household-level benefits. This indicator considers only means-tested household-level earnings replacement benefits.

20. Potential earnings are estimated in SILC with a regression model corrected for sample selection. See Fernandez et al. (2016) for details.

21. Fernandez et al. (2016) adopts an ‘inferential’ approach for identifying individuals with low job opportunities. They estimate the risk of facing potential demand-side constraints, i.e. being either long-term unemployed or working part-time involuntarily, in different labour-market segments described by regions, age, gender and education. Based on the estimates, individuals with a risk higher than 1.6 times the median are considered facing “scarce job opportunities”. This inferential approach works better in countries with a high number of individuals facing demand-side constraints relative to the working age population.
6. References


