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PORTRAITS OF LABOR MARKET EXCLUSION 2.0

Country Policy Paper (CPP) for Greece

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1. Introduction

Successful labor market inclusion requires a better understanding of who the labor market vulnerable are. People who are out of work are not all the same: they can be middle-aged individuals and early retirees, as well as young adults who are neither working nor receiving an education. At the same time, there may be other types of vulnerability in the labor market: some people take part in temporary or unstable employment, work a reduced number of hours, or earn very low incomes despite being engaged in full time work. Considering the priorities of the inclusive growth pillar of the Europe 2020 Strategy, and potential negative impacts of labor market vulnerability on long-term growth, it is worth examining who the labor market vulnerable in Europe are and why they are out of work or are precariously employed. While some statistics on broad groups (youth) exist, deeper analysis, especially on the diverse barriers faced by the labor market vulnerable in conjunction with other characteristics, is needed and would constitute an important step forward towards better labor market inclusion.

In this context, Portraits of Labor Market Exclusion-2.0 — a joint study between the European Commission (EC), the World Bank, and the Organisation for Economic Cooperation and Development (OECD) — aims to inform employment support, activation, and social inclusion policymaking, by deepening our understanding of labor-market barriers. Covering 12 countries, the study builds on the previous joint EC and World Bank study to map the diversity of profiles for the out of work in six countries (Sundaram et al., 2014) and other analyses that characterize people with labor market difficulties (European Commission, 2012; Ferré et al., 2013; Immervoll, 2013). This study expands the previous analysis by looking at a broader group of labor market vulnerable beyond the out of work and includes those in unstable employment, those with restricted hours, and those with near-zero incomes (i.e. marginally employed individuals). It also refines the analytical methodology by applying an employment barriers framework to facilitate policy making and country-specific application, and to provide a reference point for future methodological extensions.

Utilizing an advanced statistical method (i.e. latent class analysis), the study separates individuals who are out of work or marginally employed into distinct groups with respect to types of employment barriers faced. This approach facilitates discussions on the strengths and limitations of existing policy interventions for concrete groups of beneficiaries, and helps inform policy decisions on whether and how to channel additional efforts toward specific groups.

Addressing the same barrier may require using a different set of policies to address the unique characteristics of each identified group. For example, while many individuals face an employment...
barrier of having no recent work experience, inactive mothers facing this barrier may require a different approach than the approach used for young unemployed men facing this same barrier. Thus, the study further delves into the results of the latent class analysis (LCA) for the priority groups that are identified in close collaboration with the corresponding country counterparts. Consequently, the study presents a richer and deeper understanding of the barriers, beyond what could be glimpsed through traditional statistics. It also provides an assessment of the adequacy of the policies and programs that are available to respond to the needs of the priority groups.

The analysis focuses primarily on the supply-side constraints and corresponding policies, which, while important, can only scratch the surface on addressing employment issues, especially in the still challenging Greek context. Although the study recognizes the essential role that demand plays in improving labor market outcomes, analysis of these constraints — which requires a comprehensive approach across multiple facets of the economy — is beyond the scope of this study. The scarcity of labor demand is a particularly binding constraint in Greece with continued low growth and limited employment creation. The policy directions identified will help strengthen the current employment support system, however it cannot be expected to have significant impacts on labor market outcomes unless labor demand recovers.

The study provides a snapshot of the needs of the labor market vulnerable and the relevant policies, to inform strategic policy choices and directions. Operationalization of these policy directions (such as improvements in existing programs) requires a sequence of activities including more in-depth analysis using program-level administrative and expenditure data as well as the more commonly used profiling methods. Thus, the conclusions should be interpreted in this light.

This Country Policy Paper is one of twelve that is under study, and analyzes the out of work and marginally employed population in Greece, along with existing activation and employment support policies and programs. The paper consists of seven sections, including this introduction. Section 2 provides background on the Greek labor market. Section 3 describes the framework and the statistical clustering methodology. Section 4 presents the results, including a description of the identified clusters according to labor market barriers and demographic and socioeconomic characteristics. Section 5 expands on this information with a more detailed analysis of the groups that, together with the government of Greece, have been selected as priority groups for policy and program interventions. Section 6 analyzes the current policies and programs that address the needs of the prioritized groups. Finally, section 7 presents conclusions along with policy directions.

2. Country context: Labor markets in Greece

As the prolonged economic crisis continues to deeply affect the Greek economy, labor market indicators remain worrisome, despite small positive changes since 2014. After years of respectable growth accompanied by the emergence of significant macroeconomic imbalances, Greece endured six consecutive years of recession (2008–2013). Following a modest recovery in 2014, gross domestic product (GDP) growth turned negative in 2015 and grew at only 0.1 percent in 2016, although higher growth is expected to resume in 2017 (IMF, World Economic Outlook database). As output fell cumulatively by almost one-fourth since 2007, and median incomes fell by more than 30 percent, labor market outcomes deteriorated dramatically. Activity rates

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4 Six of the Country Policy Papers are led by the World Bank and include: Bulgaria, Croatia, Greece, Hungary, Poland, and Romania. The Country Policy Papers led by OECD include: Estonia, Ireland, Italy, Lithuania, Portugal, and Spain.
in Greece, at 67 percent for the whole population in 2015, remain among the lowest in the EU-28, where the average is 73 percent. The employment rate, which was 5 percentage points lower than that of the EU-28 average as Greece entered the crisis, fell sharply between 2008 and 2013, before recovering modestly and settling at less than 51 percent in 2015, the lowest among the EU and almost 15 percentage points lower than the EU average (Figure 1). By the same token, the unemployment rate, which was almost on par with the EU-28 when the crisis hit, rapidly increased, peaking at over 27 percent by 2014 and falling to about 25 percent in 2015, the highest rate in the EU and, again, 15 percentage points higher than the average for the EU-28. Even if unemployment has continued to fall in recent years, the current rate remains exceedingly high.

Aside from high unemployment and low employment, several important and concerning trends can be observed in the Greek labor market.

First, youth unemployment is still exceedingly high, at a rate more than double the EU average (Figure 2, panel a). Prior to the economic crisis, the youth unemployment rate in Greece hovered around 5 to 7 percentage points above the EU-28 average. Starting in 2010, it spiked, peaking at almost 60 percent in 2013. The rate of unemployment among 15 to 24 year olds settled at almost 50 percent in 2015, almost 30 percentage points higher than the figure observed in the EU-28. The percentage of youth neither in employment, education, or training (NEET rate) was close to the EU-28 average prior to the crisis. Subsequently, NEET rate, too, peaked, reaching as high as 20.4 percent in 2013, having since then only fallen to 18.1 percent in 2015. The EU-28 average is 12.0 percent, not too far from its pre-crisis rate of 10.9 percent in 2008.
Second, long-term unemployment has increased drastically, reversing the improvements achieved before the crisis (Figure 2, panel b). As of 2015, the share of the long-term unemployed among total unemployed stood at almost 75 percent—30 percentage points higher compared to the EU-28 average. This is a significant reversal of the decline in the share of long-term unemployed, which had bottomed out at 25 percent (4 percentage points lower than the EU average) in 2009. At 18 percent in 2015, Greece also registered the highest rate of long-term unemployment as a percentage of the economically active in the EU. Long-term unemployment is especially worrisome because it can lead to attrition of skills, deteriorating health conditions, as well as many people becoming discouraged and exiting the labor force, among other negative consequences.

Third, women seem at a distinct disadvantage relative to men, not only in terms of unemployment rates, but also in terms of all other labor market indicators. Unemployment among women settled at 28 percent in 2015 (55 percent among young women ages 15 to 24), compared to 21 percent among men (45 percent among men ages 15 to 24). These rates were the highest in the EU, comparable only to those observed in Spain. Similarly, the activity rate remains almost 16 percentage points lower among women than among men, while employment among Greek women (42 percent) is almost 20 percentage points lower than among Greek men (61 percent), and represents the lowest figure observed in the EU-28 (Eurostat).
Fourth, the crisis affected low- and mid-skilled individuals much more significantly in Greece. Workers with tertiary education weathered the crisis better than their lower educated counterparts. Although labor market indicators are expected to improve with additional education, the return to tertiary education as it relates to positive employment appears to be especially pronounced in Greece, possibly reflecting the scarce demand conditions in the labor market. Recent PIAAC (Program for the International Assessment of Adult Competencies) results indicate that Greece is the only country where adults who are out of the labor force score as well in literacy as those who are employed or are looking for a job (OECD 2016). This is in contrast to most of the participating countries where the employed population has higher skills than the unemployed and inactive population, and likely is another indication that jobs are still very scarce in the Greek labor market. According to Eurostat data (Figure 3), in 2015, the employment rate among those with at least some tertiary education was close to 68 percent, however the rate among those with primary and secondary education ranged from 40 to 50 percent. Similarly, unemployment rates among those with tertiary education settled slightly below 20 percent.

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5 Yet another potential indication of the scarce demand environment is that adults in Greece are more likely to be more proficient in literacy than their job requires compared to workers in other participating countries (OECD, 2016).
compared to rates of 27 to 28 percent among those with less than a tertiary education. This stark difference in unemployment rates for those without tertiary education also appears to be a recent post-crisis phenomenon. In contrast, data for the European Union as a whole show that the gap in unemployment for those with upper secondary education versus those with tertiary education is much smaller. Likewise, the average for EU-28 shows employment rates among those with upper secondary that are closer to those who have completed tertiary education. In Greece, the premium for upper secondary education is comparatively small.

Another striking feature of the Greek labor market is that overall activity rates lag behind the EU-average; this is due to low activity among youth and individuals nearing retirement. The overall activity rate in Greece in 2015 was 67.8 percent, versus 72.5 percent for EU-28. A comparison of activity rates by gender and age shows that individuals of prime age (25 to 49 years) have activity rates above the EU-28 average. This has especially been the case for men in this age group, and, after a recent rise in activity, is now also the case for women (Figure 4). However, among youth, the activity rate has been falling in recent years, and the gap vis-à-vis the EU-28 average has been growing. In 2015, less than 30 percent of men ages 15 to 24 participated in the labor market, and this was true for just under 25 percent of women in this same age group. A possible explanation for the decrease in activity rates could be that people were discouraged after long bouts of unemployment, as evidenced by high youth unemployment rates and the migration of more motivated youth to other EU countries especially after the crisis. Activity rates are also relatively low among those nearing retirement age (50 to 64 years). Interestingly, these rates have fallen recently for men, deviating from the trend among EU-28. Among women, rates have been slowly rising but are still considerably low, with an 18- percentage-point gap vis-à-vis the EU-28 average.

In part, low activity rates among youth and older individuals may reflect labor market legislation and/or cultural norms that are not conducive to voluntary part-time work. Voluntary part-time work, especially

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6 In a similar vein, recent PIAAC results indicate that in Greece, educational attainment, rather than proficiency in information processing skills, has the strongest impact on the likelihood of being employed; whereas in other participating countries, proficiency has the strongest link with labor market outcomes (OECD, 2016).
when under equal treatment vis-à-vis full-time work, can offer a way for otherwise excluded groups to participate or remain in paid work (ILO, 2016). Part-time work provides an opportunity for older or disabled individuals to accommodate for their physical limitations; for younger retirees to continue to be engaged in work while pursuing more leisure activities; for youth to prolong their education while gaining work experience; and for women (and sometimes men) to participate in caregiving or other domestic responsibilities. Furthermore, part-time work also helps attract and retain workers for specific schedules in difficult jobs (Kjeldstad and Nymoen, 2012, as cited in ILO, 2016). In Greece, individuals who may be interested in working but cannot take on a full-time job may be excluded from the labor market altogether, as shown by the very low percentage of part-time work activity compared to other EU member states, especially those in northern Europe where part-time work is explicitly encouraged by government policies (Figure 5). Although the proportion of part-time work in Greece has increased since the crisis — as has been the case in almost all EU countries — it is noteworthy that the increase in involuntary part-time work is substantial. In fact, more than 70 percent of part-time work is currently involuntary, as opposed to less than 50 percent before the crisis (European Commission, 2016).

![Figure 5: Part-time employment as a percentage of total employment by sex, EU member states, 2015](image)

Note: The EU-28 average is weighted.

Source: Eurostat LFS.

Finally, another distinguishing characteristic of the Greek labor market is a high share of self-employment. Although self-employment has fallen since the crisis, the share of self-employment in the Greek labor market is unusually high, at 33 percent in 2015 (the EU-28 average for the same year was 15 percent) (see Figure 6). Self-employment in Greece is also male dominated (males represent almost 70 percent of total self-employment) (EC, 2016). Wholesale and retail trade, transport, accommodation and food service, followed by agriculture, are the most prevalent sectors in which the self-employed work.

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7 Here, involuntary part-time work refers to individuals who, when asked why they work part-time, respond that they ‘couldn’t find full-time work.’
In light of the still precarious labor market conditions, especially the very low employment and the protracted and exceptionally high unemployment, Greece must put much more emphasis on improving its employment support policies to promote higher rates of employment and prevent discouragement and skills deterioration among jobseekers. Addressing these challenges will inevitably depend on aggregate demand picking up more broadly in the country. It is also necessary to revisit the barriers that keep jobless individuals out of the labor market and sharpen the focus of employment support and intermediation interventions.

3. Framework for analysis and methodology

With many unemployed or out of the workforce, and also many long-term unemployed at risk of becoming deskilled and/or becoming inactive, growth policies must place at the forefront the need to make better use of Greece’s human capital. Although statistics based on labor force surveys are categorized into broad groups such as “youth,” “older workers,” and “retirees,” these groups in themselves are not homogenous and might be facing a variety of different barriers to employment. Details on the characteristics of these groups, and the obstacles they face, are difficult to pinpoint. An effective strategy is to identify groups that share similar employment constraints and socioeconomic characteristics in an effort to design tailored policy interventions. Therefore, knowledge with respect to the characteristics of populations that are out of work or marginally employed, including the barriers to employment faced by such individuals, is fundamental to crafting a holistic approach to policymaking aimed at labor market inclusion.

The objective of this analysis is to arrive at a categorization of out of work or marginally employed individuals. The methodology used yields distinct sub-groups in terms of barriers to employment as well as socioeconomic characteristics. Developing narrower and more distinct categories of individuals that share similar characteristics and face similar constraints provides a stronger evidence base to guide the design of activation and employment support policies (AESPs). This process also helps policy makers view more critically the existing policies and assess their relevance and appropriateness in light of needs of the target population and priorities.

The rationale behind this exercise is thus to offer Government of Greece — in particular, Ministry of Labor, Social Solidarity and Social Insurance, and Manpower Employment Organization (OAED)— an
advanced statistical tool that will shed light on the characteristics of out of work and marginally employed. Simply put, this tool serves as a sound basis to identify the distinct needs of the vulnerable with low labor market attachment, and can support the design of policies and programs that are suited to their needs.

3.1 Target population: Individuals with potential labor market difficulties

The target population is a subset of the Greek population of working age (18 to 64, excluding full-time students and those serving compulsory military service). The population comprises individuals who self-reported being out of work during the entire survey reference period in addition to individuals who were marginally employed due to unstable jobs, restricted working hours, or very low earnings. As such, the analysis offers a much broader perspective than common profiling exercises, which use administrative data collected on registered jobseekers and have a different objective, namely to inform operational decisions on a daily basis.

This analysis expands upon the scope of traditional profiling exercises. It includes individuals who face difficulties entering the labor market as well as those who are not working at an optimal level (in terms of number of hours or job quality); those not covered by any activation measures; and those registered as unemployed. Set out in Box 1 is the definition of different labor market attachment categories for those individuals included in the analysis, also, as mentioned above, referred to as the target population.

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Box 1. Definition of target population

The target population consists of working-age individuals (ages 18 to 64, excluding full-time students and individuals in compulsory military service) who are entirely out of work (either actively searching for a job or inactive) or who are marginally employed. Specific groups include the following:

- **Persistently out-of-work**: Individuals in this group reported being unemployed, retired, or inactive throughout the reference period (12 consecutive months and at the time of the interview). These individuals were also not working at the time of the survey interview.

Individuals that are marginally employed can be categorized into the following three non-mutually exclusive groups:

- **Unstable jobs**: Includes individuals who reported work activity but only for a limited number of months during the reference period (maximum 45 percent of potential working time) and also includes individuals who reported no work activity during the income reference period, but reported being employed at the time of the interview;

- **Restricted working hours**: Includes individuals who reported having less than 20 hours of work per week, for most or all the reference period. Excluded from this group are members of the target population who work 20 hours or less because they were in school or in training programs or because the number of hours they worked is considered to be a full-time job in their field of work.

- **Negative, zero, or near-zero labor incomes**: Includes individuals who reported some work activity during the income reference period but had negative, zero, or near zero earnings. Specifically, to allow comparison across countries, we adopt the same low-earnings threshold for all countries at EUR 120/month in purchasing power parities with EU-28 as the reference. This translates to EUR 106 per

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* The survey data used were EU-SILC 2014 data, where the reference period is equal to the previous calendar year, i.e., 2013. EU-SILC data is used rather than the LFS due to the opportunity to observe the labor market status of each individual over the course of an entire calendar year as well as the richness of this data on socioeconomic characteristics. The delay in data availability indicates that certain changes in the structure of the labor market may have occurred since then which can be particularly true for Greece. For a detailed discussion on the advantages and disadvantages of EU-SILC data, see Annex 1. The data used on the policy section is the most recent data available.
month for Greece, which is well below the statutory minimum wage of EUR 683 per month in 2013. Nearly all the individuals in this category are self-employed.

*Note: The data source is ELSTAT European Union Survey of Income and Living Conditions (EU-SILC) 2014. More detailed information on the definition of each group are available in the background methodological paper (OECD and World Bank, 2016).

*There are several reasons why the three groups are not mutually exclusive. For example, an individual in an unstable job could also be working restricted hours and could be earning a very low income. However, for the purposes of this analysis, individuals are assigned to a single category, starting with unstable jobs and ending with negative, zero, or near-zero labor incomes as a residual category.

The target population in Greece represents 49 percent of the working-age population. The remainder, 51 percent, comprises individuals with no potential labor market difficulties (i.e. those who hold “good jobs”) (left panel in Figure 7). Translated to numbers, the target population represents 3.02 million individuals; the population with “good” jobs represent 3.16 million individuals.

The target population is heterogeneous and can be categorized into those who are persistently out of work (41 percent of the working-age population) and those that are marginally employed (8 percent). Individuals that are marginally employed can be further disaggregated into (i) those who have unstable jobs (5 percent); (ii) those who have restricted working hours (2 percent); and (iii) a remainder category of people who, despite not having unstable jobs or restricted incomes, have near-zero earnings (1 percent). Similarly, the population that is persistently out of work can be broken down as follows: unemployed (17 percent), retired (9 percent), disabled (2 percent), engaged in domestic tasks (12 percent), or inactive due to other reasons (1 percent) (right panel in Figure 7).

*Figure 7: Composition of working-age population (left) and persistently out of work (right) in Greece

*Ages 18–64 and not studying full time or serving compulsory military service.

*Note: The reference population (working-age population) represents 6.18 million individuals; of these, 3.03 million individuals make up the target population.

A unique characteristic of the Greek population of working age is the relatively large percentage of individuals who are out of work. It is particularly striking that 41 percent of the working-age population in Greece was out of work during the survey reference period, compared to 30 percent across the 12 countries that are under study (Figure 8 Error! Reference source not found.). Together with the population that is marginally employed, the target population in Greece makes up 49 percent of the working-age population. As such, only 51 percent of the working-age are considered to not have any labor market difficulties, versus an average of 61 percent across the 12 countries. The high proportion of out of work individuals is largely a reflection of high unemployment in Greece. On the other hand, the population that is marginally employed represents a similar proportion as the average for the 12 countries, with similarly small proportions of individuals with unstable jobs, restricted working hours, and near-zero earnings.

**Figure 8: Composition of working-age* population by labor market status, Greece and other EU countries under study (percent)**

* Ages 18–64 and not studying full time or serving compulsory military service.

**Weighted average.

*Source: World Bank staff calculations based on EU-SILC 2014 for Greece; EU-SILC 2013 for all other countries.

Disaggregating the population that is persistently out of work by labor market status reveals that, compared to the average for the 12 EU countries that are part of the broader study, the Greek out-of-work population is disproportionately unemployed. As shown in Figure 9, 17 percent of the Greek population of working age is classified as unemployed; by contrast, the proportion classified as unemployed across the 12 countries under study was 10 percent. This particularly high proportion of unemployed is to be expected given Greece’s high unemployment rate. The percentage of individuals reporting to be inactive due to retirement, disability, engagement in domestic tasks, or for other reasons in Greece is generally similar to the average across the 12 countries, with a small overrepresentation of retired individuals and those engaged in domestic tasks.

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9 The out of work refer to individuals who report being unemployed or inactive (retired, disabled, domestic tasks, or other inactive) over the entire reference period as well as at the time of the survey interview.

10 The out of work refers to individuals who report being unemployed or inactive over the entire reference period as well as at the time of the survey interview. Labor market status refers to the main activity reported during the reference period.
**Figure 9:** Composition of the persistently out of work population by labor market status, Greece and other EU countries under study (percent of working-age population)

*Weighted average.

Notes: 1. Working-age population refers to individuals 18 to 64 years old who are not studying full time or serving compulsory military service. 2. Out of work individuals report being unemployed or inactive during each of the 12 months of the reference period and at the time of the survey interview. Labor market status refers to the main activity reported during the reference period.

*Source*: World Bank staff calculations based on EU-SILC 2014 for Greece; EU-SILC 2013 for all other countries.

### 3.2 Employment barrier indicators

To segment the target population into distinct groups according to their labor market barriers and socioeconomic characteristics, a set of indicators has been formulated. The indicators aim to capture the employment barriers that prevent individuals from being partially or fully active in the labor market. They represent three types of employment barriers, as defined below and illustrated in Figure 10.

- **Insufficient work-related capabilities** include factors that may limit an individual’s ability to perform certain tasks. These include, for example, low education (as a proxy for skills); low work experience; caregiving responsibilities; or limitations in daily activities due to health status.

- **Weak economic incentives to look for or accept a “good” job**: an individual may decide not to participate in the labor market because he or she could potentially lose social benefits by taking up work or accepting a job with higher earnings (substitution effect) or if the person may already have a high standard of living due to other income sources and can therefore consume more leisure time (income effect).
• **Scarce employment opportunities** can be due to a shortage of vacancies in the relevant labor market segment (geographical area or sector); friction in the labor market due to information asymmetries, skills mismatches, discrimination, or lack of social capital, or other frictions present in labor markets.

![Employment barriers framework](image)

**Figure 10: Employment barriers framework**

*Source: OECD and World Bank (2016).*

The three types of barriers described above cannot be directly observed using survey data. Thus, a set of eight indicators have been constructed using EU-SILC 2014 data in order to proxy for broad measures for each of the three different types of employment barriers. Together, the eight indicators serve as a starting point for identifying and characterizing the target population according to the barriers they face. However, bear in mind that while these indicators can capture broad aspects of the three main types of employment barriers identified in this framework, they do not offer a comprehensive view of the labor market barriers. The indicators used for Greece are outlined in Box 2. Additional information on the definitions and construction of each indicator is available in Annex 2, as well as in the joint methodological paper (OECD and World Bank, 2016).

**Box 2. Definitions of employment barrier indicators used for Greece**

The indicators represent the different types of employment barriers and are constructed from EU-SILC 2014 data as follows:

*Five indicators are used to proxy for capabilities barriers:*

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**Note:** The indicators represent the barriers that we are able to capture using EU-SILC data. Moreover, employment barriers are complex and are often the result of the interaction of different individual and household characteristics including gender, age, socioeconomic status, ethnicity, social and cultural norms, as well as frictions in the labor market that we are unable to capture with household data.
• **Low education:** If an individual has an education level equal to or lower than post-secondary non-tertiary education (based on the International Standard Classification of Education (ISCED-11))*

• **Caregiving responsibilities:** If an individual lives with someone who requires care (i.e., children 12 and younger who receive less than 30 hours of care a week or elderly with health limitations) and is either the only potential caregiver in the household or is reported as inactive or working part time because of caregiving responsibilities

• **Health limitations:** If an individual reports some or severe self-perceived limitations in daily activities due to health conditions

• **Low relative work experience:** individuals who have worked less than 60 percent of the time since they left full time education;

• **No recent work experience:** The indicator may represent two situations:
  o those who have worked in the past but have no recent work experience (have not worked for at least 1 month in the last semester of the reference year or at the month of the interview);
  o those who have never worked;

**Two indicators are used to proxy for incentives barriers**

• **High non-labor income:** If household income (excluding income from the individual’s work-related activities) is more than 1.6 times higher than the median value in the reference population

• **High replacement benefits:** If earnings-replacement benefits (excluding categorical social benefits) are more than 60 percent of an individual’s estimated potential earnings in work;

**One indicator is used to proxy for scarce employment opportunities:**

• **Scarce employment opportunities:** If an individual is estimated to have a high probability of being unemployed or involuntarily working part time due to his or her age, gender, education, and region of residence. It should be noted that, the scarce employment opportunities indicator does not take into account the fact that individuals who are not unemployed but are inactive may nonetheless face scarce opportunities if they were to search for a job.

*In Greece, the cut-off for low education has been set at post-secondary rather than lower secondary. The reason for the change in the cut-off is that a look at unemployment (employment) rates by education level shows that unemployment (employment) only falls (rises) significantly among individuals who have completed tertiary education.

As expected, the target population is more likely to face each employment barrier than the overall working-age population (Table 1). A common barrier faced by the target population is low skills (81 percent have not completed tertiary education). Although less prevalent, at 72 percent, low skills are also a relatively common barrier among the working-age population. More than one half (57 percent) of the target population also has low relative work experience; this barrier, in contrast, is present in only 36 percent of the working-age population as a whole. Forty-five percent of the target population faces scarce job opportunities, meaning that due to their gender, age, education, and the region where they reside, they resemble the population who is long-term unemployed or involuntarily working part time. Again, this is the case for only 34 percent of the working-age population. Likewise, while almost one fifth of the target population face health limitations, the proportion found among the population of working age is much lower (13 percent). Remarkably, the high non-labor income barrier, which refers to high income coming from sources other than the individual’s labor, at 23 percent, is relatively similar to that found among the working-age population (21 percent). The least common barrier is high earnings replacement (i.e., relatively high benefits), found among 12 percent of the target population — although this is a relatively low proportion, it is double that found among the population of working age. As

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12 The working-age population excludes individuals that are studying full time or doing compulsory military service. The caregiving responsibilities barrier, by definition, does not affect any individuals who are not members of the target population. The same is true of the barriers associated with recent work experience. The population with “good” jobs (i.e., the working-age population outside of the target population), by definition, has recent work experience because they have all worked for at least 1 month during the last semester (i.e., last 6 months) of the reference year or at month of the interview. All other barriers can equally affect individuals who are outside the target population.

13 It is less common, however, among the population with “good” jobs (62 percent).
regards to the caregiving responsibilities barrier, 16 percent of the target population is affected (the figure for the working-age population is much lower at 8 percent, but it is important to note that, by definition, only the target population faces this barrier). Finally, a full 85 percent of the target population have no recent work experience (59 percent have no recent work experience but have worked in the past, and another 26 percent have never worked before). This barrier is less prevalent among the working-age population (12 percent), but this is to be expected since it does not apply to individuals who are not part of the target population.

Within the target population, the persistently out of work are much more likely to face each employment barrier than the marginally employed, with the exception of the scarce opportunities barrier. The marginally employed population, by construction of the indicator, is not likely to face the caregiving responsibilities or the no recent work experience barrier. They are more likely to face the scarce opportunities barrier, which may indicate that their characteristics resemble the unemployed and involuntary part-time more than the persistently out of work (given the high share of inactive among out of work). Those that are marginally employed also have a lower incidence of low education, health limitations, low relative work experience, or incentives barriers.

Table 1: Characterization of target and working-age population according to barrier indicators (percent)

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>Working-age population*</th>
<th>All</th>
<th>Persistently out of work</th>
<th>Marginally employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low education</td>
<td>72</td>
<td>81</td>
<td>82</td>
<td>75</td>
</tr>
<tr>
<td>Caregiving responsibilities**</td>
<td>8</td>
<td>16</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>Health limitations</td>
<td>13</td>
<td>19</td>
<td>22</td>
<td>8</td>
</tr>
<tr>
<td>Low relative work experience (WE)</td>
<td>36</td>
<td>57</td>
<td>62</td>
<td>36</td>
</tr>
<tr>
<td>No recent WE - Has worked in the past**</td>
<td>29</td>
<td>59</td>
<td>69</td>
<td>12</td>
</tr>
<tr>
<td>No recent WE - Has never worked**</td>
<td>13</td>
<td>26</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>High non-labor income</td>
<td>21</td>
<td>23</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>High earnings-replacement benefits</td>
<td>6</td>
<td>12</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Scarce job opportunities</td>
<td>34</td>
<td>45</td>
<td>44</td>
<td>53</td>
</tr>
</tbody>
</table>

Source: Calculations based on ELSTAT EU-SILC 2014.
*Excludes individuals that are studying full time or doing compulsory military service.
**By definition, this barrier does not affect any individuals who are not members of the target population.

The target population in Greece is generally similar to the other countries under the study in terms of the prevalence of employment barriers (Error! Reference source not found. 2). Several barriers appear to be more prevalent among the Greek target population than among other countries, but most differences are relatively small in magnitude. Among the differences that stand out is the relatively higher prevalence of individuals that have never worked before (26 percent in Greece, versus 19 percent for six countries). Low relative work experience is also higher for Greece (57 percent, versus 52 percent). Finally, scarce employment opportunities also appear to be relatively high in Greece. This may reflect the fact that the target population in Greece has a high percentage of unemployed. On the other hand, it is noteworthy that the prevalence of

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Some figures are not comparable across countries. The low education barrier for Greece, at 81 percent, encompasses all individuals who have not completed tertiary education. For the other five countries under study by the World Bank, the low education barrier refers to individuals who have not completed upper secondary education. A different threshold was chosen for Greece because unemployment and employment rates differ substantially for those with tertiary education. In contrast, the gap in labor market outcomes is small between those who have completed upper secondary education and those who have not.
individuals with health limitations is relatively low among the target population Greece: at 19 percent, it is 10 percentage points lower than the six-country average.

Table 2: Characterization of Target population according to barrier indicators (percent): International comparison

<table>
<thead>
<tr>
<th>Country</th>
<th>Bulgaria</th>
<th>Croatia</th>
<th>Greece</th>
<th>Hungary</th>
<th>Poland</th>
<th>Romania</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capabilities barriers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Low education</td>
<td>38</td>
<td>30</td>
<td>81***</td>
<td>31</td>
<td>19</td>
<td>45</td>
<td>33</td>
</tr>
<tr>
<td>2 - Caregiving responsibilities</td>
<td>13</td>
<td>12</td>
<td>16</td>
<td>15</td>
<td>15</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>3 - Health limitations</td>
<td>19</td>
<td>33</td>
<td>19</td>
<td>37</td>
<td>30</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td>4 - Low relative work experience (WE)</td>
<td>N/A*</td>
<td>59</td>
<td>57</td>
<td>N/A*</td>
<td>43</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>5 - No recent WE - Has worked in the past</td>
<td>58**</td>
<td>65</td>
<td>59</td>
<td>73</td>
<td>66</td>
<td>45</td>
<td>62</td>
</tr>
<tr>
<td>6 - No recent WE - Has never worked</td>
<td>19**</td>
<td>20</td>
<td>26</td>
<td>9</td>
<td>10</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td><strong>Incentives barriers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 - High non-labor income</td>
<td>18</td>
<td>20</td>
<td>23</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>7 - High earnings-replacement benefits</td>
<td>6</td>
<td>3</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td><strong>Opportunity barrier</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 - Scarce employment opportunities</td>
<td>47</td>
<td>35</td>
<td>45</td>
<td>41</td>
<td>32</td>
<td>26</td>
<td>38</td>
</tr>
</tbody>
</table>

* In Bulgaria and Hungary, a significant share of observations on work experience was missing from the EU-SILC 2013 dataset: as a result, the low relative work experience indicator could not be constructed for these countries.
** In Bulgaria, a significant share of observations was missing from the data on activities conducted in the reference year: as a result, the indicator was constructed differently from the way it was done in the other countries.
*** In the case of Greece, the cut-off for low education has been set at post-secondary rather than lower secondary level. The reason for the change in the cut-off is that a look at unemployment (employment) rates by education level shows that unemployment (employment) only falls (rises) significantly among individuals who have completed tertiary education.

Source: World Bank staff calculations based on EU-SILC 2013 for Bulgaria, Croatia, Hungary, Poland, and Romania, and based on EU-SILC 2014 for Greece.

4. Results of the analysis: Portraits of labor market exclusion in Greece

Applying latent class analysis, the segmentation statistical tool used in this study, results in the classification of the target population into eight different groups. Each group varies in terms of size (as illustrated in Figure 11), characteristics of its population and the mix and intensity of barriers they face. The make-up of the groups and their relative sizes reflect several aspects of the Greek labor market that were described in section 2. The largest group, comprising more than 25 percent of the target population, is made up of unemployed individuals. This is reflective of high unemployment, and high long-term unemployment. A group of unemployed NEETs is to be expected, given the high unemployment rates among youth. There are also two groups of inactive women, signaling low activity in the female labor market. Interestingly, the group of retirees is relatively small, although attention should be drawn to the fact that a large percentage of retirees is found among a group of mostly inactive women.
Figure 11: Latent groups within the Greek target population

- Group 1: Low-income middle-aged long-term unemployed with work experience
- Group 2: Older inactive with past work experience and health limitations
- Group 3: Low-educated inactive women with no work experience
- Group 4: Relatively educated long-term single unemployed NEETs
- Group 5: Well-off relatively educated (early) retirees
- Group 6: Rural middle-aged in unstable jobs
- Group 7: Urban middle-aged part-time workers
- Group 8: Stay-at-home married mothers with care responsibilities

Source: Calculations based on ELSTAT EU-SILC 2014.

Table 3 shows the incidence of barriers within each of the eight groups that emerged from the analysis, which have been named according to their most salient characteristics (i.e. those that have a high probability of occurrence for each group). 15 Annex 4 provides a detailed list of characteristics by group and for the target population, including the active covariates that were also used in the model (sex, age group, the presence of children younger than 12 in the household, the main labor market status reported during the reference period, and the degree of urbanization in the place of residence) as well as additional socioeconomic characteristics. The paragraphs in the boxes below describe in more detail each group’s more salient characteristics.

Table 3: Result of latent class analysis for populations with labor market difficulties in Greece: Labor market barriers

<table>
<thead>
<tr>
<th>Group size (% of target population)</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>Target Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capabilities barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Low skills</td>
<td>78</td>
<td>89</td>
<td>97</td>
<td>66</td>
<td>65</td>
<td>88</td>
<td>72</td>
<td>84</td>
<td>81</td>
</tr>
<tr>
<td>2 Caregiving responsibilities</td>
<td>18</td>
<td>15</td>
<td>11</td>
<td>3</td>
<td>5</td>
<td>12</td>
<td>13</td>
<td>75</td>
<td>16</td>
</tr>
<tr>
<td>3 Health limitations</td>
<td>12</td>
<td>44</td>
<td>25</td>
<td>8</td>
<td>17</td>
<td>11</td>
<td>7</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>4 Low relative work experience (WE)</td>
<td>53</td>
<td>44</td>
<td>100</td>
<td>96</td>
<td>3</td>
<td>34</td>
<td>28</td>
<td>78</td>
<td>57</td>
</tr>
<tr>
<td>5 No recent WE - Has worked in the past</td>
<td>92</td>
<td>91</td>
<td>23</td>
<td>19</td>
<td>100</td>
<td>1</td>
<td>0</td>
<td>47</td>
<td>59</td>
</tr>
</tbody>
</table>

15 The titles are somewhat subjective; nevertheless, they mirror the barriers/characteristics that are common to more than 50 percent of the groups.
Portraits of Labor Market Exclusion 2.0

<table>
<thead>
<tr>
<th>Incentives barriers</th>
<th>6</th>
<th>9</th>
<th>77</th>
<th>65</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>50</th>
<th>26</th>
</tr>
</thead>
<tbody>
<tr>
<td>High non-labor income</td>
<td>16</td>
<td>25</td>
<td>27</td>
<td>30</td>
<td>27</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>High earnings replacement</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>90</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Opportunity barrier</td>
<td>8</td>
<td>94</td>
<td>0</td>
<td>7</td>
<td>99</td>
<td>0</td>
<td>4</td>
<td>96</td>
<td>75</td>
</tr>
<tr>
<td>Average number of barriers</td>
<td>3.7</td>
<td>3.2</td>
<td>3.7</td>
<td>3.8</td>
<td>3.1</td>
<td>1.7</td>
<td>2.3</td>
<td>4.2</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Notes: All figures represent percentages. Only categories depicting barriers to employment are included; complementary categories (e.g., "high skills" or "recent work experience") are omitted. Color shadings identify categories with high (darker) and lower (lighter) incidences.

The group names are as follows: **Group 1**: Low-income middle-aged, long-term unemployed, with work experience. **Group 2**: Mostly female, older inactive, with past work experience and health limitations. **Group 3**: Low-educated, inactive women with no work experience. **Group 4**: Relatively educated, long-term unemployed, single NEETs. **Group 5**: Well-off, relatively educated (early) retirees. **Group 6**: Rural, middle-aged in unstable jobs. **Group 7**: Urban, middle-aged part-time workers. **Group 8**: Stay-at-home married mothers with caregiving responsibilities.

**Source**: Calculations based on ELSTAT EU-SILC 2014.

**Group 1: Low-income middle-aged, long-term unemployed, with work experience (24 percent of the target population)**

- 77 percent middle-aged (30–55); average age is 41
- 99 percent unemployed*; 95 percent long-term unemployed*; 89 percent actively searching for a job
- 57 percent female
- 52 percent have upper secondary or post-secondary education
- 73 percent live in urban areas (46 percent densely populated; 27 percent intermediate)
- 47 percent are at risk of poverty; 44 percent live in severe material deprivation
- Average number of barriers: 3.7

*During the reference period

Group 1, the largest group of all, makes up almost one quarter of the target population. The group is primarily made up of long-term unemployed (95 percent) middle-aged (30 to 55) individuals (77 percent). The majority (57 percent) are female, although a significant percentage (43 percent) is male. The members of this group have no recent work experience (98 percent), but they have worked in the past (92 percent). About half have low relative work experience (53 percent). Seventy-eight percent are considered to have a low education barrier, as they have not completed tertiary education. Their educational attainment mostly resembles that of the overall target population. Most (73 percent) live in urban (densely and moderately populated) areas. A distinguishing feature of this group is that it has the highest percentage of people living at risk of poverty (47 percent, versus 34 percent of the target population); in addition, it has the highest percentage of people living in severe material deprivation (44 percent, versus 31 percent of the target population). The most commonly faced barriers are scarce job opportunities (94 percent); no recent work experience (98 percent, with 92 percent having worked in the past and 6 percent having never worked); and low education (78 percent).

**Group 2: Mostly female, older inactive, with past work experience and health limitations (19 percent of the target population)**
Group 2, the second largest group, makes up almost one fifth of the target population and comprises mostly women (65 percent) who are inactive, for varying reasons (80 percent are inactive, with 43 percent retired, 26 percent engaged in domestic tasks, and 11 percent are "other inactive"). The majority (60 percent) are older (56–64), and the rest are middle-aged (30–55); the average age is 55. This group has the highest concentration of people with health limitations, at 44 percent (versus 19 percent among the target population). Nearly all the members of this group have no recent work experience, but the great majority have worked before (91 percent). Less than half (44 percent) have low relative work experience (versus 57 percent of the target population). Eighty-nine percent are facing an education barrier, as they have at most completed upper secondary schooling. Drilling down further, 50 percent have at most completed lower secondary, making this group relatively low skilled. The most commonly faced barriers are no recent work experience (99 percent; 91 percent have worked in the past); low education (89 percent); health limitations (44 percent); and low relative work experience (44 percent).

Group 3 makes up 17 percent of the target population. It is made up of women (94 percent), who are mostly married (80 percent) and who are generally engaged in domestic activities (88 percent). Interestingly, however, only 8 percent live with children 12 and younger, and only 11 percent face a caregiving responsibilities barrier. Given their average age of 51 (62 percent are middle-aged and 35 percent are older), it is possible that this group of women may have at one point faced a caregiving responsibilities barrier, but their children are now grown. This group of women has low relative work experience (100 percent), and most have never worked at all (77 percent). Among the eight identified groups, this group is the least educated — 57 percent have not completed upper secondary (97 percent have not completed tertiary and thus face the low education barrier). The most commonly faced barriers are low relative work experience (100 percent); no recent work experience (100 percent, 77 percent have never worked); and low education (97 percent).
Group 4: Relatively educated, long-term unemployed, single NEETs (11 percent of the target population)

- 88 percent 18–29 years old; average age is 26
- 91 percent unemployed; * 79 percent unemployed 12 months or longer
- 61 percent male
- 34 percent have a tertiary education; 51 percent have upper secondary or post-secondary education
- 84 percent have no recent work experience; 65 percent have never worked
- 96 percent have low relative work experience
- 89 percent live with parents; 95 percent have never been married
- 30 percent have a high non-labor income; 38 percent are at risk of poverty
- Average number of barriers: 3.8

*During the reference period

This group represents 11 percent of the target population. With 88 percent of the group falling between the ages of 18 and 29, this is the youngest group (the average age is only 26, and 42 percent are 24 years or younger). Nearly all report being unemployed (91 percent), and the great majority (79 percent) have been unemployed for 12 months or longer. Most (61 percent) are male, but a significant percentage (39 percent) is female. The members of this group face scarce job opportunities (99 percent), and have low relative work experience (96 percent). The next most common barriers are low education (66 percent, a relatively low percentage) and having never worked before (65 percent, one of the highest percentages among the eight identified groups). These youths tend to have never been married (95 percent) and to be living with their parents (89 percent). Because of their living situation, a large percentage (30 percent) tends to have high non-labor income that could be raising their reservation wage. Nonetheless, more than one third (38 percent) are still at risk of poverty. The most commonly faced barriers are scarce job opportunities (99 percent); low relative work experience (96 percent); low education (66 percent); and no recent work experience (84 percent, 65 percent has never worked).

Group 5: Well-off, relatively educated (early) retirees (11 percent of the target population)

- 70 percent ages 56–64; 30 percent middle aged (30–55); average age is 57
- 99 percent retired*
- 60 percent male
- 35 percent have tertiary; 40 percent have upper secondary or post-secondary education
- 100 percent have no recent work experience but have worked before
- Only 3 percent have low relative work experience
- 27 percent have high non-labor income; 70 percent in the upper two income quintiles; only 4 percent at-risk of poverty.
- Average number of barriers: 3.1

*During the reference period
Like Group 4, this group makes up 11 percent of the target population. (Early) retirees are a large share of this group, and not all are in the older (56–64) age category. Thirty percent are middle-aged (30–55), which reflects a high percentage of early retirees. The majority (60 percent) are male. This group is relatively educated: only 65 percent face the low education barrier, meaning that 35 percent have completed tertiary schooling, the highest percentage among any other group. A striking feature of this group is its high earnings-replacement barrier, at 90 percent. This is due to the high level of retirement (98 percent receive old-age benefits of EUR 18,807 per annum, on average). As such, this group is also highly concentrated in the upper income quintiles (70 percent are in the upper two quintiles) and faces the lowest risk of poverty, at only 4 percent. Now enjoying retirement, this group accumulated significant work experience: only 3 percent are categorized as having low relative work experience (100 percent have no recent work experience, but they have worked in the past). The most commonly faced barriers are no recent work experience high earnings-replacement benefits (90 percent); and low education (65 percent).

Group 6: Rural, middle-aged in unstable jobs (6 percent of the target population)

- 85 percent middle-aged (30–55); average age is 44
- 50 percent unemployed (20 percent long-term unemployed); 33 percent self-employed; 7 percent employed*
- 83 percent employed at time of the interview; 16 percent unemployed
- 59 percent are in unstable jobs; 25 percent are in near-zero income jobs
- 55 percent female
- 49 percent have lower secondary education or below; 39 percent have upper secondary or post-secondary
- 65 percent live in rural areas
- 44 percent are at-risk of poverty
- Average number of barriers: 1.7

*During the reference period

This group is one of three groups that each make up just 6 percent of the target population. It is rather heterogeneous in terms of labor market status during the reference period, with a significant percentage (50 percent) having reported unemployment. However, 83 percent reported being employed at the time of the interview. Because they did not work over the entire reference period, 59 percent are considered as having unstable jobs. An additional 14 percent are considered as having worked restricted hours, while 25 percent have very low or near-zero income. This group has relatively low education: 88 percent have not completed tertiary schooling. Thus, group members are considered to face a barrier in terms of skills; 49 percent are in an even more precarious situation, as they have at most completed lower secondary. The group has an almost 50/50 gender divide, is made up mostly of middle-aged individuals (85 percent are ages 30 to 55), and is concentrated in rural ( thinly populated) areas (65 percent). The risk of poverty is high among this group: at 44 percent, it is the second highest among the eight identified groups. The most commonly faced barriers are low education (88 percent) and low relative work experience (34 percent).

Group 7: Urban, middle-aged part-time workers (6 percent of the target population)
69 percent middle aged (30–55); 25 percent young (18–29); average age is 38
➢ 51 percent employed part time; 21 percent self-employed part-time; 23 percent unemployed*
➢ 52 percent female
➢ 52 percent have completed upper secondary or post-secondary schooling; 28 percent have completed tertiary
➢ 74 percent live in urban areas (45 percent densely populated; 29 percent intermediate)
➢ 28 percent have low relative work experience
➢ Average number of barriers: 2.3
*During the reference period

Like the previous group, this group also makes up only 6 percent of the target population. It is composed mostly of middle-aged individuals (69 percent are 30–55), and one quarter are youth ages 18–29; the average age is 38. This group is nearly 50-50 male/female. The group is distinguished as having the largest proportion (77 percent) of individuals who were working during the reference period (no individuals in this group face a barrier related to recent work experience). For the most part, these individuals were working part time: 51 percent were employed part time and 21 percent were self-employed working part-time. A significant proportion was also unemployed during the reference period (23 percent), although only 10 percent reported being unemployed at the time of the interview. Seventy-two percent of this group faces a low education barrier. The group is mostly urban (74 percent). The most commonly faced barriers are scarce job opportunities (96 percent) and low education (72 percent).

Group 8: Stay-at-home married mothers with caregiving responsibilities (6 percent of the target population)

65 percent middle aged (30–55); 35 percent young (18–29); average age is 33
➢ 78 percent engaged with domestic tasks and 17 percent unemployed*
➢ 98 percent female
➢ 75 percent have caregiving responsibilities
➢ 92 percent are married
➢ 52 percent have upper secondary or post-secondary
➢ 50 percent have never worked before
➢ 80 percent live in urban areas
➢ 35 percent are migrants
➢ 42 percent at risk of poverty
➢ Average number of barriers: 4.2
*During the reference period

This group also makes up 6 percent of the target population. It is composed almost entirely of married (92 percent) women (98 percent) who are middle-aged (30-55, 65 percent) and young (18-29, 35 percent). The average age is only 33, making it the second youngest group after the NEETs (Group 4). This group is distinguished as being the group most likely to face caregiving responsibilities (75 percent) and most likely to be living with children 12 years old and younger (95 percent). Likewise, a high percentage lives with children younger than 6 (63 percent) or younger than 3 (36 percent). As such, 78 percent are engaged in domestic tasks (another 17 percent are unemployed). Most members of this group have low relative work experience (78 percent), although 50 percent have worked before, which is a higher percentage than that found among their inactive female counterparts in Group 3. A high percentage (84 percent) face a low education barrier. Another distinguishing characteristic of this group is that it is the most urban among the
Figure 12 below shows the distribution of the number of barriers faced by individuals in each group (left axis), as well as the average number of barriers faced (right axis). On average, all individuals in the target population face a total of 3.2 barriers; the highest possible number of barriers that an individual can face is 7. Groups 4, 3, 8, and 1 stand out as having a particularly high average number of barriers, varying between 3.5 and 3.8. Group 8 stands out as having a very high proportion of individuals facing 5 or more barriers (49 percent). Groups 7 and 6, on the other hand, have a particularly low average number of barriers (only 2.2 and 1.6, respectively). Interestingly, they are also the only groups with individuals facing no barriers at all; however, in both groups, the incidence of individuals with no barriers is still very low.

**Note:** Groups are ordered according to the average number of barriers per individual. Percentages in horizontal axis represent group sizes. Source: Calculations are based on ELSTAT EU-SILC 2014.

### 5. Priority groups in the Greek labor market

Among the eight identified groups in the out-of-work and marginally employed population (target population) in Greece, three groups may be singled out for prioritization for activation and employment support policies (AESP) and social inclusion. They are Group 1 (low-income, middle-aged, long-term unemployed, with work experience), Group 4 (relatively educated, long-term unemployed, single NEETs), and Group 8 (stay-at-home married mothers, with caregiving responsibilities). The first two of these three groups were selected as they reflect the salient challenges in the Greek labor market: a very high (long-term)
unemployment rate; a large percentage of youth who are neither in employment, education, or training; and a high unemployment rate among youth. The last group, which is composed of stay-at-home mothers, many of whom are young, is reflective of low labor force participation rates among young women. This group also is a priority for intervention due to the presence of children in the households, many of whom are living in poverty. Together, these three groups represent 41 percent of the target population, or about 1.24 million individuals.

The five remaining groups, which represent 59 percent of the target population, or about 1.79 million individuals, are not considered priority groups for the following reasons:

- First, **Group 2 (older inactive with past work experience and health limitations)** is not considered a priority for intervention due to the older age and health limitations of the group, as well as its heterogeneous labor market status, which includes a large percentage of retirees. Although a significant proportion of this group (25 percent) is at risk of poverty, this proportion is not high compared to that of the target population (34 percent).

- Next, **Group 3 (low-educated, inactive women with no work experience)**, although similar to Group 8, with inactive women, is not a priority they have barriers to employment that are particularly difficult to overcome given their low education and lack of work experience. This also applies to the significant proportion of the group who are older in age. They also do not live in households with children, making them less of a priority for social inclusion policies.

- **Group 5 (well-off, relatively educated (early) retirees)**, like the name implies, is made up of relatively well-off individuals who declare themselves as retired. While it would be beneficial to delay retirement for an aging population and integrate a higher percentage of older workers into the labor market, Greece’s current low employment and high unemployment rates imply that a better-off older group of individuals should not be considered a priority for activation.

- The remaining two groups, **Group 6 (rural middle-aged in unstable jobs)** and **Group 7 (urban middle-aged part-time workers)** are not considered as priorities for activation due to their working status. If Greece had more favorable labor market conditions, interventions addressing underemployment might be considered for these two groups.

There are important differences between the two groups of long-term unemployed individuals that have been identified for prioritization (Groups 1 and 4), the most salient of which are related to age and work experience. Group 1 is mainly middle aged, with an average age of 41. Group 4, on the other hand, comprises younger individuals, with an average age of 26. Forty-two percent of Group 4 is made up of individuals who are typically designated as “young,” i.e., younger than 25 years old. Another 46 percent are between the ages of 25 and 29, an age group that is often also considered “young.” What also separates this group from Group 1 is the fact that 65 percent have never worked before (versus just 6 percent of Group 1). Thus, almost all members of Group 4 (96 percent) also have low relative work experience, meaning that they have worked for less than 60 percent of their potential working life.

Although Group 4 faces a significant work experience barrier, it is noteworthy that a significant proportion of this group has tertiary education, making it one of the most educated groups that were identified. One third of Group 4 has tertiary education, versus 22 percent in Group 1. Likewise, at the other end of the spectrum, only 15 percent of Group 4 have not finished upper secondary, versus 26 percent of Group 1. Nonetheless, it is important to keep in mind that the majority (66 percent) do not have a tertiary education, placing them at a disadvantage in what has become an increasingly tight labor market. Together with no work
experience, most of the members of Group 4 face significant capabilities employment barriers that are likely to compound each other.

**Group 1 and Group 4 also differ in terms of income.** Although hardly any members of either group face a high earnings-replacement barrier, the groups differ with respect to the high non-labor income barrier. This barrier is more prevalent with Group 4, at 30 percent (versus 16 percent of Group 1). Close to one-third of Group 4 thus faces possible disincentives to work due to other available household income, versus just one-sixth of Group 1. Among Group 1, 59 percent are married, and 35 percent of the group has a working spouse or partner. However, almost all the members in Group 4 have never been married and they have not yet left the home of their parents. The members of Group 4 are thus more likely to have at least one person working in their household; however, given that the working person is likely to be a parent (as opposed to a spouse or partner), they may be less susceptible to disincentives to work due to the availability of household income irrespective of their work effort. Nonetheless, it is noteworthy that at the time of the interview, 68 percent of Group 4 reported to be actively searching for a job, versus 89 percent of Group 1. A lower job search rate among Group 4 may signal that finding a job is not as urgently needed when there is income to fall back on. Importantly, Group 1 is particularly at risk of poverty: 47 percent had incomes below the at-risk-of-poverty line, and 44 percent lived in severe material deprivation. Among Group 4, poverty is less prevalent, although a significant proportion is nonetheless deprived (38 percent are at-risk-of-poverty and 35 percent live in severe material deprivation).

**Some of the other differences between the two groups of the long-term unemployed possibly reflect gender related barriers or labor market choices.** Group 1 is composed of more females (57 percent) and Group 4 has more males (61 percent). One possible explanation for why Group 4 is more male is that many women who are young and out of work do not declare themselves as unemployed; instead, many have children and are engaged in domestic activities and are thus found in Group 8. It is important to point out that 12 percent of Group 1 is also young (ages 18 to 29), and the great majority (74 percent) of youth in Group 1 are women. Caregiving responsibilities are not an important barrier faced by either of these two groups. This may be expected, given that these two groups are made up of individuals who are unemployed.

**Group 8 (stay-at-home married mothers with caregiving responsibilities) is analyzed on its own due to its inactive status.** At 6 percent of the target population, this group represents about 174,000 women. These women are young and middle aged (35 percent are 18 to 29; 56 percent are 30 to 44, with an average age of 33) and for the most part, they are out of the labor force and engaged in domestic tasks (although 17 percent do report unemployment as their main activity during the reference period and 23 percent were actively searching for a job at the time of the interview).

What distinguishes this group the most from the other seven is the presence of a caregiving responsibilities barrier (78 percent). This barrier is due to the presence of children (95 percent have children younger than 13 in the household; 63 percent children younger than 6; and 36 percent children younger than 3). Only about half of these women live in households in which all children younger than 13 are in formal childcare. On the other hand, given their younger age, could perhaps participate in the labor force if given the opportunity and granted access to childcare. Although these women have no recent work experience and 78 percent have low relative work experience, 50 percent have worked before, signaling that a large percentage may be taking time off from working due to the presence of young children. Although their absence from the labor force may be only temporary, the longer they remain out of work, the more difficult it will be to become employed as their skills atrophy and their contacts in the work force start to dwindle. It is critical to note that among the 47 percent with no recent work experience who have worked in the past, 58 percent have low relative work experience. Regarding the education barrier, only 16 percent have a tertiary education; thus, combined with a low relative work experience, a significant proportion may have difficulty finding employment in today's labor market.

Women in Group 8 do not have health limitations, and, although they tend to be married and have working spouses, only 19 percent have non-labor income that is high enough to provide a disincentive to work. Forty-two percent of this group are at risk of poverty and 36 percent live in severe material deprivation; both proportions are high relative to the target population. The presence of children among this group implies that active inclusion policies aimed toward these women could also help mitigate the effects of child poverty. Finally, it is significant that 35 percent of the members of this group are migrants. Their migrant status may also place
them at a disadvantage in the labor market due to possible language barriers; migrants in this group also have a much lower prevalence of tertiary education (only 6 percent).
Table 4: Employment barriers and demographic and socioeconomic characteristics of priority groups

<table>
<thead>
<tr>
<th>Group size</th>
<th>Group 1: Low-income, middle-aged long-term unemployed, with work experience</th>
<th>Group 4: Relatively educated, long-term unemployed, single NEETs</th>
<th>Group 8: Stay-at-home married mothers with caregiving responsibilities</th>
<th>Target pop.</th>
<th>Reference pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group size</td>
<td>Percent of target population</td>
<td>Thousands of individuals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment barriers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capabilities barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Low education</td>
<td>78</td>
<td>66</td>
<td>84</td>
<td>81</td>
<td>72</td>
</tr>
<tr>
<td>2 - Caregiving responsibilities</td>
<td>18</td>
<td>3</td>
<td>75</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>3 - Health limitations</td>
<td>12</td>
<td>8</td>
<td>2</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>4 - Low relative work experience (WE)</td>
<td>53</td>
<td>96</td>
<td>78</td>
<td>57</td>
<td>36</td>
</tr>
<tr>
<td>5 - No recent WE - Has worked in the past</td>
<td>92</td>
<td>19</td>
<td>47</td>
<td>59</td>
<td>29</td>
</tr>
<tr>
<td>5 - No recent WE - Has never worked</td>
<td>6</td>
<td>65</td>
<td>50</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td>Incentives barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 - High non-labor income</td>
<td>16</td>
<td>30</td>
<td>19</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>7 - High earnings replacement (benefits)</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Opportunity barrier</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 - Scarce employment opportunities</td>
<td>94</td>
<td>99</td>
<td>75</td>
<td>45</td>
<td>34</td>
</tr>
</tbody>
</table>

Demographic and socioeconomic characteristics:

<table>
<thead>
<tr>
<th>Group 1: Low-income, middle-aged long-term unemployed, with work experience</th>
<th>Group 4: Relatively educated, long-term unemployed, single NEETs</th>
<th>Group 8: Stay-at-home married mothers with caregiving responsibilities</th>
<th>Target pop.</th>
<th>Reference pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women*</td>
<td>57</td>
<td>39</td>
<td>98</td>
<td>63</td>
</tr>
<tr>
<td>Children younger than 12 in household*</td>
<td>29</td>
<td>6</td>
<td>95</td>
<td>22</td>
</tr>
<tr>
<td>Age group*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24 years</td>
<td>5</td>
<td>42</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>25-29 years</td>
<td>8</td>
<td>46</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>30-44 years</td>
<td>53</td>
<td>11</td>
<td>56</td>
<td>29</td>
</tr>
<tr>
<td>45-54 years</td>
<td>22</td>
<td>1</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td>55-59 years</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>60-64 years</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Average age</td>
<td>41</td>
<td>26</td>
<td>33</td>
<td>45</td>
</tr>
<tr>
<td>Main activity during the reference period*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Unemployed</td>
<td>99</td>
<td>91</td>
<td>17</td>
<td>44</td>
</tr>
<tr>
<td>Retired</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Domestic tasks</td>
<td>0</td>
<td>0</td>
<td>78</td>
<td>25</td>
</tr>
<tr>
<td>Other inactive or disabled</td>
<td>0</td>
<td>8</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Degree of urbanization*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Densely populated</td>
<td>46</td>
<td>44</td>
<td>45</td>
<td>40</td>
</tr>
<tr>
<td>Intermediate</td>
<td>27</td>
<td>25</td>
<td>35</td>
<td>24</td>
</tr>
<tr>
<td>Thinly populated</td>
<td>27</td>
<td>31</td>
<td>20</td>
<td>37</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern Greece</td>
<td>32</td>
<td>32</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>Central Greece</td>
<td>18</td>
<td>22</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Attica</td>
<td>43</td>
<td>40</td>
<td>41</td>
<td>37</td>
</tr>
<tr>
<td>Aegean Islands, Crete</td>
<td>7</td>
<td>7</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Target population category</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out of work</td>
<td>95</td>
<td>83</td>
<td>96</td>
<td>84</td>
</tr>
<tr>
<td>Unstable jobs</td>
<td>5</td>
<td>17</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Restricted hours</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Near-zero income</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Main activity at the time of interview
### Portraits of Labor Market Exclusion 2.0

**Group 1: Low-income, middle-aged long-term unemployed, with work experience**

<table>
<thead>
<tr>
<th>Category</th>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>2</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Unemployed</td>
<td>97</td>
<td>80</td>
<td>18</td>
</tr>
<tr>
<td>Retired</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Domestic tasks</td>
<td>0</td>
<td>0</td>
<td>75</td>
</tr>
<tr>
<td>Other inactive or disabled</td>
<td>0</td>
<td>9</td>
<td>4</td>
</tr>
</tbody>
</table>

### Months in unemployment

<table>
<thead>
<tr>
<th>Duration</th>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero months</td>
<td>1</td>
<td>7</td>
<td>81</td>
</tr>
<tr>
<td>12 or more</td>
<td>95</td>
<td>79</td>
<td>15</td>
</tr>
</tbody>
</table>

### Actively searching for a job at time of interview

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>68</td>
<td>23</td>
</tr>
</tbody>
</table>

### At risk of poverty (60% of median income)

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>38</td>
<td>42</td>
</tr>
</tbody>
</table>

### At risk of poverty (40% of median income)

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>23</td>
<td>27</td>
</tr>
</tbody>
</table>

### Severe material deprivation

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>35</td>
<td>36</td>
</tr>
</tbody>
</table>

### Income quintile

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorest</td>
<td>45</td>
<td>36</td>
</tr>
<tr>
<td>2</td>
<td>26</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Richest</td>
<td>5</td>
<td>11</td>
</tr>
</tbody>
</table>

### Years of work experience**

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>6</td>
<td>65</td>
</tr>
<tr>
<td>1 to 5</td>
<td>24</td>
<td>31</td>
</tr>
<tr>
<td>6 to 10</td>
<td>22</td>
<td>3</td>
</tr>
<tr>
<td>11 to 30</td>
<td>42</td>
<td>1</td>
</tr>
<tr>
<td>More than 30</td>
<td>7</td>
<td>0</td>
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</tbody>
</table>

### Average years of work experience**

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>3</td>
<td>8</td>
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</tbody>
</table>

### Education level

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary or less</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Upper secondary</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>Post-secondary</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Tertiary</td>
<td>22</td>
<td>34</td>
</tr>
</tbody>
</table>

### Severe limitations in daily activities

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

### At least one other household member 25 & older working

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>63</td>
<td>82</td>
</tr>
</tbody>
</table>

### Elderly in the household

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>20</td>
<td>4</td>
</tr>
</tbody>
</table>

### Children younger than 6 in household

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>3</td>
<td>63</td>
</tr>
</tbody>
</table>

### Children younger than 3 in household

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>2</td>
<td>36</td>
</tr>
</tbody>
</table>

### Children younger than 13 in formal childcare

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Some</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>All</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>NA</td>
<td>71</td>
<td>94</td>
</tr>
</tbody>
</table>

### Household type

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>One person</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Single parent</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2+ adults, 0 children</td>
<td>50</td>
<td>63</td>
</tr>
<tr>
<td>2+ adults, 1 child</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>2+ adults, 2+ children</td>
<td>32</td>
<td>29</td>
</tr>
</tbody>
</table>

### Average household size

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4</td>
<td>3.8</td>
<td>4.1</td>
</tr>
</tbody>
</table>

### Live with parents

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>89</td>
<td>7</td>
</tr>
</tbody>
</table>

### Marital status

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>59</td>
<td>5</td>
</tr>
<tr>
<td>Never married</td>
<td>33</td>
<td>95</td>
</tr>
<tr>
<td>Divorced/separated/widow/er</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

### Labor market status of spouse/partner

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 4</th>
<th>Group 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target pop.</td>
<td>12</td>
<td>54</td>
</tr>
<tr>
<td>Reference pop.</td>
<td>39</td>
<td>22</td>
</tr>
</tbody>
</table>
### Portraits of Labor Market Exclusion 2.0

<table>
<thead>
<tr>
<th>Group 1: Low-income, middle-aged long-term unemployed, with work experience</th>
<th>Group 4: Relatively educated, long-term unemployed, single NEETs</th>
<th>Group 8: Stay-at-home married mothers with caregiving responsibilities</th>
<th>Target pop.</th>
<th>Reference pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working</td>
<td>35</td>
<td>4</td>
<td>76</td>
<td>33</td>
</tr>
<tr>
<td>Unemployed</td>
<td>16</td>
<td>1</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Retired</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Unfit to work</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Domestic tasks</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Other inactive</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No spouse/partner</td>
<td>39</td>
<td>94</td>
<td>8</td>
<td>34</td>
</tr>
</tbody>
</table>

### Migrant

| Owner | 52 | 57 | 44 | 61 | 57 |
| Mortgage | 15 | 15 | 10 | 13 | 14 |
| Tenant | 27 | 23 | 40 | 21 | 23 |
| Free | 6 | 5 | 6 | 5 | 5 |

### Average annual value (€)

- **Group 1:**
  - Receives family benefits: 25
  - Average annual value: 1,351
  - Receives social exclusion n.e.c. benefits: 6
  - Average annual value: 1,855
  - Receives unemployment benefits: 11
  - Average annual value: 1,275
  - Receives old-age benefits: 0
  - Average annual value: 3,325
  - Receives survivor benefits: 1
  - Average annual value: 14,129
  - Receives sickness benefits: 0.2
  - Average annual value: 7,377
  - Receives any social benefits: 39
  - Average annual value: 5,522

- **Group 4:**
  - Labor: 9,213
  - Other: 1,098
  - Benefits: 4,818

- **Group 8:**
  - Labor: 12,496
  - Other: 1,159
  - Benefits: 7,274

### Notes:

- This table draws on the summary data provided in Annex 4. Color shadings identify categories with high (darker) frequencies. See Section 3 for an explanation of the indicators. Only categories depicting barriers to employment are included; complementary categories are omitted. Income quintiles are for the entire population. Housing benefits are not included because very few households report receiving said benefits. Months in unemployment refers to the reference period.

- *Included in the LCA model as active covariates. A more aggregated version of the age groups variable was included in the model.

- **Refers only to individuals who have worked before.

- ***Averages across all observations.

- †Only includes non-zero observations.

*Source: World Bank staff calculations based on ELSTAT EU-SILC 2014*
6. Policies and measures targeting the employment barriers of priority groups

6.1 Framework and approach

The identified groups face multiple barriers simultaneously; hence, they require a tailored mix of services to improve their employability. The menu of programs/services to address the wide ranging employment barriers falls into three main categories: (i) employment support, (ii) social services, and (iii) social benefits (with the appropriate design elements). These tools support and incentivize individuals’ efforts to search for and find jobs, participate productively in society, and improve self-sufficiency.

The activation and employment support programs and policies (AESP) relevant for the identified priority groups are reviewed below, paying special attention to programs congruent with the identified employment barriers. More specifically, based on the organizing framework presented in Figure 13, we review programs that address—either solely or in combination with other programs—work-related capability barriers (skills and caregiving responsibilities). In addition, we consider whether existing programs address the needs of the relevant cross-cutting groups such as youth, women, and long-term unemployed.

Figure 13: Linkages between employment barriers and AESPs

![Image](image_url)

Source: Elaborated by World Bank staff.

The capacity and adequacy of the existing menu of services/programs are analyzed next. First, we present a broad overview of existing AESPs and the policy environment, followed by additional details on active labor market programs and their broad capacity and adequacy. We then contrast the needs of the selected priority groups based on their barriers, and explore the capacity and adequacy of existing services to deliver the right package of support to help them find employment. This allows us to assess any gaps and determine potential policy directions.

6.2 Overview of activation and employment support programs and policies

6.2.1 Institutional and policy context

Overall, a range of activation and employment support programs/policies exist in Greece, but their effectiveness is impaired by fragmentation; limited coverage; the lack of an overall strategy; lack of human and financial resources; and gaps in the supply, accessibility, and delivery. The main
programs/policies examined include: (i) social benefits (cash and in kind); (ii) social services; and (iii) employment support: passive and active labor market measures with particular focus on employment support programs. Greece has a range of policies and programs in place in all three domains; however, the country is still lacking an integrated approach to address social and labor market exclusion. Although significant steps were taken in the past few years to strengthen support to the most vulnerable, fragmentation in all three policy dimensions persists, and resulting gaps occur either in the coverage, accessibility, or the coordination of services. For instance, existing social assistance benefits, with the exception of the newly implemented guaranteed minimum income program, while offering some protection, are not necessarily effective in linking the recipients with the labor market. Social services do not appear to have adequate coverage and have some gaps in certain areas such as childcare. Although several employment support programs are available, they are not available on a continuous basis, there are potential issues in the targeting, coverage, and effectiveness of the measures that are in place, an overall monitoring and evaluation system is lacking, and public employment services are constrained in their capacity to deliver effective services.

Until recently, the Greek social protection system was largely geared towards social insurance and contributory benefits, along with a scattered variety of cash social benefits and allowances. These social benefits were of low generosity and there was an increased reliance on informal safety nets and family networks in the rapidly deteriorating economic environment of the last five to eight years. However, Greece introduced the first phase of a means-tested universal guaranteed income scheme (GMI), Social Solidarity Income Program, in July 2016, followed by the nationwide introduction in February 2017. This program combines three elements: (i) income support; (ii) links to complementary social services including counseling, health care, social care, and access to subsidized utilities; and (iii) links to activation services including access to active labor market programs (ALMPs) to promote labor market participation. The rollout is ongoing with applications accepted online or at municipal offices while community centers are being set up to simultaneously enroll individuals and provide counseling services.

Over the last decade, there has been an increase in provision of public social services however, there are still visible gaps in their accessibility and affordability. Indeed, the “reconciliation of family and professional life programme” supported by the European Social Fund (ESF), has facilitated an increase in the number of childcare centers, all-day kindergartens, nursery schools, and creative children’s centers. In addition, the country has also increased its services to dependent household members, including the elderly and persons with disabilities, in the form of day care centers, and home help; these supports, which were mostly financed by the European Social Fund, have helped facilitate women’s entry/return into the labor market. Yet, considerable gaps still exist in the provision of social services by the different levels of central, regional, and local government, as well as by the private and the non-governmental sectors. Moreover, social services is characterized by uneven development with respect to organization, personnel, and funding. Rural areas in Greece continue to have a greater deficit in social services compared to urban areas, especially in terms of social infrastructure and human resources capacity (EC, 2013).

Plans to improve the provision of public employment services by the Manpower Employment Organization (OAED) are at an advanced stage but most are not yet implemented. Recent efforts are underway to modernize the OAED’s business model under an agreement with (and support from) the European Commission and three European public employment services (France and Germany) (ENPES, 2016). These improvements aim to: (i) support new groups of entitled beneficiaries; (ii) improve services to jobseekers and employers; (iii) introduce customer prioritization and service segmentation; (iv) improve the design of ALMPs; and (v) introduce more automation and reliance on diverse service delivery channels. Planned improvements include: the reorganization of local employment offices with the new role for employment counselors, establishment of a large business unit, a national call center, and an online portal among others. Most planned improvements are at an early stage, with the hiring of a new cadre of employment counselors and introduction of a new profiling methodology to segment jobseekers more advanced in terms of design, however are not yet implemented.

Currently, the functioning of OAED still falls short of the desirable level of performance. In the current context of very high unemployment and the inadequacy of services and capacity, it is very difficult for OAED to

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17 It should be noted that Guaranteed Minimum Income Program is an exception as the third pillar (i.e. activation strategy) is being envisaged, but is still under development and not yet implemented.
attend to the needs of the vulnerable. In particular, the needs of the long-term unemployed who have been out of work for extended periods of time but are still able-bodied and could probably participate in the labor market with the right kind of support, cannot be fully addressed. Shortfalls in performance are partly because OAED does not have proper and adequate resources (financial and human). While the policies are in place, they are in general ad-hoc, and are linked to specific, time-bound calls for proposals funded by European Social Funds (ESF). This ad-hoc provision of ALMPs (i.e. driven by calls limiting availability on an ongoing basis) is a major constraint in attending to the needs of the unemployed.

A labor market diagnosis mechanism was established to provide reliable and systematic information on trends in economic sectors, but it is not yet fully utilized in labor market policy. The diagnosis mechanism was established by the Ministry of Labor, Social Solidarity and Social Insurance in 2015, and has assessed trends\(^{18}\) on economic sectors at a fairly disaggregated level (i.e. in 492 occupational subcategories), with a view to identify and quantify labor market dynamism, bi-annually since then. Establishing this mechanism is a significant step toward gaining an improved understanding of the labor demand. This can then be utilized for labor market policy and PES services, especially to re-orient the resources to relevant employment support programs and adjust their design to ensure that the required skills are present to meet the demand in dynamic sector and occupations. Although some broad results seem to be used to design training programs (e.g. to identify sectors of training), the full utilization of this tool for labor market policy is not yet in place.

Although there are efforts to improve the coordination between employment, social welfare, and social service agencies, actual collaboration on the ground still remains limited. Under the development of the third pillar for guaranteed minimum income program, to establishing this collaboration through data exchange between the program and employment offices is being explored. However, trying to activate or integrate young people in particular, primarily through the efforts of employment offices and limited active labor market measures and job search assistance naturally falls short. Collaboration between employment offices, social welfare offices, and educational and health institutions will be extremely important for broader labor market integration.

Case management and outreach by social workers to vulnerable families and individuals remains underdeveloped and therefore challenging in Greece due to the lack of an adequate field network of welfare offices. Considering the capacity constraints and coordination issues between municipal social welfare and local employment offices, it is likely that most long-term unemployed and other hard-to-employ groups do not get individualized and adequate attention. Therefore, childcare, long-term care, or specific coaching and training needs of these populations remain largely unaddressed. Activation policies need to focus on improving these individuals’ access to social care services and inclusion policies. Linking eligibility for social assistance and registration to the public employment services, which is currently under development for GMI beneficiaries, could help activate social assistance recipients. There are plans to set up community centers, funded by ESF, which are expected to be operational throughout the country later in 2017. These community centers will serve as a one-stop-shop for social welfare services at the municipal level and will be the first point of contact between citizens and the social protection system.

### 6.2.2 Overview of Active Labor Market Programs

OAED runs several active labor market programs; however, they tend to be scattered, driven by (specific, time-bound) call of funds and thus are not available on a continuous basis. Programs with OAED linkages include typical active labor market programs such as training and wage subsidies, as well as those run by municipalities\(^{19}\). However, the programs do not follow a predictable path (likely due to them being driven by calls\(^{20}\) and lack of a coherent employment strategy), and thus limit OAED’s ability to plan ahead and place jobseekers continuously based on needs. As such, the specific programs, their target population, and their

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\(^{18}\) The scientific analysis for the diagnosis mechanism is undertaken by The National Institute of Labor and Human Resources in cooperation with Ministry of Labor, Social Solidarity, and Social Insurance; the Ministry of Education; regions; social partners; OAED; the Hellenic Statistical Authority; and the Ergani System. The main source of data for the diagnosis mechanism is the labor force survey (NILHR, 2016)

\(^{19}\) OAED does not have the full mapping of services/programs as there are many other programs, run outside of OAED at smaller scales and different administrative levels.

\(^{20}\) Most programs are financed by European Social Funds.
duration change frequently. Some programs that were recently launched21 include employment match ups (around 3,700 beneficiaries); traineeship programs targeted to youth (3,000 beneficiaries); employment subsidies targeted to the unemployed older than 50 years of age and 30–49 years of age (15,000 and 10,000 beneficiaries, respectively); and public works (Kinofelis) that largely targets middle-aged long-term unemployed. This public works program has a scoring system, whereby scores increase as length of unemployment and age increases, and additional scores are given for SSI recipients (with the intention of reaching around 43,000 beneficiaries).

Employment offices are hampered by significant capacity constraints, especially given the large number of unemployed individuals. New initiatives are being implemented that aim to better serve the unemployed. These include a new profiling methodology to systematically approach employment support, hiring new counselors, and other actions. Nonetheless, institutional capacity constraints — both in terms of funding and human resources in particular to implement larger scale of operations — limit program expansion and coverage. As of October 2016, around 888,000 unemployed were registered in OAED (NILHR, 2016); yet, the total number served by active measures (as of 2014, the latest year data are available) is only 100,000 (annually). Outreach to employers is also limited, and it is challenging to list job vacancies; employers seem to only offer vacancies to OAED if they will receive subsidies in return. Indeed, as of October 2016, there were around 13,000 registered vacancies at OAED, of which only 1,000 were not linked to any form of subsidy (NILHR, 2016). In this sense, not only is there a capacity constraint in terms of outreach, but OAED’s image is also likely a limiting factor. Lack of contact with the private sector also means that systematic information on the types of skills demanded in the labor market hampers the effectiveness of what could otherwise be well-targeted programs.

Spending on labor market policies, especially on active measures and services, is below the EU-28 average. In 2014, Greece spent 0.86 percent of GDP on labor market policies, including active and passive measures as well as services (see Annex 4 for classification of programs), while the EU-28 average was 1.8 percent. Active labor market policies represented 0.3 percent of GDP, which is well below most West European countries (in Denmark and Sweden they represent more than 1 percent of GDP), and also lower than the EU-28 average of 0.45 of GDP. However, Greece is above several EU member states that are under study such as Romania, Croatia, and Bulgaria. (Figure 14)

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21 As listed in OAED website.
22 Among the registered unemployed, 15 percent were 55-64 years old; 53 percent were long-term unemployed; and 47 percent had a secondary education (NILHR, 2016)
The resources dedicated to services to deliver the range of ALMPs in Greece are quite low. The share of spending on services within total ALMPs can serve as a proxy for the resources available to public employment services to administer ALMP. This spending mostly covers the expenses related to the functioning of the labor offices, which support clients during unemployment and facilitate their transition to employment. In Greece, spending on services constitutes only 4 percent of the total LMP spending (which corresponds to only 10 percent of the spending on ALMPs). Countries with well-functioning public employment services delivery systems (such as Denmark and the Netherlands) dedicate a much larger proportion of spending toward the public employment services (greater than 50 percent of total ALMP spending); the average spending on services is 45 percent of the average ALMP spending in EU-28.

Within the range of ALMPs provided by OAED23, the most dominant categories are ‘training’ and ‘direct job creation; public works.’ These two ALMP categories (see Annex 5 for the Eurostat classification) represent more than two thirds of total ALMP spending in Greece. Among total labor market expenditures, ‘training’ programs represent as much as 15 percent, while ‘direct job creation; public works’ represent 10 percent (Figure 15). Similarly, the number of beneficiaries for training and public works programs represent more than 80 percent of the total number of ALMP beneficiaries (Figure 16). The training programs potentially act as income support as a training allowance of roughly Euro 6/hour (a non-negligible amount- in fact higher than the minimum wage on an hourly basis) is provided. The expansion of training programs is partly due to deregulation of the sector and expansion of training providers. Under consideration is a regulation to ensure training quality and to orient training toward labor market needs, but no steps have been taken yet. A snapshot of the main programs within each category is summarized in Box 2.

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23 Not including the programs provided outside of OAED.
Figure 15. Detailed composition of labor market programs, in percentage of total labor market expenditure, 2014

Source: Eurostat.

Note: Categories used are based on Eurostat definitions (Annex 4)
Box 3. Snapshot of active labor market programs in Greece

Training programs. Typically, these programs are implemented through vouchers where beneficiaries choose their certified training provider. They combine classroom and on-the-job training. Many are targeted to unemployed youth and are co-financed by the Youth Employment Initiative (YEI). They focus on a variety of topics, such as basic information communications technology (ICT) training, and sustainable environment management (i.e. green professions). Training programs are designed to reskill former employees of certain sectors (e.g. trade, construction) to find jobs in other sectors, or to help youth enter the labor market and acquire experience. Two main training programs have been launched recently in collaboration with the labor market diagnostic mechanism which targets the broad dynamic sectors identified. The first focuses on the tourism sector and targets youth (ages 18 to 24) and is implemented in collaboration with the tourism employers. It combines classroom and on-the-job training with 8,000 beneficiaries. The second is a training voucher program targeted to adults (ages 29 to 64), which focuses on several sectors identified in the diagnostic mechanism: tourism, food supply chains, and construction. This program combines skills training and involves 80 hours of on-the-job training with 24,000 beneficiaries. The training providers are responsible for identifying employer/trainee matches for the on-the-job training.

Employment incentive programs provide hiring subsidies to private sector employers and social cooperatives to hire the registered unemployed of different age brackets (including youth and older workers), and severely disadvantaged (e.g. those unemployed for more than 24 months). There are special programs for small and medium enterprises. The usual duration of the subsidy is 9 to 12 months, and there is an obligation to retain the staff for several more months, sometimes with the possibility of extending the staff for additional time. Recently, two of these programs were launched. One is targeted to long-term unemployed older than 50 years of age (has a duration 9 months with the possibility of extension for another 9 months, and it serves 15,000 beneficiaries). The other serves long-term unemployed ages 30 to 49 (with a duration of 12 months, serving 10,000 beneficiaries).

Support for self-employment and entrepreneurship. There are a few schemes targeting the long-term unemployed, the young, and the women in sectors and professions with growth potential. "Start-Up Entrepreneurship" is an example of these programs, which provide the support for setting up an innovative enterprise in one of eight strategic fields, including ICT, energy, environment, food processing and pharmaceuticals, among others. The "Integrated Intervention To Support Female Employment Through Entrepreneurship Aid," program is another initiative to help women back into the labor market. The two age groups targeted for support are 18–35 year-olds and 36–64 year-olds. The companies participating in the initiative come from diverse sectors such as tourism, manufacturing, trade, and the service sector.

Public works programs ("Direct job creation") have been in operation since 2013. These programs target primarily those who are farthest from the labor market through a scoring system. Long-term unemployed, low income, households with multiple children, single parent households and those who reside in geographic locations with high levels of long-term unemployment are priority populations to be selected to the program. The most recently launched program (Kinofelis) intends to reach close to 43,000 beneficiaries and is implemented in collaboration with municipalities. The program undertakes small-scale infrastructure and repairs, functional upgrading of municipal services, and additional activities. The program duration is 8 months and the benefit amount is at the minimum wage. It includes an optional training component (ICT training one day/week).

Source: Eurostat LMP Qualitative Report Greece (2014) and Ministry of Labor, Solidarity, and Social Insurance
6.3 Activation and employment support policies vis-à-vis priority groups needs

This section reviews the main barriers by group and looks at their needs, and links their needs and available policies in order to evaluate potential gaps. The previous section illustrated how the barriers are interconnected with the groups’ demographic and socioeconomic characteristics. In other words, addressing the same barrier may require a different set of activation policies depending on the demographic and socioeconomic characteristics of the identified priority group. For example, while low relative work experience may be an employment barrier faced by two different groups, inactive mothers would require a different approach to mitigating this barrier than the approach used for long-term unemployed young men. It is therefore important to relate each barrier to the specificities of each group. This section focuses on identifying the needs and corresponding policies for the three priority groups selected.

The existing programs/policies do not appear to be adequately capturing the three priority groups, nor do they address their potentially simultaneous constraints. Although a range of activation and employment support policies and programs (AESPs) are available, they are fragmented, have limited coverage, are not well coordinated, and do not appear to have adequate capacity to address the needs of the selected priority groups to (re)integrate into the labor market. More importantly, the programs are not available on a continuous basis and thus are not linked to allow for a sequence or menu of programs needed to respond to the multiple barriers identified. The groups are hampered by constraints that relate to their work experience (especially the lack of recent work experience); education levels; opportunity to access jobs (which is closely linked to where they reside); and in some cases, caregiving responsibilities. The institutional capacity constraints limit adequate coverage even if we could assume that appropriate programs/services exist, with adequate information, service levels, and affordability. This assumption is probably not in line with the reality on the ground.

Group 1
Effective employment support would need to address the numerous barriers faced by group 1 including low relative recent work experience, low education, high risk of poverty and scarce job opportunities.

Building or refreshing skills, in particular through activities closely linked with employers, are the first line of support needed for this group. Although many in this group have significant previous work experience, the prevalence of long-term unemployment indicates that de-skilling is likely an important risk. Activities that focus on building or refreshing skills would help this group to acquire specific skills that are needed by employers. Examples of these are employment subsidies that are designed with an upskilling rationale to enhance the skills and employability of workers (e.g. include a training component); or training programs closely linked with employers (e.g. emphasizing on-the-job training or work-based learning). A recent European Commission study (2015) as well as evidence from the U.S. (Hendra et al., 2016) indicate that a key element of successful training and vocational programs is addressing sectoral mismatches by linking programs closely with employers to ensure their needs are met. Evidence also indicates that targeting employment subsidies to those who are more disadvantaged (e.g. long-term unemployed) tends to be more efficient. For instance, targeting the long-term unemployed (as in Belgium) has proven to be more cost effective compared to targeting the short-term unemployed (Gerfin et al., 2002), likely minimizing the deadweight loss.24

Although training and employment subsidy programs exist, it is not clear whether they reach Group 1, due to low levels of coverage, and intermittent program availability. Even though members of this group are likely to be registered as unemployed in OAED (89 percent reported actively searching for a job at the time of the interview), they may not have access to the different programs offered given limited availability of spaces in programs in a discontinuous manner. Nevertheless, certain programs are targeted to the middle-aged long-term unemployed. One is the public works program (i.e. Kinoefelis scores increase with length of unemployment, as well as with age, with additional scores given for SSI recipients, and the program intends to reach 24,500 beneficiaries). Another program involves hiring subsidies for the long-term unemployed (recent programs were launched for ages 50 and older, and is intended to reach 15,000 beneficiaries; and for those ages 30–49, it is intended to reach 10,000). However, these programs lack adequate capacity to address the needs, as all programs combined would cover only 7 percent of Group 1 (721,000 individuals), assuming that all these programs could even reach them. In addition, we do not have much information (e.g. rigorous evaluation) on the effectiveness of these programs (although the design of the hiring subsidies seems to be aligned with employers’ needs — which is an important element for effectiveness). Without an evaluation, it is harder to assess whether simply expanding coverage would address the needs. Most the existing training programs in Greece are targeted

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24 Deadweight loss occurs when subsidies are provided to a worker who would have been hired without the subsidy anyway.
to youth; thus, most of this group, which is mostly middle-aged, is not reached. Considering the risk that this group has of losing relevant job skills, it is important to keep their linkage to the labor market, ideally through employer-linked/led measures. In the absence of this measure, other measures such as public works are needed, which must be supplemented by addition measures (such as training) to minimize individuals in this group’s distance to the labor market. For instance, Croatia recently redesigned their public works program linking it with training vouchers; by participating in public works for certain hours per week, individuals would receive a training voucher for limited hours. This program recognized the need to preserve the skills of the public works participants through other measures. Finally, linking employment support to activation services for the SSI beneficiaries, which is currently being developed is important for this group because many are likely to be SSI beneficiaries, given the high share of at-risk of poverty.

**Group 4**

**Lack of work experience and relatively lower levels of education, especially considering the tight labor market, limit access to employment for youth in Group 4.** Nearly all members of this group have low relative work experience (96 percent), and two thirds have no experience (65 percent have never worked in the past, one of the highest proportions among identified groups). Their young age (88 percent are between 18 and 29), and the prevalence of unemployment (almost all (91 percent) reported being unemployed; the share who were unemployed for more than 12 months was 79 percent) also indicates that this group had trouble transitioning from school to work. A significant proportion has a tertiary level of education (34 percent), making this group among the most educated within the identified groups. Yet, due to the very constrained labor market situation in Greece, around two thirds are still considered to face a low education barrier. Most still live with their parents (89 percent). Finally, they face the scarce job opportunities barrier.

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**Job search assistance/counseling and employment subsidies may provide the needed support for this young and long-term unemployed group.** International evidence suggests that job search assistance is relatively more cost effective (compared to other ALMPs) and is proven to have large positive short-term impacts on the employment of jobseekers (Card et al., 2015). Moreover, a combination of programs provided to jobseekers sequentially or at the same time yields better results than single interventions. For example, the British New Deal program for young people, which offers a combination of job search assistance (for four months) followed by a wage subsidy to employers, shows an economically and statistically significant effect on outflows to employment among men. The program appears to have increased the probability of young men (who had been unemployed for six months) finding a job in the next four months; and it is estimated that part of this overall effect is the job subsidy element and part is the enhanced job search assistance (Blundell et al., 2004). As such, an employment support approach which combines several interventions targeting both employers and

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25 The new generation of Kinofelis also includes a (non-obligatory) training component implemented through a voucher.
jobseekers may help address the low relative work experience and the scarce job opportunities faced by the young and unemployed. In addition, skill-building activities, particularly training activities that are closely linked with employers, such as apprenticeships and on-the-job training, would help this group obtain much needed work experience. Training programs (including on-the-job training and internships), particularly those that respond to employers’ needs, can be effective if they target those lacking skills and they combine institutional training with practical training, thus mirroring a real job and workplace environment (European Commission, 2015). Similarly, recent evidence from the U.S. indicates that sectoral training (i.e. with a focus on training workers for jobs in specific industries in partnership with employers) suggests positive impacts for disadvantaged (Hendra et al., 2016). However, these programs could be more complex to implement and the degree of diligence in analyzing demand is crucial to identify the relevant industries. The meta-analysis study on youth employment programs (Kluve et al., 2016) finds that when employment programs are comprehensive — integrating multiple interventions (i.e. intermediation with other forms of support such as skills training, wage subsidy, or self-employment support) — they are more likely to succeed. The available measures targeted to unemployed youth provide some support to this group, but do not provide the full range of interventions needed. Furthermore, access may be constrained due to the current institutional framework and inadequate coverage. The programs that explicitly target unemployed youth focus mostly on training. One example is the traineeship program targeted to youth (intended to reach 3,000 beneficiaries ages 25 to 29, and 10,000 beneficiaries ages 18 to 24). At the same time, access to job search assistance/counseling (which is exacerbated by the limited institutional capacity26) and employment subsidies are limited. Furthermore, active labor market programs in Greece do not follow a predictable path. These programs are implemented through ad-hoc public calls, which limits the access as well OAED’s ability to place jobseekers in these programs continuously.

Group 8

Effective employment support would need to address numerous barriers faced by Group 8 and potentially use non-standard approaches. This group of women has the highest average number of barriers among all groups identified including childcare responsibilities, low relative work experience, recent work experience, and low relative education. 78 percent are inactive due to presence of children and domestic tasks thus, the usual ALMPs offered to the registered unemployed are out of reach. Given their younger age (average age is 33) and previous work experience, if they are provided the opportunity and access to childcare, this group could participate in the labor force. Although their absence from the labor force may be only temporary, the longer they remain out of work, the more difficult it will be to become employed. This is because their skills will atrophy and their contacts with the working world will start to dwindle. They also face scarce job opportunities.

26 The reported client (unemployed) to counsellor ratio in OAED is 3000:1, which is well above the EU average.
Considering this group’s needs, necessary first steps to enable (re)entry to the labor market would include enabling access to affordable childcare facilities, along with ensuring flexible work environments. International evidence shows that increasing childcare services — through subsidized care, tax allowances or vouchers for care, for instance — has contributed to the increase in women’s labor market participation over the last decades (OECD, 2011 and Vuri, 2016). Although the effects of childcare services may depend on context, the impact has been large in the United States, Canada, Spain (as cited in Vuri, 2016), Israel, Romania,27 and Russia28 (as cited in Todd, 2013). The policies that enable access to affordable childcare, in turn, should potentially be supplemented with an increased supply of childcare institutions to avoid capacity constraints. Given the high burden of domestic tasks for individuals in this group, appropriate measures, in the form of a supportive work environment that can accommodate family life, will help (re)integrate these women to employment. Measures might include policies that encourage telework and part-time work. Bear in mind though that very few women (slightly more than 10 percent of employed women) and men (less than 4 percent) work in part-time jobs compared to workers in the other EU countries (on average about 32 percent and 9 percent of employed men and women, respectively). This difference is a strong indication that part-time work may not available in most professions, and/or part-time wages may not be at market levels.

Access to affordable childcare is inadequate, although there have been recent efforts to expand kindergartens. The European Social Fund is supporting the provision of childcare, especially for lower income disadvantaged families29. These efforts aim to free up the lower income families’ time to search for jobs and/or engage in employment. However, the overall access to childcare has some gaps, especially for the 0–3 age group (ESPN, 2015). Considering that more than one third of the women in this group (36 percent) live with a child younger than 3 in the household, the gaps in childcare supply will limit their access to childcare. Focusing on building or refreshing skills, on assisting in obtaining work experience, and assisting with job search will also help address the needs of this group. Training programs, especially those that adequately

27 Particularly for Romania, Fong and Lockshin (2000, cited in Todd, 2013) found that government subsidies for childcare were an effective way to increase the number of working hours for mothers who work, increase the incomes of poor households, and lift some families out of poverty (although the effects of these policies are less significant for poorer households).

28 Studies in Argentina, Brazil, Guatemala, and Colombia have also shown that childcare provisions have a significant impact on labor force participation, working hours, and earnings among mothers with young children.

29 More than 80,000 children are being offered childcare services due to the support of ESF.
respond to the needs of employers, could be effective if they are targeted to those who lack skills and if they combine institutional training with practical training, which mirrors a real job and workplace environment (European Commission, 2015). Furthermore, international evidence indicates that employment subsidies that target those who reside far away from the labor market have a positive impact on their post-measure employment (Almeida et al., 2014, and European Commission, 2014). In fact, this measure can improve this group’s employability and build human capital, by providing work experience and/or specific training. The effect thus mitigates the risk of individuals returning to inactivity after the subsidized job ends.

Given the main barriers and other socioeconomic factors (in particular the large share of inactive), access to existing ALMPs is severely constrained for members of this group. The majority of these women are inactive; thus, most are not likely to be registered with OAED; only 23 percent report actively looking for a job at the time of the interview. The current set of ALMPs focuses on the registered unemployed; as such, the set of training and subsidy programs are out of reach for this group. More explicit outreach and information dissemination may be required to link these women with at least the basic services such as group counseling.

The relatively high level of poverty among members of this group, and the presence of children, suggests that a large share of these women is likely to be in contact with the social welfare offices. which could serve as a channel for their access to employment support. The social welfare offices/community centers can be utilized as the first line of access to information about basic employment support services. These offices also can provide a space for group counseling and/or basic job search assistance. The strategy of linking SSI beneficiaries with employment services, which is currently under development, would be a significant step in paving the way for access to employment support programs. While institutional capacity constraints may limit the extent of services that can be provided in the short term, outsourcing could be considered in the future to address this group’s continuing need for intensive counseling.

7. Conclusions and Policy Directions

The objective of this paper has been to provide a snapshot of what are often multiple and simultaneous constraints faced by the labor market vulnerable in Greece to inform policy decisions to address pressing needs. Policy makers have a responsibility to ensure that employment policies consider the different needs, challenges, and barriers faced by different at-risk groups in the labor market when they develop policy tools or program-level interventions. To this end, this paper categorized (using an advanced statistical clustering technique) traditionally known vulnerable groups into more distinct homogenous groups and identified their most salient employment barriers and socioeconomic characteristics. Three priority groups were then identified (Group 1-low-income, middle-aged, long-term unemployed, with work experience; Group 4-relatively educated, long-term unemployed, single NEETs; and Group 8-stay-at-home married mothers, with caregiving responsibilities), and their key relevant characteristics for activation and social inclusion policies were examined in depth. An overview assessment of the key features of ongoing (and some forthcoming) activation and employment support programs and policies (AESPs) in Greece were presented, to further explore whether and to what extent the needs of selected priority groups were met with existing programs/policies. This study primarily focuses on supply side constraints and related policies. The essential role of labor demand to achieve good employment outcomes, especially in the current Greek context, cannot be over-emphasized. Analysis of demand side constraints is crucial but remains a topic for a different study. The conclusions below should be interpreted in this light.

The analysis indicates that while there are various programs to support the target population and the identified priority groups, the programs and policies are fragmented; ad hoc in availability and remain
small in scale. The government has rolled out multiple policies and initiatives to promote employment and help support livelihoods in the aftermath of the economic crisis. However, these efforts to promote employment fall short as they are not rapidly scalable based on needs, are not available on a continuous basis, and are not linked due to financial and institutional constraints.

**Formalizing and operationalizing coordination among agencies is critical for improving service delivery to the most vulnerable populations.** Addressing multiple barriers faced by the most vulnerable out of work and marginally employed will require additional investments in administrative systems to ensure data exchange, joint outreach, assessments of individuals’ situations, and the delivery of a package of integrated services that will improve people’s chances of getting and keeping a job. The emphasis needs to be on strengthening linkages with the nascent social assistance system (e.g. Social Solidarity Income), with the objective of sharing information and tapping into the field network of community center and staff.

**Access to affordable childcare services (especially for 0–3 year olds) must be expanded.** Despite efforts to increase availability of childcare services, women still seem to have considerable difficulties reconciling childcare duties with holding a stable job. In the absence of accessible and affordable childcare, women seem to withdraw from the labor market. There is a need to develop a long-term and financially sustainable plan for provision of subsidized child care. Alternative mechanisms to improving access to childcare services could include provision of vouchers or providing larger employers with incentives to implement in-house childcare facilities.

**Despite an increased range of active labor market programs, coverage and available options are still inadequate.**³⁰ Available data and information indicate that active labor market programs have increased in terms of coverage and types of programs offered. However, coverage is still not commensurate with the needs of the out of work and the marginally employed and reflects the constrained financial resources. Although a range of programs exist, including employment subsidies, skills and on-the-job training, public works and self-employment support, the number of individuals benefiting from the programs remains limited. Even when all measures are considered, they serve only a small fraction (about 10 percent) of registered jobseekers. Furthermore, current programming does not offer a continuous sequence of programs combined with job assistance search and counselling to respond to multiple employment barriers that individuals often face.

**It is necessary to move toward a balanced menu of active labor market programs to address the diverse needs of groups who are most vulnerable to labor market conditions.** Preliminary assessment indicates that the existing range of active labor market programs are skewed toward training and public works. Moreover, the programs do not follow a predictable path (as they are driven by specific, time-bound call of funds, mostly funded by ESF), which limits OAED’s ability to plan ahead and place jobseekers continuously. Thus, there is scope to recalibrate and move toward a menu of ALMPs that are aligned with priority groups’ needs, which can first be piloted to ensure a proper transition. For instance, employment subsidies, on-the-job training, or apprenticeship programs can be targeted to long-term unemployed men and women, young people who have been out of the labor market for a while and need re-skilling and/or an opportunity to enter the labor market, to minimize substitution effects. In addition, employment subsidy programs might be modified to include part-time jobs thus encouraging more women to join the labor force. There is also scope to expand the start-up incentives/self-employment programs, which might be attractive to women who have caregiving responsibilities. Although current spending on training programs is relatively high, efficiency of spending is likely to be low. However, based on international evidence, training programs can be quite effective and yield good employment outcomes if they are well aligned with the labor market needs, well targeted, and combined with workplace training. In light of the labor demand constraints in Greece, it is also possible to introduce in the

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³⁰ Based on available information. We do not have administrative data on the composition of current ALMP beneficiaries (i.e. demographic profile and employment status). This data, which may help assess on whether the existing ALMPs are reaching the most vulnerable irrespective of the level of coverage.
ALMP menu programs that combine support for employers and jobseekers. For instance, programs that provide business expansion support (e.g. in form of business training, supply chain management) to firms can be combined with support for workforce development (e.g. in form of hiring incentives and training). Although mixed, international evidence suggests that programs directed at improving firm productivity and growth can result in improved profits and sales (McKenzie 2011, 2014).

**Extended outreach and employment promotion is necessary to reach those most in need, which focuses on inactive women and youth but also includes the older long-term unemployed.** Greece spends a very small fraction on labor market services (i.e. functioning of OAED), which makes effective service provision and outreach very difficult. Making information and counseling available to those who are inactive and who reside farther away from the labor market is a necessary first step, because these individuals are either not engaged at all or are not fully engaged in the labor market due to multiple and overlapping constraints. Access to information and counseling will help ensure that individuals who are "inactive" register with the employment offices and will also provide support for those who are actively looking for a job. Extended outreach and job search assistance cannot be achieved through employment offices only, but will require multiple channels, including social welfare centers in municipalities and community centers, and possibly temporary mobile units at these centers or alternative locations. One option might be to consider contracting out part of this function to service providers such as nongovernmental organizations (NGOs) and others, utilizing performance-based contracts.

**It is necessary to enhance intermediation services and outreach to private sector employers in order to improve OAED's image and to increase OAED's understanding of the changing labor market needs.** Despite plans to improve the provision of employment services with additional counselors, more services and outreach will be necessary to address high unemployment and significant needs of the out of work and marginally employed. And currently OAED's knowledge of labor market needs and the scope of its services still fall short. Intensive outreach to employers is necessary: (i) to build the image of OAED; (ii) to improve its understanding of the changing needs of jobseekers and employers; and (iii) to inform the content of its active labor market programs. The online vacancy collection portal needs to be expanded and updated more frequently also through regular contacts with employers.

**To adjust the targeting and design of ALMPs, it is necessary to invest in monitoring and rigorous evaluation.** Rigorous (i.e. net impact) evaluations of the ALMPs do not currently exist, which prevents policy makers from being able to distinguish the measures that are effective. The effectiveness of ALMPs, according to international evidence, varies based on context, design, and implementation features. Thus, a robust monitoring and evaluation system is key in identifying design and implementation elements that work (or not) and for making needed adjustments to improve program effectiveness. A rigorous evaluation of new design elements or programs, ideally on a pilot basis, will help inform the overall ALMP design. Additional sharing and discussion of experiences with other agencies within and outside of Europe will have benefits across countries.
References


International Monetary Fund (IMF). World Economic Outlook database.


Annex 1. Advantages and disadvantages of the EU-SILC data

The data source for the analysis is the 2014 harmonized version of the European Union Statistics of Income and Living Conditions (EU-SILC) survey provided by ELSTAT.

There are several reasons why the SILC survey was selected instead of the European Union Labor Force Surveys (EU-LFS), which are made available to researchers on a timelier basis. The SILC survey, as its full name implies, is a comprehensive survey of income and living conditions that goes beyond standard labor market surveys. In addition to several socioeconomic characteristics, the survey captures the incomes (from labor, social transfers, and other sources) as well as the (self-reported) labor market status of individuals and households throughout each month of the calendar year (reference period) prior to the interview. This level of comprehensive data is necessary for this analysis. The LFS survey would only allow us to identify the target population of this study — out of work or marginally employed — according to their labor market status at the time of the interview. Had we used this survey, we would not be able to identify the population that, although working at the time of the interview, may be marginally employed attachment due to working in unstable jobs or restricted working hours. Furthermore, because we were able to capture the full income of individuals and their households (the LFS survey would allow us to capture only earnings from labor and unemployment benefits), we are able to get a more comprehensive view of the socioeconomic status of the target population of this study, which includes income from social transfers other than unemployment benefits that may be denied or reduced when accepting a job. Moreover, the SILC survey also includes information about access to childcare, which is necessary to identify caregiving responsibilities that present a barrier to work.

Although using SILC data provides many clear benefits for the present analysis, a few shortcomings of this data collection method are worth mentioning.

First, the survey relies on self-reported labor market status, rather than a series of questions that lead to standardized classification of employment status. Thus, it is possible that some individuals who work but do not self-identify as employed because they work very few hours may report being inactive. In this sense, some of the population identified as out of work may have been mischaracterized.

Second, among old-age and family/child social transfers, the survey does not distinguish between those receiving social insurance and social assistance benefits. Being able to yield this information would enrich the analysis pertaining to how social inclusion policies are targeted to specific groups, as well as to how social benefits may affect incentives to participate in the labor market.

Another drawback of the SILC survey vis-à-vis the LFS survey is that it does not yield detailed information pertaining to educational status. EU-SILC only includes information regarding the highest International Standard Classification of Education (ISCED) level achieved. In contrast, the LFS survey includes information on vocational versus general education, field of study, and additional training or certifications. This information could be used to further inform policies aimed at addressing barriers to employment due to skills.

Another important dimension that is not captured by the SILC survey (or by the LFS survey) is ethnicity. Ethnicity can play an important role in the labor market. For example, certain groups, such as Roma people, may have more difficulty finding jobs due to discriminatory practices by employers. Information from other surveys shows that Roma are likely to be overrepresented among the population that is out of work or marginally employed, at risk of poverty, and who have a low level of education. As such, it is likely that some of the groups identified in this analysis comprise a large proportion of the Roma population. Being able to identify the Roma population would make the labor market barriers they face more visible, allowing policy makers to design evidence-based policies, and perhaps discrediting the stereotypes of Roma as being out of work or marginally employed by choice. Designing and prioritizing policies aimed including the Roma population in the labor market — a group that has historically suffered from social exclusion — is also increasingly important in the context of aging and shrinking populations.
Finally, compared to the LFS survey, the SILC survey has a small sample size, totaling 5,915 observations for Greece in 2014 when the target population of this study is taken into account. The statistical methodology used in this study benefits significantly when there is a large sample size. Large sample sizes can allow for us to identify a greater number of groups of individuals that are more homogenous within themselves and more heterogeneous among each other in terms of labor market barriers and socioeconomic characteristics. In doing so, we could design more specific tailored policies.

Source: Based on Sundaram et al. (2014).
Annex 2. Description of employment barrier indicators

Across the countries under study, eight indicators\(^{31}\) are used in order to proxy for broad measures of each of the three types of employment barriers: insufficient work-related capabilities, weak economic incentives to look for a job, and scarce employment opportunities. The definitions of the indicators are outlined below, with additional details available in the joint methodological paper (OECD and World Bank, 2016).

The following five indicators are used to capture different aspects of the **insufficient work-related capabilities** barrier:

1. **Low level of education:** In the absence of data on the cognitive, socio-emotional, or technical skills of the population, we use education as a proxy for skills. Even though education may not be a comprehensive measure of the skills that individuals bring into the labor market, a high correlation between education level and skill level is reasonable to assume. Similarly, the labor market itself uses education to screen for skills. In Greece, we consider an individual to have a low level of education if his or her education level is lower than tertiary. This cutoff was chosen to reflect the rising premium allotted to tertiary education in the Greek labor market since the economic crisis. (Greece’s cutoff is different from other countries.)

2. **Caregiving responsibilities:** Caring for children or caring for incapacitated family members, are barriers to employment, because they reduce the time that an individual can spend doing paid work. To determine whether an individual faces a caregiving-related employment barrier using EU-SILC data, we rely on information regarding (i) household members who face some unmet care need, such as young children, incapacitated family members, or elderly relatives and (ii) the availability of alternative care arrangements, namely, the use of formal childcare services\(^{32}\) and the availability of other potential caregivers in the household.

   We consider an individual as having caregiving responsibilities if he or she lives with someone who requires care\(^{33}\) and is either the only potential caregiver in the household or reports being inactive or working part time because of caregiving responsibilities. In addition, potential caregivers must be an adult (18–75 years of age) with no severe health-related limitations and must have been observed in one of the following main activities during the SILC reference period: part-time work, unemployment, retirement, domestic responsibilities, and other types of inactivity, and they may not have a permanent disability. Individuals reporting full-time activities, i.e., full-time workers, full-time students, and individuals in compulsory military service are not considered potential caregivers. By

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\(^{31}\) For Hungary, only seven indicators are used, due to data availability.

\(^{32}\) EU-SILC data only provide information regarding access to non-parental formal or informal childcare for children 12 years and younger. Information on access to formal or informal care services for incapacitated individuals 13 years and older is not available.

\(^{33}\) We consider individuals who require care to be children 12 years or younger who receive 30 or fewer hours of non-parental childcare a week. We also consider individuals of working age who (1) report severe long-lasting limitations in activities due to health problems and (2) report a permanent disability as the main reason of inactivity. Lastly, elderly household members are classified as requiring care if the condition holds and if they report being inactive during each month of SILC reference period.
definition, individuals whose main activity during the reference period is working are not considered as having caregiving responsibilities.

3. **Health limitations**: An individual is considered to have health limitations if he or she reports having some or severe self-perceived limitations in carrying out daily activities due to health conditions (physical or mental);

4. **Low relative work experience**: An individual is considered to have low relative work experience if he or she has worked less than 60 percent of his or her total potential work experience, measured as the number of years since he or she left full-time education;

5. **No recent work experience**: This indicator may represent two situations: (i) individuals who have worked in the past but have no recent work experience (i.e. have not worked for at least one month in the last semester of the reference year or at the month of the interview); and (ii) those who are not working at the time of the interview and report having never worked in the past. By definition, individuals working at the time of the interview do not face this employment barrier.

Two additional indicators are used to capture the weak economic incentives to look for a job or accept a job barrier by identifying individuals who could potentially draw on significant income independently of their own work effort:

6. **High non-labor income**: In this scenario, an individual’s total household income (excluding income from the individual’s work-related activities) is more than 1.6 times higher than the median value among the population of working age.\(^\text{34}\)

7. **High earnings-replacement benefits**: This indicator captures possible financial disincentives to work that are based on the extent of benefit reductions that an individual is likely to experience if he or she engages in full-time employment. The indicator is constructed using the ratio between the amount of earnings-replacement benefits received at the individual level and the own shadow income or reservation wage.\(^\text{35}\) The following individual earnings-replacement benefits are considered, as grouped by the EU-SILC survey: unemployment benefits, old-age benefits received before the statutory retirement age, survivor benefits, sickness benefits, disability benefits, and full-time education-related allowances. The adult-per-capita amounts of family/children related allowances and social exclusion not elsewhere classified\(^\text{36}\) — granted at the household level according to EU-SILC data — are also considered, assuming that at least part of these benefits would be withdrawn if the individuals increased their own labor supply. An individual is considered to have high earnings-replacement benefits if the value of the benefits taken into

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\(^{34}\) Specifically, we use the EU-SILC variable ‘gross household income’ (which includes pre-tax income from labor and capital plus government transfers) minus the person of interest’s own income, which is dependent on the person’s own work efforts (i.e., employment income and earnings-replacement benefits, such as unemployment benefits) and minus a share, proportional to the number of adults in the household, of social transfers awarded at the household level (for instance, social assistance or rent allowances). The final indicator is the difference between the total gross household income and the own labor-market contribution as defined above, divided by the Eurostat equivalence scale and discretized in two categories. The individuals with high financial work disincentives are those with a value of the indicator above 1.6 times the median of the resulting variable in the reference population; the remainder in the target population are characterized as having no or low financial work disincentives.

\(^{35}\) See OECD and World Bank, 2016 for details on how the reservation wage is calculated.

\(^{36}\) Housing benefits are not included because no households in the 2013 EU-SILC survey reported that they received these benefits.
consideration represents more than 60 percent of their estimated potential earnings in work (i.e., shadow income or reservation wage).

Finally, one indicator is used to capture the scarce employment opportunities barrier:

8. Scarce employment opportunities: In general, this employment barrier relates to demand-related constraints in the respective labor market segment. Although a number of indicators of labor demand exist at the aggregate or semi-aggregate level, capturing the scarcity of job opportunities at the micro-level would require the ability to describe the availability of vacancies in the labor-market segment that are relevant for each individual given his or her skills set and job market characteristics. This type of information is unavailable in EU-SILC data.

In order to proxy individuals facing scarce job opportunities, we estimate the risk of demand-side constraints in standard labor-market segments using a regression including age, gender, education level, degree of urbanization, region (at the NUTS (Nomenclature of Territorial Units for Statistics) 1 level), and migrant status as independent variables and being long-term unemployed or involuntarily working part-time as the dependent variable. In this way, we can calculate different risks depending not only on the geographical location but also on the combination of other observable characteristics within the same geographical area. The estimated parameters are then used to predict at the local level the risk of being long-term unemployed or involuntarily working part time conditional on individual circumstances. Importantly, the estimated risk will depend on the empirically observed relation between covariates included in the regression model and the variable describing labor-market tightness. We consider an individual to have scarce employment opportunities if his or her estimated risk of being long-term unemployed or involuntarily working part time is 1.6 times the median value. It is important to note, however, that the scarce employment opportunities indicator may underestimate the risk of becoming long-term unemployed or involuntarily working part-time among individuals who are inactive if they were to undertake job search. This is because many inactive individuals may not resemble the long-term unemployed and involuntary part-time workers in terms of the characteristics included in the regression model. However, these characteristics, which have been chosen because of their impact on the probability of employment, may at the same time differ significantly from those of the employed. This is an important weakness of this indicator that should be borne in mind.
Annex 3: Latent class analysis model selection for Greece

A latent class model does not automatically provide an estimate of the optimal number of latent groups of individuals. Instead, models with different numbers of classes must first be estimated sequentially and the optimal model is then chosen based on a series of statistical criteria. The model selection process starts with the definition of a baseline model (Step 1). In this case, the baseline model has been defined based on a set of eight indicators representing the three main types of employment barriers that are to be used as the main drivers for segmenting individuals into groups. Under Step 2, the model with the optimal number of classes is selected, primarily based on the goodness-of-fit statistics and classification-error statistics. Next, Step 3 examines mis-specification issues, mostly associated with the violation of the Local Independence Assumption (LIA) (see Box 9 of OECD and World Bank, 2016). The final model is then further refined with the inclusion of the so-called active covariates under Step 4. The following paragraphs describe the step-by-step process that was used to select the final model for Greece starting with Step 2. For a more detailed explanation of the step-by-step process of model selection, refer to OECD and World Bank, 2016.

Figure A1.1 below graphically summarizes Step 2 outlined above for Greece. The blue bars show the percentage variations of the Bayesian Information Criterion (BIC, Schwartz 1978) for increasing numbers of latent groups for the baseline model; the green bars show the percentage variation of the Akaike Information Criterion (AIC; Akaike, 1987)37; and the black line shows the classification error statistics (Vermunt and Magdison, 2016).38 In general, smaller values of the BIC and AIC indicate a more optimal balance between model fit and parsimony, whereas a smaller value of the classification error statistics means that individuals are better classified into one (and only one) group. In Figure A1.1, the BIC is minimized for a model with eight classes; the AIC criterion, on the other hand, is minimized for a model with 13 classes. It must be noted that the difference between the BIC and AIC statistics depends on the different penalty that the two measures apply to the increasing goodness-of-fit: the AIC takes into account only the higher number of parameters, whereas the BIC considers also the overall sample size. Thus, in general, the BIC points to a more parsimonious specification than the AIC. When the BIC and AIC point to different numbers of classes, as is the case here, the classification error statistic provides further information for the selection of the optimal model. In this case, the classification error favors the eight-class model.

37 The BIC and the AIC are measures that capture the trade-off between the model’s ability to fit the data and the model’s parametrization: a model with a higher number of latent classes always provide a better fitting of the underlying data but at the cost of complicating the model’s structure. The BIC and the AIC summarize this trade-off into a single index, which provides guidelines for choosing between an adequate representation of the population into a finite number of sub-groups and an increasing complexity of the statistical model.

38 The classification error shows how-well the model is able to classify individuals into specific groups. To understand the meaning of the classification error index, one must keep in mind that LCA does not assign individuals to specific classes; rather, it estimates probabilities of class membership. One has therefore two options for analyzing the results: assigning individuals into a given cluster based on the highest probability of class-membership (modal assignment) or weighting each person with the related class-membership probability in the analysis of each class (proportional assignment). The classification error statistics is based on the share of individuals that are mis-classified according to the modal assignment.
Step 3: Mis-specification tests

The model selected through goodness-of-fit and classification statistics under Step 2 may not be optimal due to mis-specification issues, the most common of which is associated with violation of the LIA. This assumption shapes the mathematical specification of the statistical model and, in practice, requires the indicators to be pairwise independent within the latent groups. When this requirement is not met, the model is not able to reproduce the observed association between the indicators, at least for the indicators showing some residual within-class (local) dependency. These violations of the LIA can be best addressed modelling explicitly the local dependencies between pairs of indicators, via the so-called direct effects (Vermunt and Magdison, 2016; OECD and World Bank, 2016). The inclusion of direct effects in the model specification eliminates any residual correlation between the indicators (by construction) but it also requires repeating the model selection process from the beginning, as the new baseline model with local dependencies may lead to a different optimal number of classes.

For Greece, the eight-class model showed clear signs of mis-specification, with bivariate residuals significantly higher than 1 for several pairs of indicators. Eliminating the local dependencies through the use of direct effects points to a seven-cluster model when minimizing the BIC criterion and the classification error. However, the seven-class model shows new residual association between other pairs of indicators. The eight-class model does not show mis-specification issues and remains a favorite option for Greece.

Results are available upon request.
Step 4: Model refinements – inclusion of active covariates

In most empirical applications, the aim of latent class analysis is not just to build a classification model based on a set of indicators, but also to relate the class membership to other individual and household characteristics in order to identify specific population sub-groups of interest, such as youth and women.

To further describe the identified groups according to specific population sub-groups that are typically considered in the breakdown of common labor market statistics, we run the latent class model again, this time with covariates actively contributing to the definition of the group-membership probabilities. The inclusion of active covariates is primarily driven by the interest in specific population sub-groups that are typically considered in the breakdown of common labor market statistics. As such, different specifications of models with active covariates were estimated, including different combinations of age (three categories), gender, presence of young children, main activity during the reference period, degree of urbanization, and region at the NUTS 2 level. The choice of the active covariates also relies on practical considerations, i.e. the relevance of these categories in the policy debate on AESPs and on the degree to which it is possible for the public employment services to collect such information.

The inclusion of active covariates does produce mis-specification once again (i.e. bivariate residuals between combinations of indicators and covariates), which we, again, address by explicitly modelling the associations between indicators and covariates with direct effects (as discussed in Step 3 above).

Culminating Step 4, an eight-cluster model with the combination of active covariates and direct effects that brings the bivariate residuals down to zero and also has the lowest classification error is the final model chosen for Greece. The model includes age, gender, presence of young children, degree of urbanization, and main activity during the reference period. The model has a classification error of 12 percent. This is a significant reduction in the classification error, which was at 21 percent when no active covariates are introduced to the model. A significant reduction of the classification-error statistics in models with active covariates is the sign that, for some individuals, the employment-barrier indicators alone do not produce a clear-cut latent-class assignment and that, therefore, the covariates are playing an important role not only in improving the latent-class membership but also in shaping the main barrier profile characterizing some of the latent groups. While this does not typically affect the barrier profiles of the biggest groups (i.e. those with the biggest shares in the target population), the barrier profiles of the smallest groups could be partially shaped around the interaction between the information provided with the active covariates and the indicators.\(^{40}\)

\(^{40}\)This should be considered as an improvement with respect to a model without covariates whose indicators do not produce a clear-cut latent-class assignment for some individuals. In fact, without additional information, the allocation of these individuals into a specific latent group would be done almost at random, whereas in models with covariates the allocation of these individuals depends on the additional information provided to the latent class model and how this interact with the indicators.
# Annex 4: Characterization of latent groups among the target population in Greece

<table>
<thead>
<tr>
<th>Characteristics of latent groups (percent)</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>Target pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group size (% of target population)</td>
<td>24</td>
<td>19</td>
<td>17</td>
<td>11</td>
<td>11</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Share of individuals facing each barrier, by class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capabilities barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Low education</td>
<td>78</td>
<td>89</td>
<td>97</td>
<td>66</td>
<td>65</td>
<td>88</td>
<td>72</td>
<td>84</td>
<td>81</td>
</tr>
<tr>
<td>Caregiving responsibilities</td>
<td>18</td>
<td>15</td>
<td>11</td>
<td>3</td>
<td>5</td>
<td>12</td>
<td>13</td>
<td>75</td>
<td>16</td>
</tr>
<tr>
<td>2 - Health limitations</td>
<td>12</td>
<td>44</td>
<td>25</td>
<td>8</td>
<td>17</td>
<td>11</td>
<td>7</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>3 - Low relative work experience (WE)</td>
<td>53</td>
<td>44</td>
<td>100</td>
<td>96</td>
<td>3</td>
<td>34</td>
<td>28</td>
<td>78</td>
<td>57</td>
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<tr>
<td>No recent WE - Has worked in the past</td>
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<td>91</td>
<td>23</td>
<td>19</td>
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<td>0</td>
<td>47</td>
<td>59</td>
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<tr>
<td>No recent WE - Has never worked</td>
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<td>9</td>
<td>77</td>
<td>65</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>26</td>
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<td>Incentives barriers</td>
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<td>6 - High non-labor income</td>
<td>16</td>
<td>25</td>
<td>27</td>
<td>30</td>
<td>27</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>23</td>
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<td>7 - High earnings replacement (benefits)</td>
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<td>8 - Scarce employment opportunities</td>
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<td>7</td>
<td>99</td>
<td>0</td>
<td>4</td>
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<td>75</td>
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<td>Average number of barriers</td>
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<td>3.2</td>
<td>3.7</td>
<td>3.8</td>
<td>3.1</td>
<td>1.7</td>
<td>2.3</td>
<td>4.2</td>
<td>3.4</td>
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</table>

## Annex 4:PG

### Characteristics of latent groups (percent)

<table>
<thead>
<tr>
<th>Percent of target population</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>Target pop.</th>
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<tr>
<td>Thousands of individuals</td>
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<td>6</td>
<td>8</td>
<td>29</td>
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<td>Youth (18-29)</td>
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<td>Middle-aged (30-55)</td>
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<td>40</td>
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<td>12</td>
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<td>85</td>
<td>69</td>
<td>65</td>
<td>54</td>
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<td>Older (56-64)</td>
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<td>60</td>
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<td>70</td>
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<td>Average age</td>
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<td>55</td>
<td>51</td>
<td>26</td>
<td>57</td>
<td>44</td>
<td>38</td>
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<td>Main activity during the reference period*</td>
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<td></td>
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<td></td>
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<td>Employed</td>
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<td>72</td>
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<td>Unemployed</td>
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<td>91</td>
<td>1</td>
<td>50</td>
<td>23</td>
<td>17</td>
<td>44</td>
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<td>0</td>
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<td>Other inactive or disabled</td>
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<td>Degree of urbanization*</td>
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<td>Densely populated</td>
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<td>35</td>
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<td>44</td>
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<td>Intermediate</td>
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<td>30</td>
<td>65</td>
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</tr>
<tr>
<td>Northern Greece</td>
<td>32</td>
<td>32</td>
<td>33</td>
<td>32</td>
<td>28</td>
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<td>22</td>
</tr>
<tr>
<td>Attica</td>
<td>43</td>
<td>36</td>
<td>30</td>
<td>40</td>
<td>42</td>
<td>20</td>
<td>38</td>
<td>41</td>
<td>37</td>
</tr>
<tr>
<td>Aegean Islands, Crete</td>
<td>7</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>15</td>
<td>9</td>
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<td>9</td>
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<tr>
<td>Target population category</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out of work</td>
<td>95</td>
<td>95</td>
<td>100</td>
<td>83</td>
<td>99</td>
<td>1</td>
<td>0</td>
<td>96</td>
<td>84</td>
</tr>
<tr>
<td>Unstable jobs</td>
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<td>5</td>
<td>0</td>
<td>17</td>
<td>1</td>
<td>59</td>
<td>28</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Restricted hours</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>67</td>
<td>0</td>
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</tr>
<tr>
<td>Near-zero income</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Main activity during reference period (more disaggregated)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full time</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Employed part time</td>
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<td>0</td>
<td>0</td>
<td>7</td>
<td>51</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

---

Portraits of Labor Market Exclusion 2.0

60
Working member 25

Severe limitations in daily activities

At risk of poverty (40% of median income)

At risk of poverty (60% of median income)

Actively searching for a job at time of interview

Main activity at the time of interview

Months in unemployment

Employed

Unemployed

Retired

Domestic tasks

Other inactive

Employed

Unemployed

Retired

Domestic tasks

Other inactive or disabled

Income quintile

Poorest

2

3

4

Richest

Years of work experience**

None

1 to 5

6 to 10

11 to 30

More than 30

Average years of work experience**

Education level

Primary or less

Lower secondary

Upper secondary

Post-secondary

Tertiary

Age groups (more disaggregated)

18-24 years

25-29 years

30-44 years

45-54 years

55-59 years

60-64 years

Severe limitations in daily activities

At least one other household member 25 years and older working

Elderly in the household

Children younger than 6 in household

Children younger than 3 in household

Children younger than 13 in formal childcare

None

Portraits of Labor Market Exclusion 2.0

61
### Household Income (€)

<table>
<thead>
<tr>
<th>Group</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>Target pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>All</td>
<td>15</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>15</td>
<td>19</td>
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<td>12</td>
</tr>
<tr>
<td>NA</td>
<td>71</td>
<td>85</td>
<td>92</td>
<td>94</td>
<td>92</td>
<td>71</td>
<td>62</td>
<td>5</td>
<td>78</td>
</tr>
</tbody>
</table>

### Household Type

- **One Person**: 6, 9, 5, 2, 8, 6, 6, 0 (6)
- **Single Parent**: 1, 1, 1, 1, 1, 2, 1 (1)
- **2+ Adults, 0 Children**: 50, 64, 67, 63, 62, 44, 42 (55)
- **2+ Adults, 1 Child**: 12, 7, 8, 5, 8, 9, 13 (25)
- **2+ Adults, 2+ Children**: 32, 19, 20, 29, 21, 40, 36, 71 (71)

### Average Household Size

- 3.4, 3.0, 3.1, 3.8, 2.9, 3.6, 3.5, 4.1 (3.3)

### Live with Parents

- 31, 7, 11, 80, 4, 21, 29, 7 (25)

### Marital Status

- **Married**: 59, 78, 80, 5, 83, 70, 56, 92 (65)
- **Never Married**: 33, 8, 10, 95, 3, 22, 37, 7 (26)
- **Divorced/Separated/Widow**: 9, 14, 10, 1, 14, 8, 7, 1 (9)

### Labor Market Status of Spouse/Partner

- **Working**: 35, 28, 38, 4, 27, 46, 36, 76 (33)
- **Unemployed**: 16, 8, 7, 1, 6, 12, 12, 13 (9)
- **Retired**: 5, 30, 34, 0, 28, 5, 4, 3 (16)
- **Unfit to Work**: 1, 1, 2, 1, 0, 2, 0, 0 (1)
- **Domestic Tasks**: 4, 10, 0, 0, 22, 6, 9, 0 (6)
- **Other Inactive**: 0, 0, 0, 0, 1, 1, 0, 0 (0)
- **No Spouse/Partner**: 39, 22, 20, 94, 16, 29, 39, 8 (34)

### Migrant Status

- **Owner**: 52, 70, 74, 57, 68, 62, 49, 44 (61)
- **Mortgage**: 15, 11, 8, 15, 20, 10, 16, 10 (13)
- **Tenant**: 27, 9, 14, 14, 23, 9, 21, 31 (21)
- **Free**: 6, 6, 4, 5, 2, 6, 4, 6 (5)

### Housing Tenure

- **Receives Family Benefits**: 25, 11, 13, 15, 6, 25, 27, 50 (19)
- **Average Annual Value (€)**: 1,351, 1,473, 1,529, 1,855, 2,423, 1,509, 1,407, 1,275 (1,476)

### Average Annual Household Income (€)

**Labor**: 9,213, 8,403, 10,928, 12,496, 12,568, 12,993, 13,917, 15,675 (18,910)
**Other**: 1,098, 1,187, 864, 1,159, 1,310, 900, 713, 902 (1,048)
**Benefits**: 4,818, 9,600, 6,897, 7,274, 20,063, 3,590, 3,496, 1,834 (5,286)

### Average Annual Equivalized Household Income (€)

- 5,522, 7,669, 6,886, 6,639, 12,274, 5,764, 6,542, 5,923 (7,133)

---

**Note**: Calculations based on ELSTAT EU-SILC 2014. Color shadings identify categories with high (darker) frequencies.
Annex 5. Categorization and definitions of labor market programs based on Eurostat

Labor market programs are government initiatives that include expenditure programs but also foregone revenues (e.g. reductions in social security contributions) that aim to reduce disequilibria and improve efficiency of the labor market (Eurostat 2013).

Eurostat classifies these labor market policies in three broad categories:

1. **Labor Market Services.** This covers all services and activities of the public employment service together with any other publicly funded services for jobseekers, including their administrative costs.

2. **Active Labor Market Programs (ALMPs).** These include all interventions where the main activity of participants is “other than job-search related” and where participation usually results in a change in labor market status. With the exception of programs supporting permanent reduced working capacity, measures are usually providing a temporary support aimed at activating the unemployed, helping people move from involuntary inactivity into employment, or maintaining the jobs of persons threatened by unemployment. Since 2013, Eurostat classifies measures into 5 subcategories:
   a) training,
   b) employment incentives,
   c) supported employment and rehabilitation,
   d) direct job creation, and
   e) start up incentives.

3. **Passive Labor Market Programs.** These usually provide financial assistance to those who are out of work (through unemployment benefits) or who retired early from the labor market.

*Source: Adapted from Eurostat LMP database (Eurostat, 2013)*