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D. KATSIKAS,
D. NICOLITSAS
& T. FLØTTEN
(EDITORS)

Youth inclusion and gender equality in the Greek labour market

Trends, challenges, and lessons from the Nordic countries

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D. Katsikas, D. Nicolitsas, and T. Fløtten (Editors)

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HELLENIC FOUNDATION FOR EUROPEAN
& FOREIGN POLICY (ELIAMEP) 49,
Vassilissis Sofias Ave., 106 76 Athens, Greece
Tel: (+30) 210 7257110, Fax: (+30) 210 7257114,
e-mail: eliamep@eliamep.gr, url: www.eliamep.gr
and Fafo Institute for Labour and Social Research,
Borggata 2b, 0608 Oslo, Norway,
Tel.: (+ 47) 22088600
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THE RESEARCH TEAM



CHARALAMPOS CHRYSOMALLIDIS, Researcher
APOSTOLOS FASIANOS, 2020-21 A.G. Leventis Research Chair Post-
doctoral Research Fellow, ELIAMEP
KYRIAKOS FILINIS, Researcher
TONE FLØTTEN, Managing Director, Fafo
RAGNHILD STEEN JENSEN, Researcher, Fafo
DIMITRIS KATSIKAS, Senior Research Fellow, ELIAMEP, and As-
sistant Professor, National and Kapodistrian University
of Athens
VARVARA (BERRY) LALIOTI, Researcher
ALEXIA MITSIKOSTAS, Project Manager, ELIAMEP
DAPHNE NICOLITSAS, Assistant Professor, University of Crete
GEORGE PAGOULATOS, Director General, ELIAMEP, and Professor,
Athens University of Economics and Business
ANNE HEGE STRAND, Researcher, Fafo

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FOREWORD



This study is the outcome of the research project “Youth Employment and Gender Equality: Mobilizing human capital for sustainable growth in Greece”. The project was funded by the EEA Grants and implemented by ELIAMEP, in collaboration with the Norwegian Institute for Labour and Social Research (Fafo).

The inspiration for the project was the empirical observation that young people and women in Greece have for a long time been the least economically active categories of the population. Both groups exhibit low participation and employment rates in the labour market, and higher unemployment rates compared to older age cohorts and men respectively. The decade-long economic crisis aggravated this situation further, particularly for the young, who proved extremely vulnerable to the deterioration of the labour market conditions. Since 2020, the pandemic has been a source of new stress in the labour market.

Given the urgent need to recover the output and prosperity lost by the economic crisis but also to reform Greece’s growth model towards a more sustainable direction which emphasizes innovation and extroversion and embraces the digital and green transitions, the mobilization of human capital is of paramount importance for Greece’s economic future. Strengthening the ability of young people to access the labour market and follow a career corresponding to their qualifications and aspirations should be a priority in this effort. With this as a starting point, this study seeks to document and analyse in depth the status of young people in the Greek labour market, with an emphasis on the position of young women, with a view to identifying the main barriers to access and the pursuit of professional advancement.

In addition, an overview of youth employment and gender equality in Scandinavia is included in the study. Greece and the Scandinavian countries are in some instances contrasting cases in cross-national comparisons. At the same time, the countries share common worries, for instance when it comes to young people not in education, employment, or training. To shed light on policy choices that have improved the integration of youth and women in the labour market in Scandinavia, policy measures for education, the labour market and work-family balance are reviewed.

The ultimate objective of our research, to be completed in a second stage of the forementioned project, is to formulate appropriate policy proposals on how to facilitate the access and advancement of young people in the Greek labour market, including specific recommendations on how to overcome gender-related barriers.

Our work benefited from the exchange of views with researchers and stakeholders from Norway, in a series of online webinars. We would like to thank them for their contribution.

We would also like to thank Ioannis Konstantinidis from the University of Macedonia, for his assistance with the design and implementation of the youth survey and the analysis of its results, and Giannis Vintzilaos for his assistance with the processing of the youth survey data.

Finally, we would like to thank the EEA Grants for supporting this research, and the Norwegian Embassy in Athens for their guidance and assistance throughout the project.

Special thanks go to Alexia Mitsikostas, our superb project manager, who coordinated our efforts and kept the project on track, and of course the great team of researchers from Greece and Norway that collaborated on the project and are responsible for the study at hand.

Dimitris Katsikas and
Daphne Nicolitsas, Athens

Tone Fløtten,
Oslo

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EXECUTIVE SUMMARY



Introduction

The under-utilization of the labour potential of women and the young constitutes a major disadvantage for Greece. The integration of young people and women in the world of work contributes to their own well-being, promotes social and intergenerational cohesion, and adds valuable resources to the economy, increasing its productive capacity and growth potential.

Given the economic and social impact of the 2010s crisis, and more recently, of the pandemic, strong economic recovery along a sustainable path is a challenge of the utmost importance and urgency for Greece. To this end, mobilizing human capital needs to be a top policy priority.

In this context, this study focuses on the difficulties that young people face both in accessing the labour market and in making their first professional steps once employed. The research places emphasis on the gender dimension by exploring in more detail the difficulties faced by young women. The study also draws on the expertise of Fafo in the institutions and dynamics of the labour market in the Nordic countries, to gain from knowledge transfer and policy learning.

Principal findings

There are three structural trends that have affected the integration of youth in the Greek labour market over the past two decades:

- The population of young people in Greece has diminished over the last twenty years, due to adverse demographic trends and the emigration wave that took place during the crisis. As a result, the number of young people in the Greek labour force has declined dramatically. The decline in the participation rate has been modest and concentrated in the younger age groups (15-24), who stay in education for longer and therefore enter the labour market later in life.
- Though fewer, young people are clearly better qualified compared to past generations. The share of labour market participants whose highest credentials are from lower secondary education or below has declined, while the share of economically active tertiary education graduates has increased substantially. Moreover, during the 2010s crisis, both employment prospects and protection against unemployment improved for the better-educated youth.
- While young women continue to be less economically active than men, their share in the labour force has increased over the past twenty years. Two factors may sustain this trend: (a) young women have more educational qualifications than young men; they account for roughly 60 per cent of recent post-secondary vocational and tertiary education graduates, and (b) the increased opportunities for flexible employment after the crisis could also lead to a higher employment rate for women, as women tend to work more in part-time jobs.

Over and above these structural trends, and the impact of the crisis of the 2010s, a significant structural feature, which also affects youth's place in the labour market, is the mismatch between their educational qualifications and skills and those required by the economy. This problem relates to two other factors:

- The apparent inability of the Greek economy to absorb more highly qualified young people. Youth employment is

concentrated in sectors which are not knowledge-intensive; employment in sectors like telecommunications, manufacturing, computer programming, and engineering remains at very low levels.

- The failure to connect the educational system to the economy. Youth make inefficient educational and professional choices, opting for fields with poor professional prospects. Moreover, the design of study programmes is unresponsive to the needs of the labour market both in higher and in vocational education.

With regard to the place of young women in the labour market, despite the trend towards convergence described above, they still have substantially lower participation and employment rates and higher unemployment, long-term unemployment, and NEET rates than young men. There are two reasons for the differentiation between the sexes, which occurs after their mid-20s. First, some women exit the labour market due to family commitments. Second, the demand for female labour is lower than that of men in these age groups.

In terms of ‘in-employment’ differences, the unadjusted gender pay gap is roughly 10 per cent; when age, educational level and sector of occupation are considered, but without correcting for self-selection, this drops to 7 per cent. It also appears that the gender wage gap is narrower for more recent cohorts. Also, women find it more difficult than men to reach the higher echelons of professional hierarchy. Finally, employed women rate all types of discrimination as more important obstacles to career advancement than men. This is an indication that women experience more intensely all types of discrimination.

As documented by our survey, this situation leaves youth with the impression that they are being discriminated against due to their age, and contributes to the problems of prolonged unemployment

and labour market exit. It also contributes to the acceptance of jobs with lower qualifications or unrelated to their studies, which in turn leads some of them to a vicious cycle of low job satisfaction, lack of effort and unsatisfactory professional progress. Under these conditions, for a large part of Greece's youth, attaining their overwhelming priority, work-family life balance, seems almost impossible. It is therefore not surprising to find that almost one in three are thinking of leaving the country in the coming years.

The Nordic countries' success in integrating young people and women into the labour market has involved: (a) a holistic strategy in line with economic needs and social priorities, and (b) an array of policy tools which include *inter alia*, active labour market policies for swift school to work transition (STW), a well-established VET system, localized and targeted policies for NEETs, a well-developed childcare system, generous parental leave with fathers' quotas to encourage a more even distribution of parental leave between men and women, and the assignment of gender equality activity and reporting duties, to the state, the social partners and most importantly, to employers.

The lack of a holistic strategy, which includes a structured and significant contribution by the social partners, stands out as a significant difference between Greece and the Nordic countries, where the social partners view full employment as part of their responsibilities.

In this context, recent reforms in various aspects of the educational system and the labour market institutions, while positive overall, seem unconnected, and it is doubtful whether they will be able to have a significant impact on the integration of young men and women in the Greek labour market.

METHODOLOGY NOTE



The analysis in this study focuses on the position of the age group 15-34 in the Greek labour market. This group is not treated as uniform but divided into four subgroups: 15-19, 20-24, 25-29 and 30-34 years old. This methodological choice is justified by the distinct relation young people in different age groups have with the labour market, and therefore the different challenges they face as existing or potential labour market participants.

Thus, the 15-19 and 20-24 age groups exhibit high mobility from a labour market perspective, since most of them alternate between education and employment and often combine studying and working; therefore, their position in the labour market is often transitory. Furthermore, many of them have not yet made conscious choices about their future careers, which means that they are prepared to be employed in various jobs, not necessarily related to their qualifications. Consequently, the employment prospects of young people aged 15-19 and 20-24 -with the partial exception of vocational education and training graduates- depend to a lesser extent on their qualifications and skills, and their lack of experience does not deter employers from hiring them. This, however, means that youth in these age groups often take jobs where their qualifications and skills are not utilised.

On the other hand, the employment decisions of young people aged 25-29 and 30-34 are more strategic. Their transition from education to the labour market depends more on their qualifications and skills, as they try to find employment that is related to their studies and the career they aspire to. Moreover, many of them, particularly in the 30-34 age group, have started their own

families and more generally have assumed financial commitments. Therefore, they need to earn a living and are more prepared to compromise on some of their employment preferences rather than stay unemployed or exit the labour market. The lack of work experience affects their transition from education to the labour market to a greater extent than that of people in the younger age groups.

GLOSSARY OF KEY TERMS



Crisis refers to the sovereign debt crisis that Greece went through during the 2010s. In 2010 Greece signed a financial assistance programme. Two more programmes followed in 2012 and 2015. The country completed its third financial assistance programme in 2018.

Economic sector is defined according to the 2-digits NACE Rev.2 Statistical Classification of Economic Activities.

Educational attainment level corresponds to the highest ISCED (International Standard Classification of Education) level successfully completed by persons. The ISCED levels are divided into ISCED 0-2 (less than primary, primary, and lower secondary education), ISCED 3-4 (upper secondary and post-secondary non-tertiary education), and ICED 5+ (tertiary education).

Employed persons are those who work at least one hour per week for pay or profit or are temporarily absent from such work. The employment rate for a given age group is the number of employed persons as a percentage of the total population of the group.

Employment contract. A worker can be employed under an indefinite job-contract, when the actual duration of employment relation has not been agreed in advance, or under a limited duration job-contract (temporary employment).

Employment rate: Employed persons as a percentage of the total number of people aged 15-64 (average population during the year).

Labour force: The sum of employed and unemployed persons.

Long-term unemployment refers to persons who remain unemployed for 12 months or more.

Occupation is defined using the 2-digits codes of the International Standard Classification of Occupations (ISCO 08).

Participants in the labour force (economically active population) are the sum of employed and unemployed persons of a given age group. The labour force participation rate (activity rate) for a given age group is the sum of employed and unemployed persons as a percentage of its total population.

Unemployed persons are those who are not employed but are available to begin working immediately and they are actively seeking work. The unemployment rate for a given age group is the number of unemployed persons as a percentage of the active population (labour force) of the group.

Working time: An employed person can be a full-time or a part-time worker. In Greece, part-time worker is an employed person whose normal working hours are fewer than those of a comparable full-time worker. For the Nordic countries, the following applies: In Denmark the distinction is based on the spontaneous answers of respondents; in Norway and Sweden part-time work is determined based on whether the usual hours worked are fewer than 35, while full-time on whether the usual hours worked are 35 or more. In Sweden, this criterion is in addition applied to self-employed persons.

Young people neither in employment nor in education and training (NEETs) are persons who are not employed and not involved in further (formal or non-formal) education or training.

INTRODUCTION

Dimitris Katsikas



1.1 The Greek labour market: Key features and trends before the pandemic

This study was carried out during the pandemic. The latter posed a major challenge for economies across the world and the nature of the crisis was such that labour markets were particularly affected. Having said that, as the issues under investigation are structural in nature, we abstain from focusing on conjunctural changes brought about by the pandemic and most of the data in the report refer to the period up to 2019.

The Greek labour market has been characterized by serious structural weaknesses for decades. As a result, during the crisis, and in the context of the economic adjustment programmes implemented by successive Greek governments, the labour market became a field of major reform initiatives. The reforms targeted many of the stipulations of the previous institutional framework in the Greek labour market, widely acknowledged as rigid and ineffective (Filinis *et al.* 2018). The main objective of the reforms was to increase the employment and wage flexibility in the Greek labour market, making it more efficient and resilient, with the ultimate objective being the improvement of the economy's international competitiveness. The impact of the reforms has been mixed; studies have shown that reforms such as the relaxation of employment legislation and the reduction of labour taxation

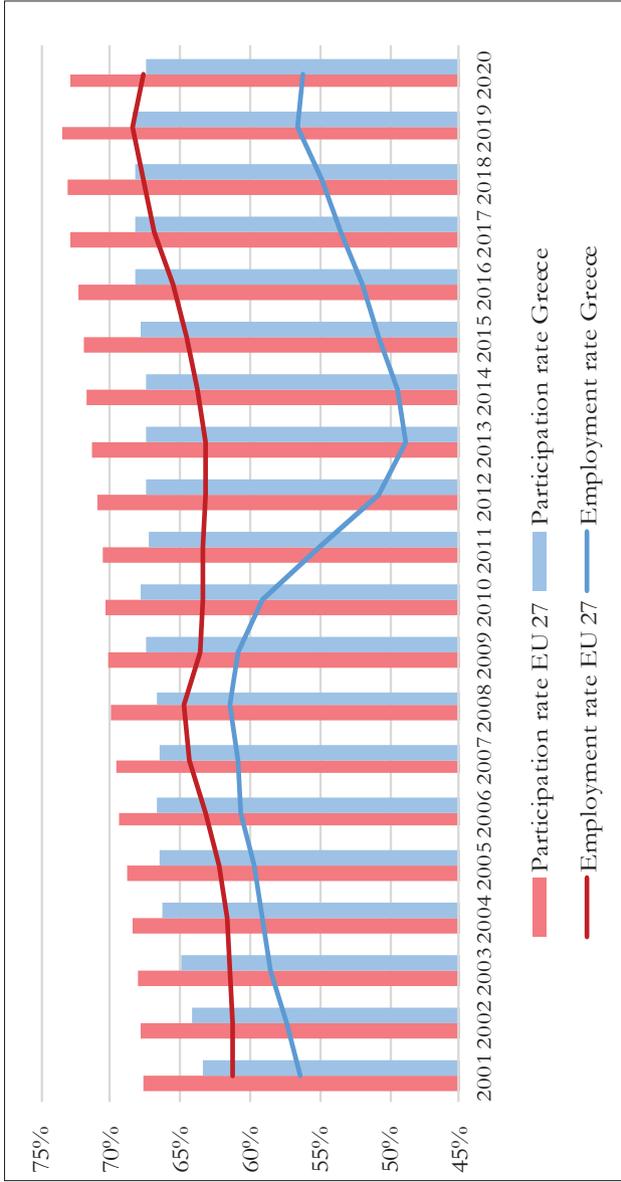
helped reduce unemployment during the crisis (Filinis and Georgakopoulos 2018); unit labour costs, which had risen faster than productivity in the pre-crisis period, declined, while employment and participation rates were positively affected (Gatopoulos *et al.* 2020). On the other hand, there has been criticism about the one-sided aspect of the reforms which increased flexibility without improving security (Tourtouris *et al.* 2020), while several of the proclaimed reform objectives, such as combatting undeclared employment and protecting the most vulnerable groups of workers, were not met (Filinis and Georgakopoulos 2018).

A definitive assessment of the reforms is difficult given the extremely adverse economic conditions of the previous decade and the outbreak of the pandemic since 2020, which disrupted once again the functioning of the labour market. Having said that, it is widely acknowledged that despite the reforms, the labour market continues to suffer from long-term structural weaknesses. More specifically, the Greek labour market is characterized by: (a) low participation and employment rates, (b) low productivity, and (c) segmentation.

1.1.1 Low participation and employment rates

Even before the crisis, the participation and employment rates in Greece were among the lowest in the EU. In 2001, the year that Greece officially joined the Eurozone, 63.3 per cent of the population aged 15-64 participated in the labour force compared to 69.3 per cent in the EU on average, while only 56.4 per cent of the population in the same age group was employed, compared to 61.3 per cent in the EU (Figure 1.1). During the 2000s both the participation and employment rates started to increase and to gradually converge towards the EU averages. The crisis halted, and in the case of employment, reversed this trend dramatically. More specifically, since 2009 the share of active population has remained relatively stable fluctuating between 67-68 per cent; still, as participation

Figure 1.1
 Participation and employment rates, 15-64 years old, Greece and the EU

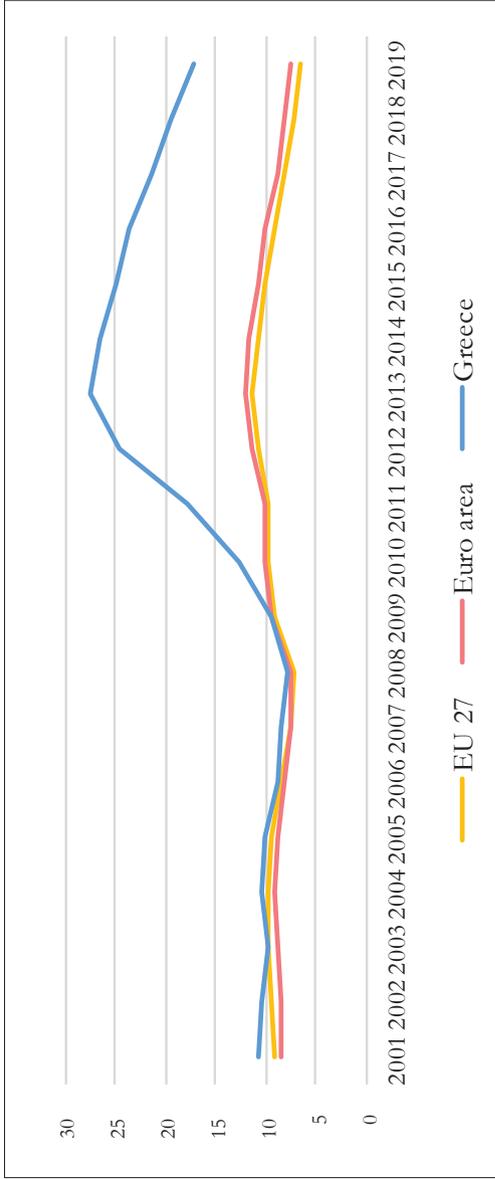


Source: Eurostat, Labour Force Survey.

rates in the EU increased during this period, the distance between the Greek and EU rates grew again. On the other hand, between 2009 and 2013 Greece experienced an unprecedented decline in its employment rate, which dropped below 50 per cent (48.8), the lowest level in decades. The impact of the crisis in the EU was much more limited compared to Greece, even in countries that had also implemented economic adjustment programmes. After 2013 the employment rates recovered gradually in both the EU and Greece. However, Greece still has a long way to go to reach the EU average. In 2019, Greece's employment rate stood at 56.5 per cent, back at its 2001 level; this was the worst performance in the EU, 12 percentage points below the EU average.

The low employment rates are partly due to the high unemployment rates, particularly after the crisis. Before the crisis, despite a long period of high growth, from the mid-1990s to 2007, unemployment in Greece hovered around the 10 per cent mark. This was higher than, but close to the EU and Euro area averages (Figure 1.2). From 2005 unemployment started to gradually decline, reaching its lowest level in 2008 (7.8 per cent). With the onset of the crisis, the unemployment rate rose sharply. The total unemployment rate more than tripled between 2007 and 2013, reaching a peak of 27.5 per cent. Although all crisis-hit countries experienced increases in unemployment, the rise in Greece was by far the largest in the euro area. The only country with comparable numbers was Spain, which saw its unemployment rate peak at 26.1 per cent in 2013. Following the gradual recovery of the economy, the unemployment rate has been slowly declining in recent years, reaching 17.3 per cent in 2019, still the highest unemployment rate in the EU.

Figure 1.2
Unemployment rate, percentage of population in the labour force



Source: Eurostat, Labour Force Survey.

1.1.2 Low labour productivity

Labour productivity in Greece is low compared to most advanced economies. After a period of improvement from the mid-1990s to the mid-2000s, labour productivity stagnated, and after the outbreak of the crisis declined, stabilizing in recent years, albeit at levels below those of the pre-crisis period. In 2019 the value added produced in an hour in Greece corresponded to 56 per cent of that produced in the EU on average, and to less than 50 per cent of that produced in North European economies; the comparison with most other South European economies is also not favourable (Figure 1.3).

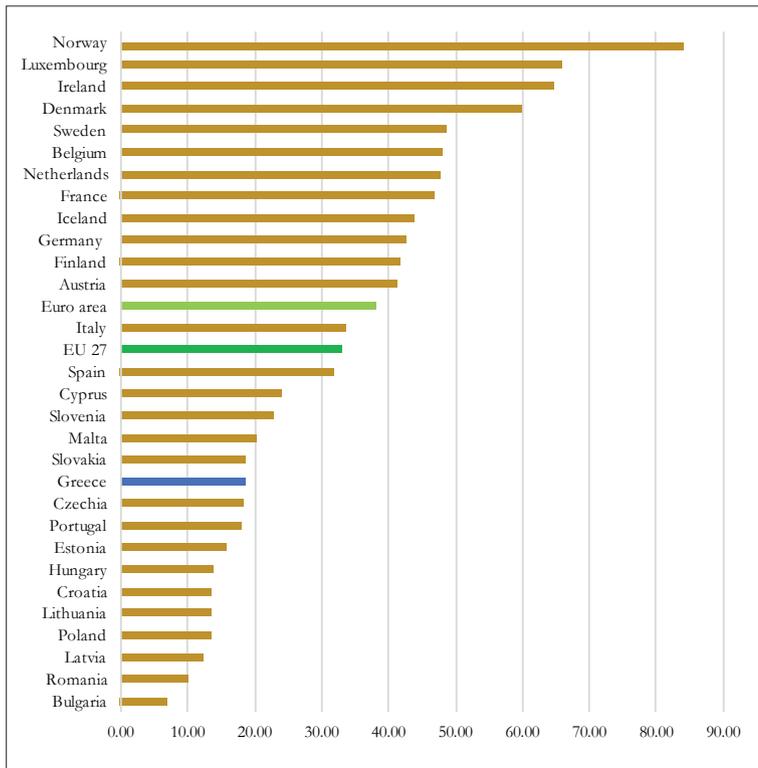
The low levels of labour productivity are partly due to structural features of the Greek economy, such as the diachronically low levels of private productive investment, including through FDI, and the very small size of Greek businesses. The resulting lack of productive assets, both physical and intangible (technological knowhow and innovation-related intellectual property rights), and the lack of scale, sustain each other in a negative economic equilibrium, characterized by low productivity, leading to low international competitiveness. This situation perpetuates Greek businesses' orientation towards the domestic market and low value-added activities. The crisis made matters worse; during the 2010s the economy ran well below its productive potential, investments collapsed, and savings turned negative, leading to substantial investment and savings gaps (Pissarides Report 2020).

In addition to structural features of the Greek economy, low productivity is also due to the lack of appropriate skills. According to the European Skills Index (ESI) developed by Cedefop, Greece's skills system performs very poorly. The ESI index is composed of three sub-indices: skills development (which measures the development of skills through the educational, vocational training, and life-long learning systems), skills activation (which

measures the participation of different skills in the labour market), and skills matching (which measures the effective matching of available skills with those required in the labour market).

Figure 1.3

**Productivity per hour worked, EEA member states
(euros, constant prices 2010)**



Source: Eurostat, National Accounts Data.

Greece ranks very low on every index. In the overall index, Greece comes second from bottom, above only Italy, with a score of 30, while the leader (the Czech Republic) has a score of 77 (the perfect

score being 100). Despite this, Greece's performance has improved somewhat in relation to previous measurements: it scored just 23 in 2016, when it was in joint last place with Spain. In terms of the sub-indices, Greece scored 43 in skills development, ranking 5th from bottom, 45 in skills activation, ranking 4th from bottom, and 17 in skills matching, ranking last, as it did in previous measurements, although it has improved its score from the extremely low score of 9 achieved in 2016.

Looking more closely at the skills matching dimension, it becomes clear that Greece faces a serious skills mismatch problem, that is, incongruity between workers' qualifications and the requirements of the jobs and vacancies available in the labour market,¹ with the country occupying the last places among EU member states in various relevant rankings (e.g., Cedefop 2019, 2020a; OECD 2019). On the supply side of the labour market, Greek workers experience both vertical and horizontal mismatch; the economic crisis made things worse, as highly educated and/or skilled people found themselves unable to find suitable jobs, which led to 'brain drain' and 'brain waste' phenomena, as large numbers of workers either left the country or became long-term unemployed or under-employed.

On the labour demand side, skill shortages are also consistently high in Greece. According to the latest talent shortage survey conducted by Manpower, 80 per cent of employers are facing

¹ The concept of skills mismatch is complex and multifaceted. It includes both vertical (over/ under-qualification) and horizontal (i.e., the unrelat- edness between the type/ content of one's qualifications and the nature of their work) mismatch, as well as the obsolescence of skills. Viewed from the employers' side, it includes skills gaps and shortages. The former refers to situations where workers do not have the necessary skills to perform their duties competently, while the latter to the inability of employers to find suit- ably qualified workers for vacancies they need to fill. For a more detailed discussion of these concepts see McGuinness et al. (2018).

difficulties finding the appropriate personnel (Manpower 2021). This is an all-time high for Greece, and the results have undoubtedly been affected by the pandemic, as evidenced by the fact that the percentage of companies reporting difficulties has spiked globally. Nonetheless, Greek employers reported a high incidence of hiring difficulties even before the pandemic (SEV 2019).

The skills shortages problem should not, however, be attributed entirely to the labour supply. Skills shortages may relate to the wage and employment conditions offered by companies (McGuinness *et al.* 2018). The wages Greek companies have offered since the crisis have not been particularly attractive on average, while other aspects of the employment on offer, such as training opportunities, are also in short supply in Greece; only 21.7 per cent of Greek enterprises offer continuing vocational education and training (CVET), compared to 72.6 per cent in the EU (Cedefop 2020b).

1.1.3 Segmentation

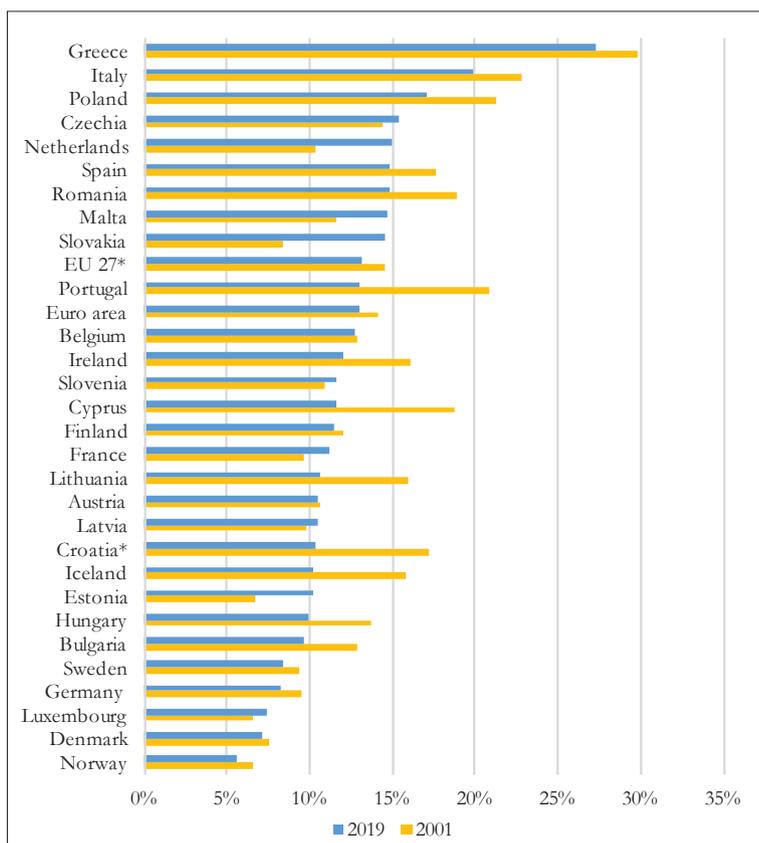
The Greek labour market is segmented. Although segmentation can be seen in numerous aspects of its performance (Filinis *et al.* 2018), there are two major lines of segmentation, which effectively render the labour market in Greece a three-tiered market. First, the share of self-employment is substantially higher compared to most other European economies (Figure 1.4). Although the number of those self-employed has declined slightly over the years, following a trend common to most European economies, it continues to be more than double the EU and euro area averages, and Greece is the only country with a share of self-employed which is higher than 20 per cent of total employment.

Apart from historical reasons and the idiosyncratic characteristics of the Greek economy, which render this choice attractive for many people, this feature has also been the result of a

practice whereby employers substitute dependent employment with self-employment to avoid the burdens of the institutional framework covering employees (e.g., high severance payments, cost of insurance contributions, parenthood leaves, etc.).

Figure 1.4

Share of self-employed, EEA member states (% of total employment, 15-64 years old)

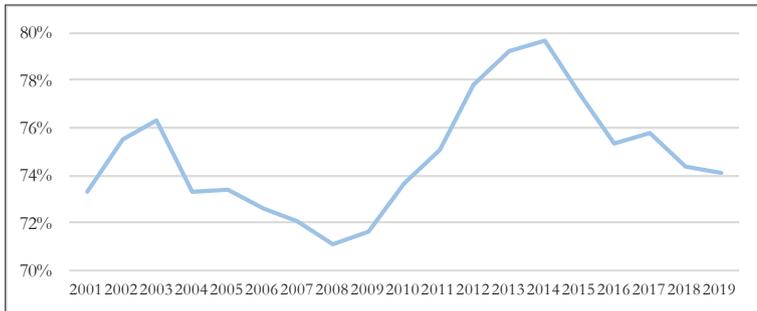


* Data for 2002

Source: Eurostat, Labour Force Survey.

In other words, part of the self-employed are effectively substituting employees, without however enjoying the advantages of dependent employment. The prevalence of this practice is evident by the share of self-employed in Greece who do not employ other persons (being themselves effectively employees). As shown in Figure 1.5, 75 per cent of self-employed persons do not have employees. During the crisis this percentage increased further to 80 per cent, which could indicate a strengthening of the practice, although undoubtedly a large part of the increase is due to the closure of many small businesses with employees. Finally, it should be noted that the incentives for this practice are strengthened by the very high taxation of labour in Greece, particularly for middle-level wages (Pissarides Report 2020, 101-102).

Figure 1.5
Share of self-employed persons without employees



Source: Eurostat, Labour Force Survey.

Another major segmentation line in the Greek labour market is that between declared and undeclared employment. The occurrence of undeclared work is directly related to the size of the informal economy, which in Greece is estimated at 30 per cent of GDP (Kelmanson *et al.* 2019), one of the highest in the EU. There are no reliable data on the exact number of undeclared workers; studies

conducted during the previous decade have estimated a high share of undeclared work, usually close to or over 30 per cent (for a brief review see ILO 2016). The report of the “Artemis” project, meant to combat uninsured and undeclared work, published by the Hellenic Labour Inspectorate (SEPE), gives a different picture. Out of 243.974 inspections performed during the period 15 September 2013 - 31 December 2019, undeclared work was found in only 11.73 per cent of the enterprises inspected, with the share of undeclared workers being only 5.35 per cent; according to the report, the average annual rate of undeclared work in sectors with high delinquency has declined dramatically since 2013, when it was over 30 per cent, to 5.22 per cent in 2019 (SEPE 2020).

While the relaxation of the employment legislation framework, which reduced employers’ incentives for using undeclared work, the introduction of new electronic registration and inspection systems, and the imposition of substantially higher fines in recent years, have very likely reduced the incidence of undeclared work, these percentages seem very low, particularly since the estimates for the size of the informal economy have not changed substantially during the same period, and should probably be treated as minimum thresholds. Such scepticism is corroborated by the findings of a 2019 Special Eurobarometer survey (No 498), where 27 per cent of respondents from Greece said that they had paid for goods and services that very likely included undeclared work, compared to only 10 per cent of respondents from the EU as a whole. Looking at the supply side of undeclared work, 59 per cent of respondents from Greece stated that they knew a person that worked informally, wholly or in part, compared to 33 per cent in the EU. It should be noted that these figures are not substantially different from the responses of a similar survey carried out in 2013; at the time, 30 per cent of respondents had said that they had paid for goods and services that very likely included undeclared work,

while 54 per cent had stated that they knew a person that worked without declaring their income or part of it.

The phenomena of undeclared and under-declared work (which seems to be on the rise in recent years),² no doubt relate to the structural characteristics of the Greek economy, such as the high share of self-employed described above, and the prevalence of very small businesses in employment. According to Eurostat data, in 2018 there were approximately 710,000 enterprises in Greece; 94.8 per cent of these employed up to 9 persons, which corresponded to roughly 48 per cent of all employees, the highest percentage in the EU. Micro businesses of this kind have more incentives to use undeclared employment to reduce regulatory and tax burdens,³ while they also tend to employ family members informally. On the other hand, the self-employed also have increased incentives to work informally to avoid paying insurance contributions and reduce their tax obligations. It is also easier for them to do so, particularly for those offering services to physical persons; according to the 2019 Special Eurobarometer, respondents typically purchased services that included undeclared work for home repairs and renovations, hairdressing and beauty, general repairs (e.g., mobiles, cars, etc.) and health.

1.2 Rationale and structure of the study

The previous overview of the labour market provides the background for the analysis that follows. It shows that young people and young women in Greece have to navigate a labour market fraught with long-standing structural problems, following a

² According to anecdotal evidence and employee surveys' findings. This trend may be related to the increased use of part-time employment following the reforms of the previous decade.

³ The high labour taxation mentioned above also constitutes a major incentive in this respect.

prolonged period of adverse economic conditions. The result, as will be shown in detail in the next chapters, is that many of these problems (e.g., low participation and employment rates, high unemployment rates, undeclared work, skills mismatch, etc.) are even more pronounced for young people, and in many cases for young women.

The under-utilization of the labour potential of women and the young constitutes a major disadvantage for Greece. The integration of young people and women in the world of work contributes to their own well-being, promotes social and intergenerational cohesion and solidarity, and adds valuable resources to the economy, increasing its productive capacity and therefore its growth potential.

Given the economic and social impact of the 2010s crisis, and more recently, of the pandemic, strong economic recovery along a sustainable path is a challenge of the utmost importance and urgency for Greece. The challenge is magnified by the need to achieve economic recovery while implementing, and by leveraging, the green and digital transitions. To this end, mobilizing human capital needs to become a top policy priority. This seems to have been realized, at least at the level of public policy analysis and planning. From the Pissarides Report, commissioned by the government to outline a medium-term plan for sustainable growth in Greece, to the policy proposals of the National Recovery and Resilience Fund (NRRF), which establishes “Employment, skills and social cohesion” as one of its four core pillars to direct funding under the NextGenerationEU platform, the integration of young people and women in the labour market is increasingly acknowledged as a prerequisite for harvesting the full potential of the Greek economy and for restoring social cohesion.

In this context, this study is timely and offers insights which could be of use to policy makers. More specifically, our research focuses on the difficulties that young people face both in accessing the labour market and in making their first professional steps once

employed. The research places emphasis on the gender dimension by exploring in more detail the difficulties faced by young women.

The study was designed with two objectives in mind: (a) To document in detail the situation regarding the inclusion of young people in the Greek labour market (including through a gender perspective), and (b) Drawing on the expertise of Fafo, to gain from knowledge transfer and policy learning.

To offer a comprehensive documentation regarding the inclusion of youth in the labour market, the research proceeds in three different directions: first, we document the ‘state of play’ in the labour market, through a detailed examination of data about the young, with a separate section on young women (chapters 2 and 3). Second, we examine the Greek educational system (including vocational education and training) and its link to the labour market (chapters 5 and 6). Third, we document the views of the young people themselves through a survey about their experiences in the labour market (chapter 7). The youth survey complements the data from official databases and registries; we felt that it was necessary to listen to the views and aspirations of young people, as well as their own accounts of their experiences, including their individual adjustment and “survival” strategies to handle difficulties and obstacles. The experience of Fafo, which had already conducted a youth barometer survey in Norway, helped us with the design of the labour market youth survey in Greece.

Regarding the second objective, the study includes a chapter on labour market policies and practices in the Nordic countries (chapter 8). These countries, often referred to as belonging to a “Nordic model”, have achieved strong and sustainable growth rates, based on high levels of productivity, competitiveness and innovation, a dynamic labour market, with high employment rates and high levels of life satisfaction. The section on the Nordic countries presents and discusses policies and best practices improving the access of young people and women to the labour market.

These policies were further explained and put in context in very interesting discussions with researchers and stakeholders from Norway, in a series of online workshops. Despite the differences in the political economies of Greece and Norway, we believe that many of these policies and practices could prove useful when considering the Greek case.

In the period between the submission of the research proposal for the project and its beginning, the pandemic broke out. Given the unique challenges that the pandemic set for labour markets across the world, we felt that it was necessary to include an analysis of the impact of the pandemic, emphasizing once again its effects on the young (chapter 4).

PART I

**DOCUMENTING THE STATUS OF YOUNG MEN
AND WOMEN IN THE GREEK LABOUR
MARKET: PERFORMANCE AND POLICIES**



YOUNG PEOPLE IN THE GREEK LABOUR MARKET: AN OVERVIEW

Kyriakos Filinis



Youth unemployment and underemployment are major problems of the Greek economy and society. Despite the reforms implemented during the previous decade, following the outbreak of the crisis, Greece continues to perform poorly on several indicators regarding the position of youth in the labour market. The objective of this chapter is to outline and analyse the profile of young people in the Greek labour market before, during and after the Greek economic crisis. The chapter is structured as follows: The first section discusses the participation of youth in the labour force. The next section focuses on youth employment and its distribution between sectors, occupations, and standard and atypical forms of work. Furthermore, it describes how this distribution leads some youth to work in jobs for which they are overqualified. Youth unemployment, and especially its long-term aspects, are analysed in the third section. The fourth section focuses on young people who are not in employment, education or training (NEETs). The final section summarizes the findings and offers some concluding remarks. An appendix, written in collaboration with Apostolos Fasianos, explores further the characteristics of overqualified youth in the Greek labour market.

2.1 Participation of young people in the labour force

In Greece, between 2001-2019, the active population aged 15-34 decreased by 34.4 per cent, from 1.92 million to 1.26 million

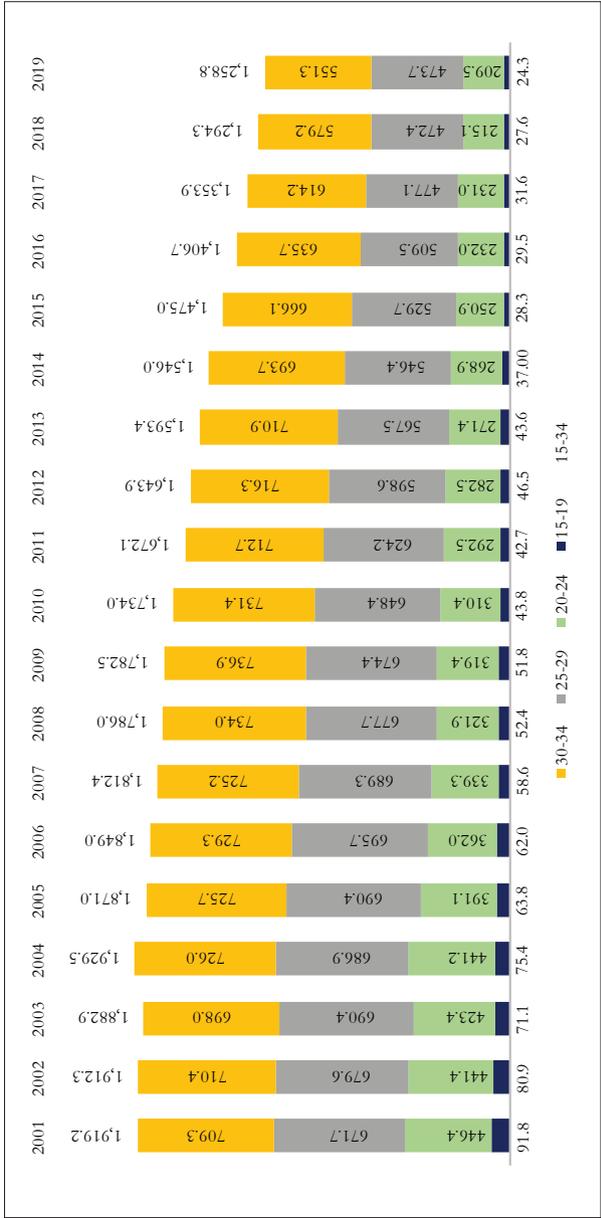
persons. This trend is common for all the age subgroups, but more pronounced for the 15-19 and 20-24 ones (Figure 2.1).

Specifically, the number of young people aged 15-19 who participated in the labour force declined by 73.5 per cent, from 91.8 to 24.3 thousand, while that of the age group 20-24 declined by 53.1 per cent, from 446.4 thousand to 209.5 thousand. Regarding the 25-29 age subgroup, the number of labour force participants decreased from 671.7 to 473.7 thousand, a decline of 29.4 per cent. Finally, the number of labour force participants aged 30-34 declined by 22.3 per cent from 709.3 to 551.3 thousand during the same period (Figure 2.1).

As a result of these developments, the youth labour force participation rate decreased from 60.7 per cent, in 2001, to 56.4 per cent in 2019 (Figure 2.2). The decline of youth's labour force participation rate is relatively small, given that the active population was reduced by more than one third. This is due to the reduction of the total population aged 15-34 by 29.3 per cent, from 3.2 to 2.2 million persons during the same period (Eurostat). Throughout the period 2001-2019, and especially during the second half of the period, the youth population declined due to two reasons (Kotzamanis 2021): a) in the 1990s, the number of births was on a downward path and b) during the period 2010-2015 the migration balance (inflows-outflows) became negative. The migration outflows were mainly fuelled by immigrants who had settled in the country during the previous years and moved to other countries when the crisis struck, and by young Greek tertiary education graduates (Kotzamanis 2021: 28). People from both groups emigrated to other countries in order to find better employment prospects.

The evolution of the labour force participation rates varies significantly between the different youth age subgroups. Specifically, between 2001-2019, the labour force participation rate of the age subgroups 15-19 and 20-24 decreased from 12.8 per cent to 4.5 per cent and from 58.5 per cent to 42.1 per cent respectively. On

Figure 2.1
Participants in the labour force, 15-34 years old, Greece (in thousands)



Source: Eurostat, Labour Force Survey.

the other hand, during the same period, the participation rate of the subgroup 25-29 increased from 81.8 per cent to 83.8 per cent and of the subgroup 30-34 from 82.6 per cent to 87.9 per cent (Figure 2.2).

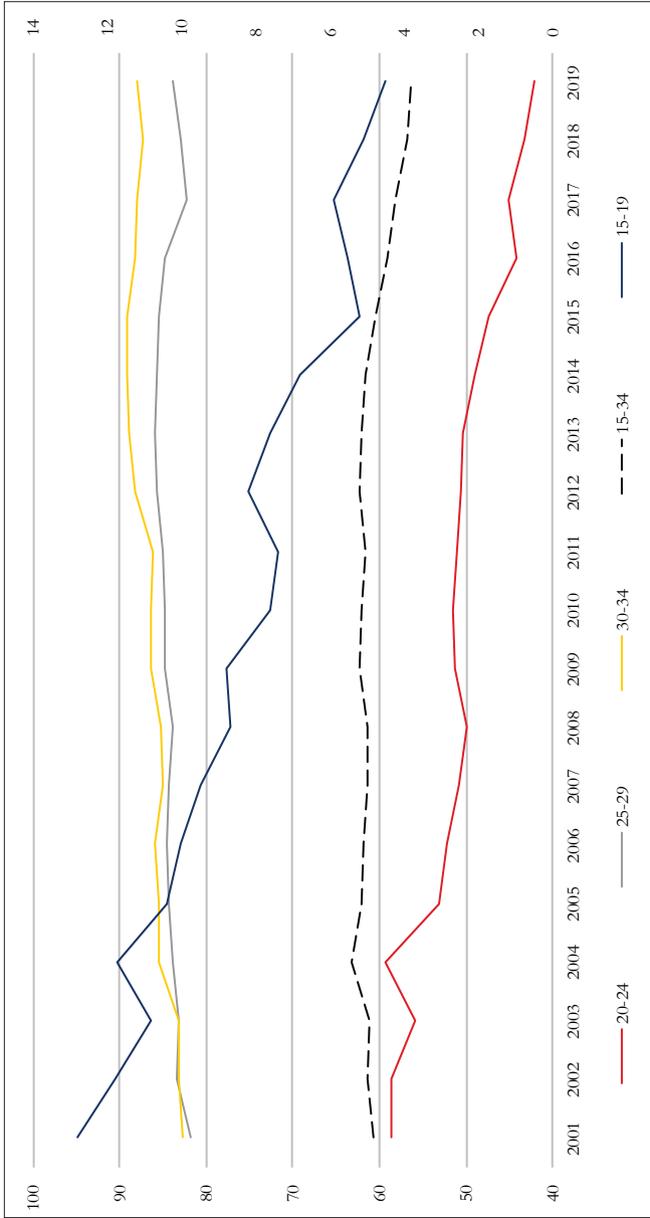
The lower participation rates of the younger age groups can be explained by the fact that they do not face significant financial commitments and their parents may be willing to support them for as long as they cannot find a job, which in turn creates incentives for exit from the labour market (Bell and Blanchflower, 2015). More generally, the reliance of young adults on parental assistance in Greece is greater compared to other European countries and the strong family ties, which characterise the Greek family, affect young adults' choices and labour market decisions (Tsekeris *et al.*, 2017: 5).

Furthermore, during the crisis the dramatic reduction in the number of available positions for a protracted period of time probably discouraged many young people, who stopped looking for a job. In this context, the "opportunity cost" of education declined, especially for the younger age group without financial commitments. More generally, the opportunity cost of education decreases during recessions, as the wages of the less educated decrease, leading more young people to education (Stuart, 2018: 8-9). In Greece as well, as it will be shown in other parts of this report, youth remained in, or re-entered education and training and didn't join the labour market.

2.1.1 The gender dimension

From a gender perspective, during the last twenty years, the number of males aged 15-34 who participated in the labour force decreased by 37.6 per cent, from 1.1 million to 677.6 thousand (Figure 2.3), while the number of female labour force participants of the same age group decreased by 30.2 per cent, from 832.9 to 581.3

Figure 2.2
Labour force participation rates, 15-34 years old (Greece, % of total population of each age group)



Source: Eurostat, Labour Force Survey. Author's calculations.

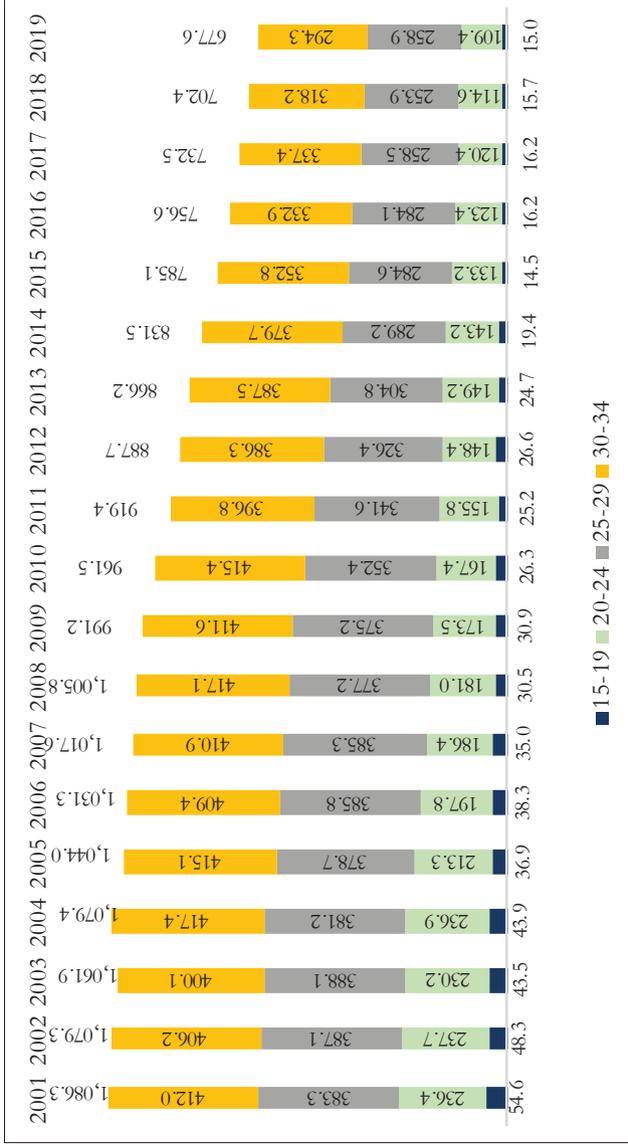
thousand (Figure 2.4). As the number of active men declined more than that of women, the share of male labour force participants decreased from 56.6 per cent to 53.8 per cent, while the females' share increased from 43.4 per cent to 46.2 per cent.

Between 2001 and 2019, the number of males aged 15-19 who participated in the labour force declined by 72.5 per cent, from 54.6 to 15 thousand. The number of economically active males aged 20-24, displayed a smaller but still very sizable decline (35.7 per cent), from 236.4 to 109.4 thousand. The decline of male labour force participants aged 25-29, was smaller (32.5 per cent), from 383.3 thousand in 2001 to 258.9 thousand in 2019. Finally, the active male population aged 30-34, displayed the smallest decrease (28.6 per cent), declining from 412.0 thousand in 2001, to 294.3 thousand in 2019 (Figure 2.3).

The number of females aged 15-19, who participated in the labour force diminished by 75.0 per cent, between 2001 and 2019, recording the biggest reduction of labour market participants among all the age and gender subgroups. In particular, female youth aged 15-19, who participated in the labour force, numbered 37.2 thousand in 2001, and by 2019 it had shrunk to a mere 9.3 thousand.

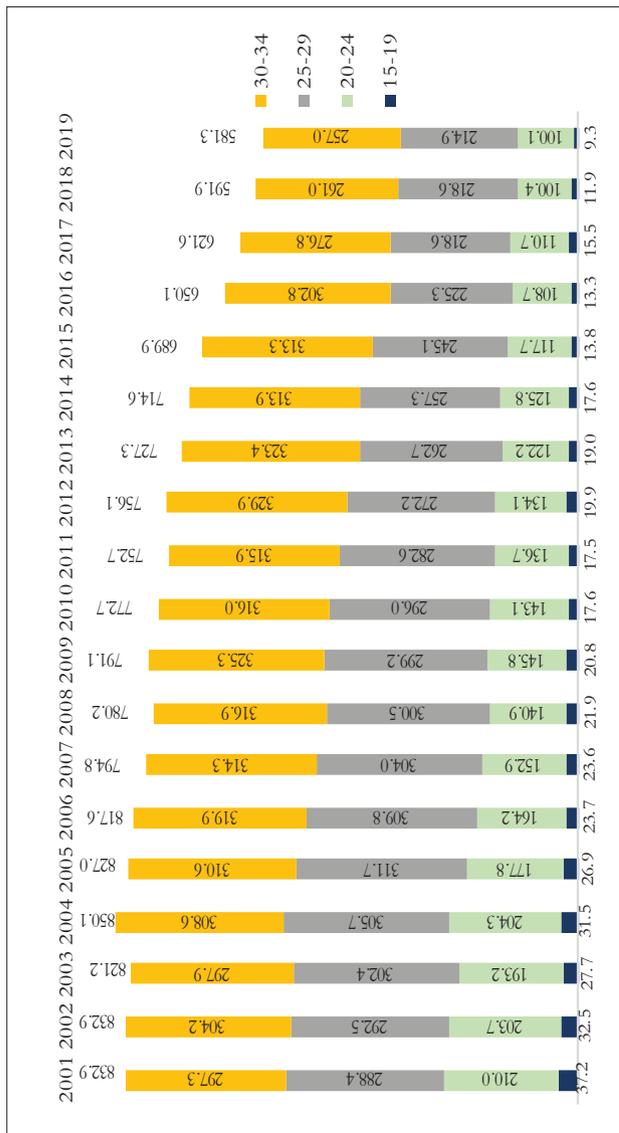
In 2001, the active female population aged 20-24 numbered 210.0 thousand, and by 2019 it had fallen to 100.1 thousand, a reduction of 52.3 per cent. The size of the active female population for the 25-29 and 30-34 age subgroups declined to a lesser extent, by 25.5 per cent and 13.6 per cent respectively. More specifically, the number of female labour force participants between 25 and 29 years old dropped from 288.4 thousand in 2001 to 214.9 thousand in 2019 and that of the 30-34 age group from 297.3 to 257.0 thousand (Figure 2.4).

Figure 2.3
Young males in the labour force, Greece (in thousands)



Source: Eurostat, Labour Force Survey.

Figure 2.4
Young females in the labour force, Greece (in thousands)

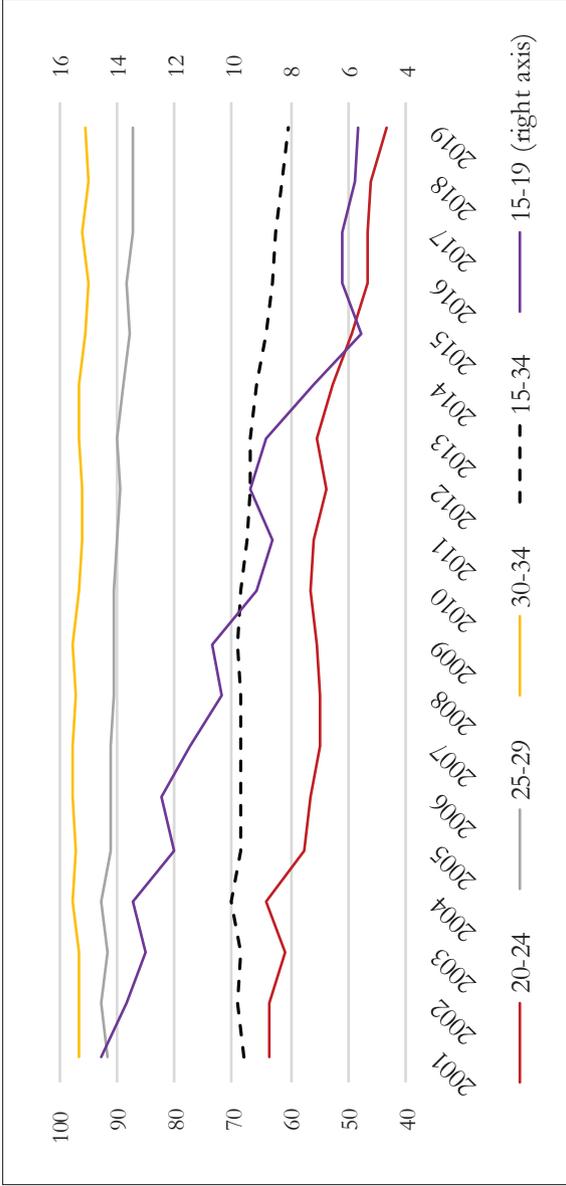


Source: Eurostat, Labour Force Survey.

Until 2013, the males' labour force participation rate ranged between 68 and 70 per cent. Then a downward trend began, reducing the labour force participation rate of this subgroup to 60.1 per cent by 2019. The reduction was bigger for the younger subgroups of 15-19 and 20-24. Specifically, between 2013-2019, the labour force participation rate of males aged 15-19 and 20-24 declined from 8.8 per cent to 5.6 per cent and from 55.2 per cent to 43.5 per cent respectively. At the same time, the participation rate of males aged 25-29 and 30-34 displayed a minor reduction from 89.4 per cent to 86.9 per cent and from 96.3 per cent to 95.1 per cent respectively (Figure 2.5).

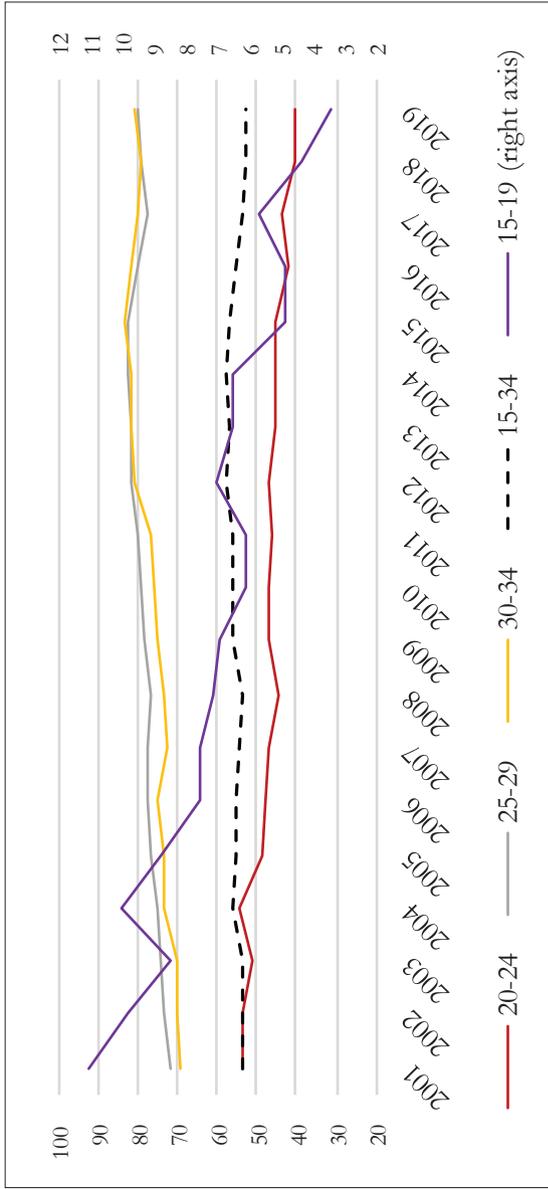
The labour force participation rate for young females remained lower than for males during the period 2001-2019. Until 2013 the female participation rate was approximately 55 per cent, while since 2015 it has started to decline. As a result, the female participation rate had fallen to 52.6 per cent in 2019. Between 2013 and 2019, the participation rate of females aged 15-19 declined from 6.5 per cent to 3.4 per cent and of those aged 20-24 from 45.4 per cent to 40.7 per cent. The reduction in the older subgroups was smaller, as was also the case with the males. During the period 2013-2019, the labour force participation rate of the females aged 25-29 and 30-34 declined from 81.6 per cent to 80.4 per cent and from 81.5 per cent to 80.9 per cent respectively (Figure 2.6).

Figure 2.5
Participation rate of young males in the labour force (Greece, % of population of each age group)



Source: Eurostat, Labour Force Survey.

Figure 2.6
Participation rate of young females in the labour force (Greece, % of population each age group)



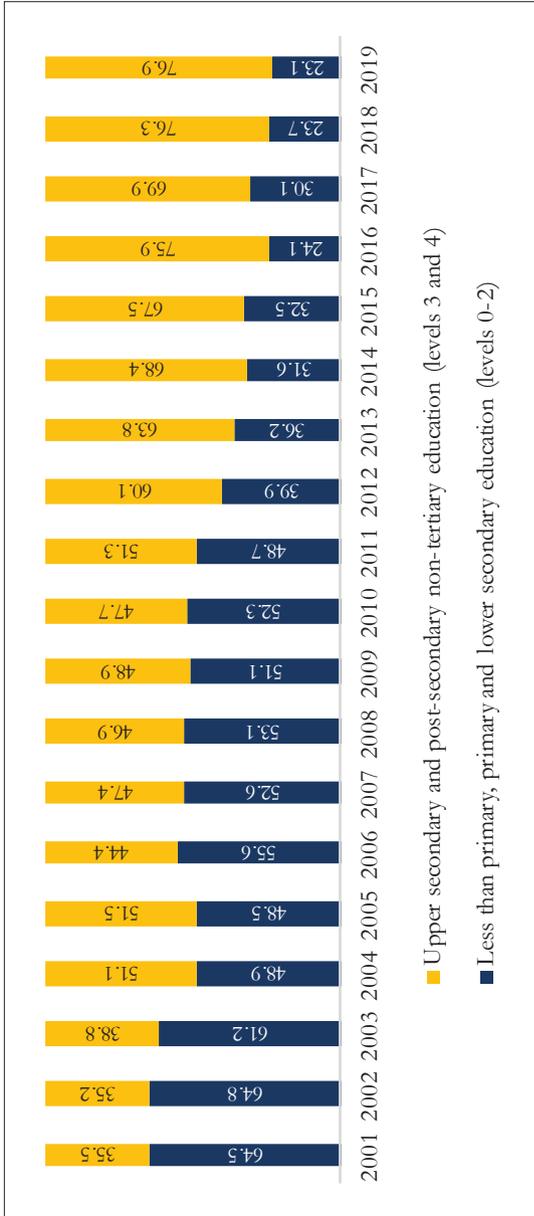
Source: Eurostat, Labour Force Survey.

2.1.2 Educational attainment

During the period 2001-2019, the educational qualifications of all age subgroups improved. The share of upper secondary education graduates aged 15-19, who participate in the labour market increased from 35.2 per cent (2001) to 76.9 per cent (2019), while the share of graduates from the lower educational levels decreased from 64.5 per cent (2001) to 23.1 per cent (2019) (Figure 2.7).

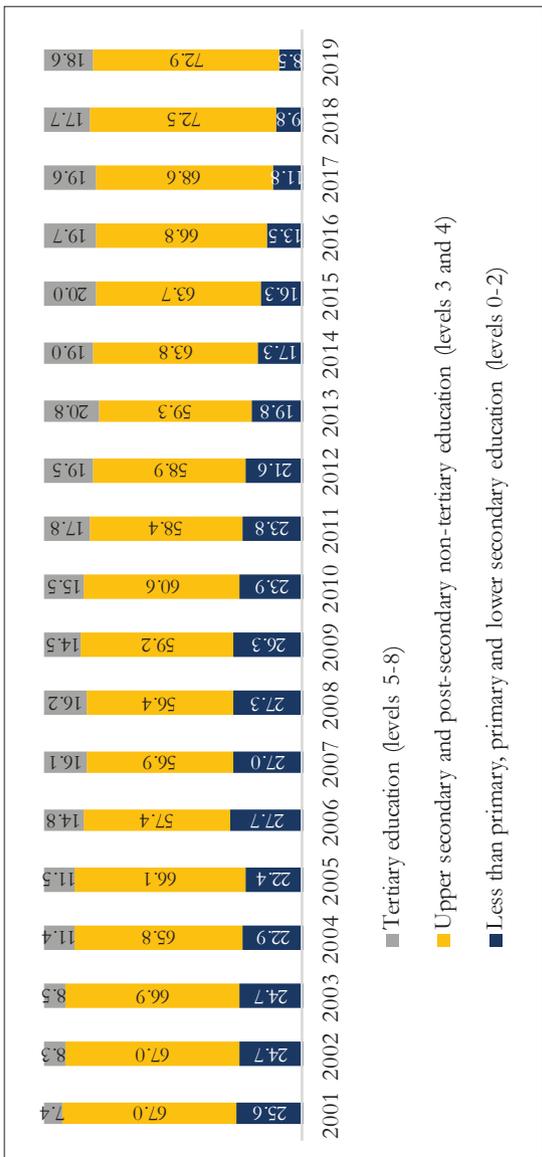
The share of labour market participants aged 25-29, who have graduated from tertiary education doubled from 22.2 per cent in 2001 to 43.9 per cent in 2019, while the share of graduates of lower levels of education decreased from 54.1 per cent to 48.8 per cent, for the upper secondary and post-secondary non-tertiary graduates, and from 23.7 per cent to 7.4 per cent for the graduates of mandatory education or below (below lower secondary education) (Figure 2.9).

Figure 2.7
 Youth aged 15-19 who participate in the labour force by educational attainment (Greece, %)



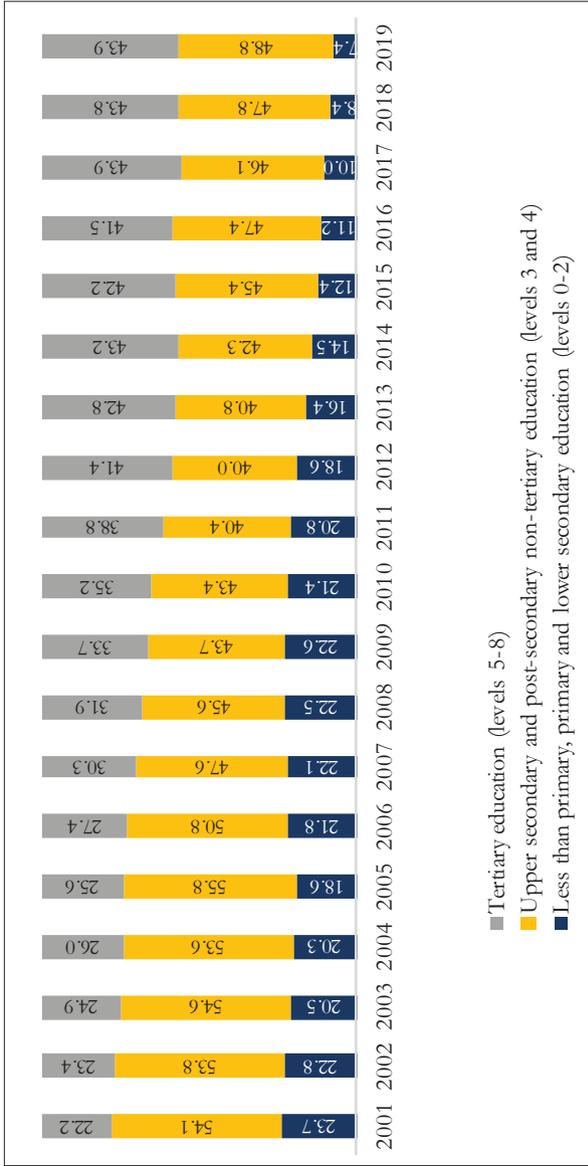
Source: Eurostat, Labour Force Survey. Author's calculations.

Figure 2.8
Youth aged 20-24 who participate in the labour force by educational attainment (Greece, %)



Source: Eurostat, Labour Force Survey. Author's calculations.

Figure 2.9
Youth aged 25-29 who participate in the labour force by educational attainment (Greece, %)



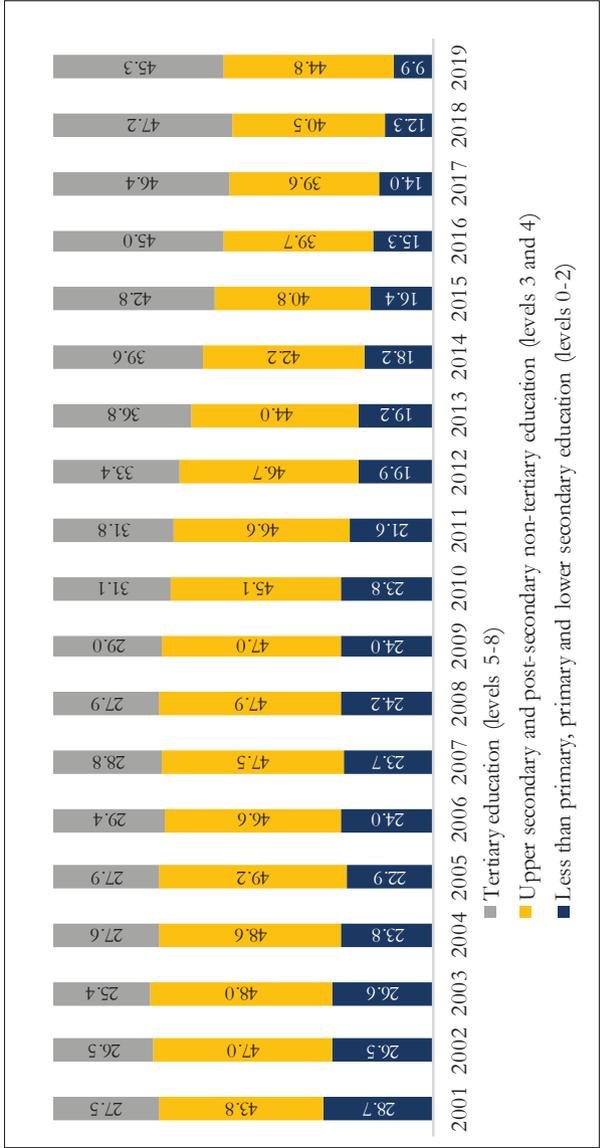
Source: Eurostat, Labour Force Survey. Author's calculations.

The same trend was observed in the 30-34 age group; the share of active youth who have graduated from the primary and lower secondary educational levels shrank from 28.7 per cent in 2001 to 9.9 per cent in 2019, while the share of the tertiary graduates almost doubled, from 27.5 per cent to 45.3 per cent (Figure 2.10).

The improvement of the educational qualifications of the young active population could explain part of the reduction of the youth participation rate in the labour force. By staying in education for longer, young people remain outside the labour market for greater periods of time.

During the last two decades access to the higher education system became easier, since both the number of tertiary education departments and the number of students increased substantially. However, the expansion of the tertiary education system in Greece was to a great extent due to the proliferation of “less costly” departments, in terms of infrastructure, in scientific fields, such as Arts and Humanities, Business Administration, Law and Social Sciences and Journalism and Media Studies, which women select in greater numbers, rather than more costly fields, such as Engineering and Construction and Information and Communication Technologies (IOBE, 2017: 59-63).

Figure 2.10
Youth aged 30-34 who participate in the labour force by educational attainment (Greece, %)



Source: Eurostat, Labour Force Survey. Author's calculations.

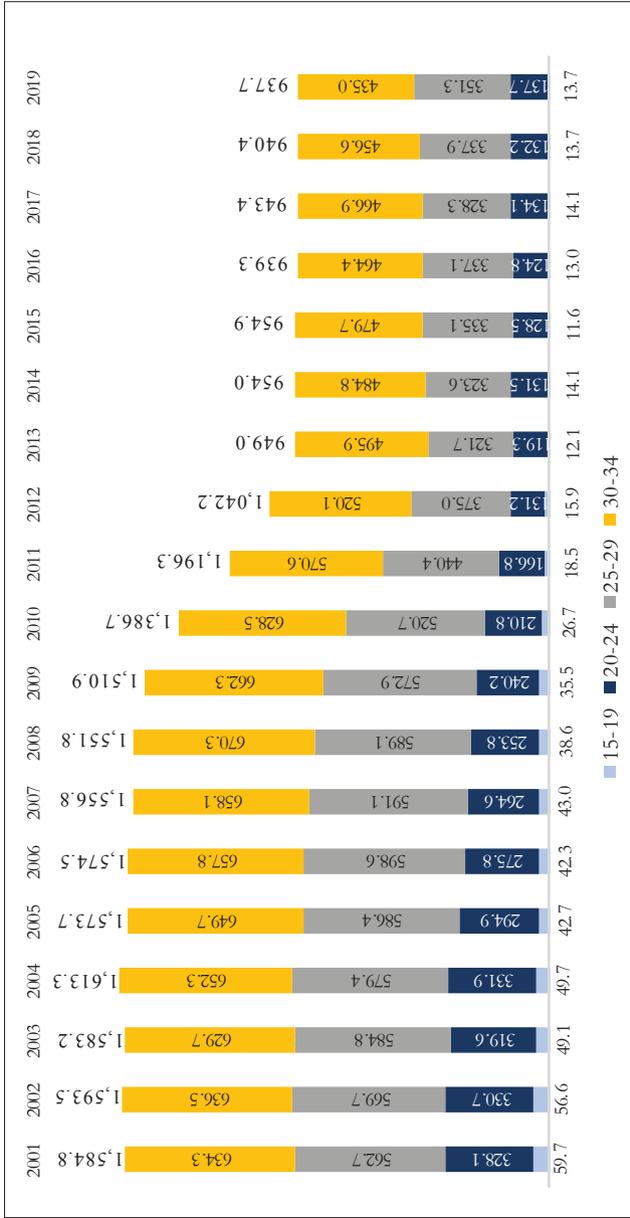
2.2 Youth employment

Until 2009, the number of young employees ranged between 1.5 and 1.6 million, with most of them belonging to the 30-34 and 25-29 age subgroups. The economic crisis led to the constant decline of the number of employees. In 2013, at the peak of the crisis, the number of young employees fell to 954 thousand, remaining at this level until 2019 (Figure 2.11). The biggest reduction in terms of percentage change concerned the employees aged 15-19, reaching 64.5 per cent. The number of employees of the other age subgroups decreased to a lesser, but still very substantial extent; more specifically, for those aged 20-24 the reduction was 45.7 per cent, for those aged 25-29 40.4 per cent and for those 30-34 years old 35.1 per cent.

As a result of these dynamics, the youth employment rate fell to 35.9 per cent between 2009 and 2013, from over 50 per cent during the period 2001-2008. Since 2014, the employment rate has been on the rise, but remains below pre-crisis levels. In 2019, the youth employment rate was 41.2 per cent, ten percentage points lower than the 2008 rate (52.5 per cent) (Figure 2.12).

Before the crisis, the employment rates of the age sub-groups followed two different patterns: the younger age groups (15-24) were on a slightly downward path, while that of the older age groups (25-34) improved slightly. From then on, all age groups follow the same pattern: sharp fall between 2009-2013 and gradual recovery from 2014 to 2019 (Figure 2.12). However, the employment rates of all age subgroups in 2019 were much lower compared to the pre-crisis levels. In 2019, the employment rate for the age subgroup 15-19, was four percentage points lower than that in 2008 (2.5 per cent compared to 6.4 per cent), for the age subgroup 20-24, 12 percentage points lower (27.7 per cent compared to 39.4 per cent), for the age subgroup 25-29 group, 11 percentage points lower (62.2 per cent compared to 72.9 per cent), and for the age

Figure 2.11
Young employees, Greece (in thousands)

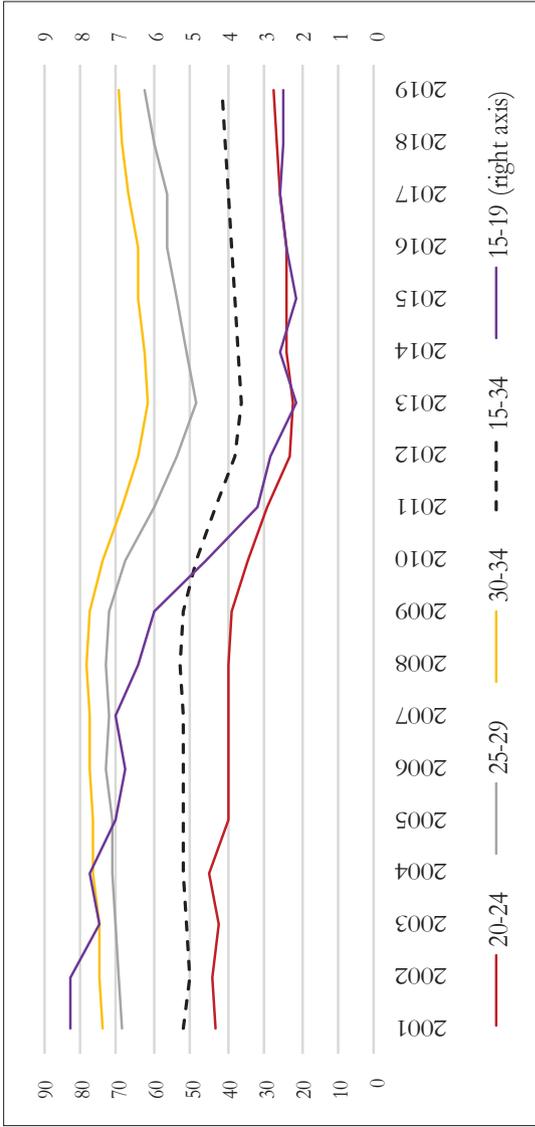


Source: Eurostat, Labour Force Survey.

subgroup 30-34, eight and half percentage points lower (69.4 per cent compared to 77.9 per cent) (Figure 2.12).

Youth employment is very sensitive to economic fluctuations, since young employees are more likely to hold atypical forms of work (temporary or part-time employment) and they have less employment experience. These factors make them more vulnerable to economic slumps (Commission EC, 2017: 36). Furthermore, the combination of a minimum wage and a high tax wedge creates strong incentives for employers to offer part-time or undeclared jobs to the young and for the latter to accept them, increasing their precariousness in the labour market.

Figure 2.12
 Youth employment rate (Greece, % of total population of each age group)



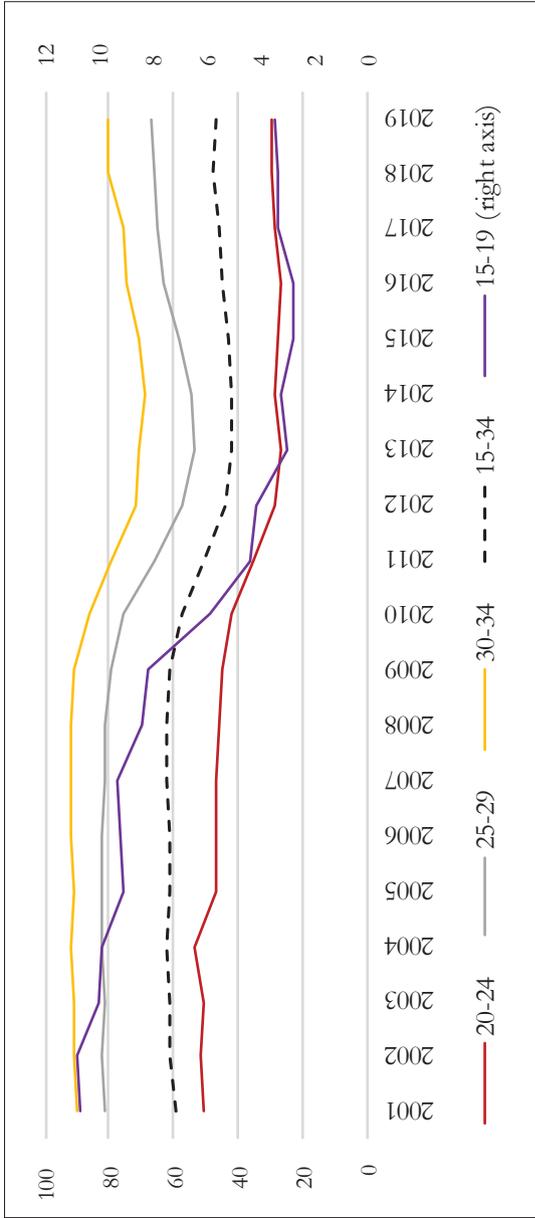
Source: Eurostat, Labour Force Survey.

2.2.1 The gender dimension

The employment of males and females aged 15-34 followed the same pattern. In 2001, the employment rate of males aged 15-34 was 59.7 per cent and had increased to 62.0 per cent, by 2008. In 2013, the males' employment rate shrank to 42.2 per cent and then started increasing to reach 47.0 per cent in 2019 (Figure 2.13). The females' employment rate increased from 40.4 per cent, in 2001, to 44.4 per cent, in 2008, and shrank to 31.6 per cent in 2013; then it started on an upward trend, and by 2019 it had increased to 36.9 per cent (Figure 2.13).

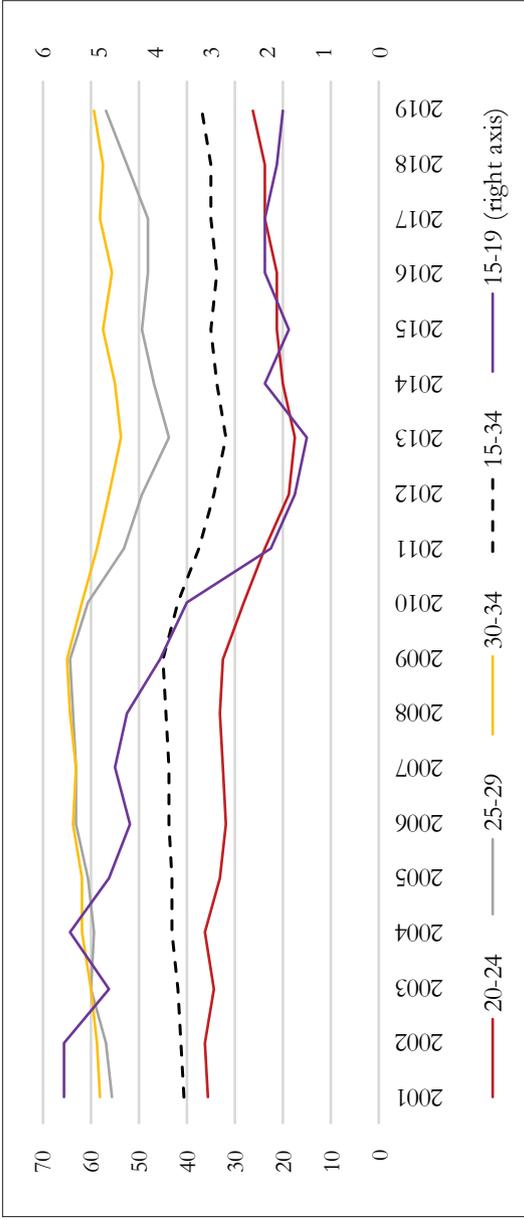
In the period 2001-2019, the employment rates of males were higher than those of females, regardless of the age subgroup (Figures 2.13 and 2.14). The difference in the employment rates was particularly large before the crisis, ranging, at their respective peaks, from approximately 30 per cent for the age group 25-29, to over 90 per cent for those aged 15-19. During the crisis this difference was reduced as male employment declined more than female employment, with substantial differences remaining, however. It should be noted that for both sexes the employment rates of the older subgroups (i.e., 30-34 and 25-29 years old) are higher compared to those of the younger groups (i.e., 15-19 and 20-24 years old) (Figures 2.13 and 2.14).

Figure 2.13
 Employment rate of young males (Greece, % of total population of each age group)



Source: Eurostat, Labour Force Survey. Author's calculations.

Figure 2.14
 Employment rate of young females (Greece, % of total population of each age group)



Source: Eurostat, Labour Force Survey. Author's calculations.

2.2.2 Educational attainment

The employment pattern described above refers to the entire population aged 15-34, regardless of their educational attainment, the only exception being the primary education graduates aged 15-19, whose employment rate was on a downward trend throughout the period 2001-2019. The employment rates of the other age subgroups increased during the period 2001-2008, followed a downward trend until 2013, and then a recovery (Table 2.1).

During the period 2009-2013, the employment rate of the active population aged 20-24 who had graduated from mandatory education, almost halved, declining from 60.9 per cent to 31.8 per cent. The decrease of the employment rate of the active population aged 25-29 of the same educational attainment was also very high, dropping from 69.5 per cent to 44.1 per cent. Finally, a significant drop from 76.0 per cent to 53.0 per cent was recorded for the employment rate of those aged 25-29, who had graduated from tertiary education (Table 2.1).

After 2013, the employment recovery was stronger for graduates of secondary and post-secondary, non-tertiary education aged 25-29, with their employment rate increasing from 46.5 per cent in 2013, to 59.2 per cent in 2019, and for the tertiary education graduates in the same age group, whose employment rate increased from 53.0 per cent in 2013 to 68.2 per cent in 2019 (Table 2.1).

Table 2.1
Employment rate by age and educational attainment (Greece, % of total population of each group)

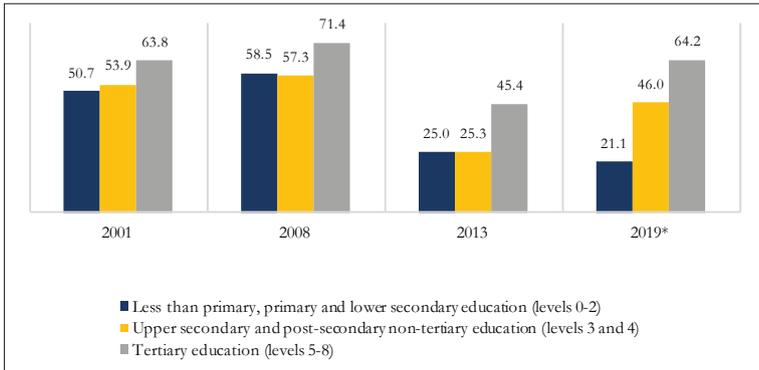
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
15-19	Less than primary, primary and lower secondary education (levels 0-2)	7.8	7.6	6.5	5.8	5.4	5.3	4.9	4.4	3.6	2.5	2.0	1.3	1.6	1.2	0.9	1.2	0.8	0.6	
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	9.9	10.3	10.4	12.7	11.1	10.6	11.8	10.7	10.7	7.9	5.3	5.1	4.3	5.2	4.6	6.3	6.5	7.2	7.8
20-24	Less than primary, primary and lower secondary education (levels 0-2)	59.0	60.5	62.6	60.4	62.6	66.1	64.0	60.9	51.5	43.4	38.0	31.8	35.0	36.6	36.1	35.6	32.1	31.5	
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	37.9	38.3	36.3	39.6	34.1	31.5	31.1	30.4	31.1	29.6	23.7	17.8	16.7	19.6	19.9	19.7	23.3	24.2	25.0
	Tertiary education (levels 5-8)	53.8	58.6	55.1	56.5	53.5	56.8	62.1	56.6	47.9	44.8	42.0	44.9	42.0	43.3	43.3	39.3	42.6	47.0	
25-29	Less than primary, primary and lower secondary education (levels 0-2)	65.8	67.4	69.5	67.3	69.0	72.0	71.1	70.7	69.5	65.3	57.3	50.2	44.1	47.0	47.2	46.6	50.7	49.0	49.8
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	68.8	69.9	69.9	70.5	71.5	71.7	71.2	72.0	70.3	66.8	59.2	51.7	46.5	47.1	52.6	55.0	55.4	57.8	59.2
	Tertiary education (levels 5-8)	70.9	72.4	72.7	74.5	73.4	75.9	75.1	76.0	71.9	62.3	57.6	53.0	56.0	57.9	60.3	59.6	63.8	68.2	
30-34	Less than primary, primary and lower secondary education (levels 0-2)	67.8	68.9	70.4	70.9	69.9	71.3	70.6	71.7	70.4	66.2	60.0	54.5	53.3	54.0	53.9	52.5	54.6	55.7	50.3
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	71.8	72.9	72.6	75.1	75.6	76.6	76.0	77.4	76.7	73.8	68.4	61.7	59.2	60.1	62.7	63.0	63.5	66.9	67.2
	Tertiary education (levels 5-8)	85.1	84.5	85.7	86.4	84.6	85.1	85.5	86.0	82.2	77.1	74.2	70.8	69.2	70.2	70.6	74.5	74.7	76.8	

Source: Eurostat, Labour Force Survey. Author's calculations.

The effectiveness of the transition from education and training to the labour market, can be measured through the recent graduates' employment rate i.e., by examining in different years, the employment rate of those who have completed their highest level of education in the previous three years. In Greece, the employment rate of the recent tertiary education graduates is higher than that of the graduates from lower levels of education. During the economic crisis, the employment rate of recent graduates 15-34 declined, regardless of the level of education. However, the differences between the employment rates of recent graduates from different levels of education, varied widely. For example, in 2019 the employment rate of recent tertiary education graduates (64.2 per cent) was 40 percentage points higher than the corresponding rate of the recent graduates from the primary and lower secondary education (21.1 per cent), and 18 percentage points higher than the employment rate of recent graduates from the upper secondary and post-secondary, non-tertiary education (46 per cent) (Figure 2.15).

Furthermore, recent graduates face more difficulties in finding jobs in comparison to the pre-crisis period, regardless of their level of education. Specifically, between 2008 and 2019, the employment rate of recent tertiary education graduates declined from 71.4 per cent to 64.2 per cent, that of upper secondary and post-secondary, non-tertiary education graduates, declined from 57.3 per cent to 46.0 per cent, and for the graduates of primary and lower secondary education, the employment rate declined from 58.5 per cent to 21.1 per cent (Figure 2.15).

Figure 2.15

Employment rate of recent graduates aged 15-34 (Greece, %)

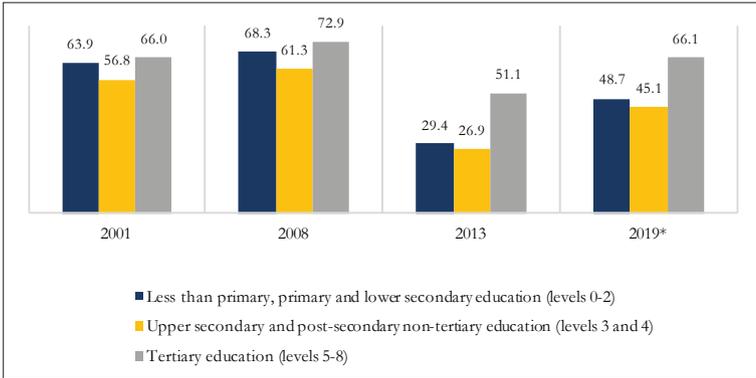
* For the recent graduates from the lowest levels of education (levels 0-2) data refer to 2018.

Source: Eurostat, Labour Force Survey.

The differences between the employment rates of recent male graduates from primary and secondary education and those who have graduated from the upper secondary and post-secondary, non-tertiary education is relatively small both before and after the crisis (Figure 2.16). On the other hand, the difference between the employment rates of young females who have recently graduated from different levels of education remain significant, before and after the crisis (Figure 2.17). The employment rates of both male and female recent tertiary graduates are higher than those of the less educated ones (Figures 2.16 and 2.17).

Figure 2.16

Employment rate of recent graduates aged 15-34 (Greece, % of males)

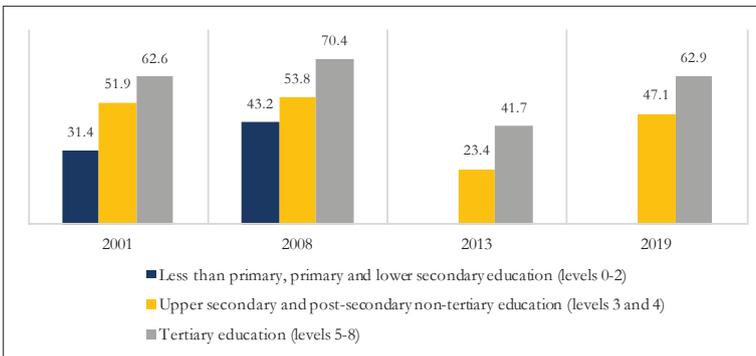


* For the recent graduates from the lowest levels of education (levels 0-2) data refer to 2017.

Source: Eurostat, Labour Force Survey.

Figure 2.17

Employment rate of recent graduates aged 15-34 (Greece, % of females)



Source: Eurostat, Labour Force Survey.

2.2.3 Youth employment by sector

Prior to the crisis the sector with the highest share of youth employment was “Retail trade” (14.1 per cent), while the sectors with the second and the third highest youth employment share, were “Public administration and defence; compulsory social security” (7.4 per cent) and “Food and beverage service activities” (7.3 per cent) (Table 2.2). By 2019 the share of youth employment in “Retail trade” had increased to 16.2 per cent, while the share of employment in the “Food and beverage service activities” doubled to 14.7 per cent, becoming the second biggest sector in terms of youth employment. “Crop and animal production, hunting and related service activities”, came in third, employing 6.2 per cent of youth employees.

Between 2008 and 2019, youth employment fell sharply in several sectors hit by the crisis, such as “Specialized construction activities”, where youth employment decreased from 6.3 per cent to 1.9 per cent, “Construction of buildings”, where there was a reduction from 3.4 per cent to 0.8 per cent, and “Financial service activities”, where youth employment dropped from 2.1 per cent to 0.7 per cent. On the other hand, between 2008 and 2019 youth employment increased strongly in the ICT sector. Specifically, employment increased in “Telecommunications”, from 0.9 per cent to 1.5 per cent, and in “Computer programming, consultancy and related activities”, from 0.5 per cent to 1.0 per cent. Nevertheless, as shown above, these numbers are well below those in retail trade and food and beverage services (Table 2.2). Among the top twenty sectors in terms of youth employment in 2019, are sectors which are relevant to logistics and transportation, such as “Water transport” (1.2 per cent) and “Warehousing and support activities for transportation”, where youth employment has increased compared to 2008 (Table 2.2).

Table 2.2

Employment of young people by sector (Greece, % of total employees, top twenty sectors, NACE rev. 2)

2008		2019	
47 Retail trade	14.1	47 Retail trade	16.2
84 Public administration and defence; compulsory social security	7.4	56 Food and beverage service activities	14.7
56 Food and beverage service activities	7.3	01 Crop and animal production, hunting and related service activities	6.2
43 Specialised construction activities	6.3	85 Education	5.8
01 Crop and animal production, hunting and related service activities	6.2	84 Public administration and defence; compulsory social security	5.0
85 Education	5.0	86 Human health activities	5.0
46 Wholesale trade	4.1	10 Manufacture of food products	3.7
86 Human health activities	3.6	69 Legal and accounting activities	3.5
41 Construction of buildings	3.4	55 Accommodation	3.0
69 Legal and accounting activities	3.1	46 Wholesale trade	2.8
45 Wholesale and retail trade and repair of motor vehicles and motorcycles	2.8	45 Wholesale and retail trade and repair of motor vehicles and motorcycles	2.4
10 Manufacture of food products	2.5	96 Other personal service activities	2.2
96 Other personal service activities	2.2	43 Specialised construction activities	1.9
64 Financial service activities	2.1	61 Telecommunications	1.5
71 Architectural and engineering activities	1.9	49 Land transport and transport via pipelines	1.5
55 Accommodation	1.8	71 Architectural and engineering activities	1.3
49 Land transport and transport via pipelines	1.7	50 Water transport	1.2

2008		2019	
25 Manufacture of fabricated metal products, except machinery and equipment	1.3	52 Warehousing and support activities for transportation	1.2
97 Activities of households as employers of domestic personnel	1.2	62 Computer programming, consultancy and related activities	1.0
18 Printing and reproduction of recorded media	1.2	93 Sports activities and amusement and recreation activities	0.9

Source: Hellenic Statistical Authority, Labour Force Survey. Author's calculations.

2.2.4 Youth employment by occupation

The distribution of youth employment by occupation is linked to the sectoral distribution of youth employment. Young people are mainly employed as “Sales workers” (16.1 per cent) and “Personal service workers” (15.4 per cent). These occupations are common in the “Retail trade” and “Food and beverage service activities” sectors. Furthermore, young people are employed as “General and keyboard clerks” (5.8 per cent), “Market-oriented skilled agricultural workers” (5.6 per cent) and “Teaching professionals” (4.6 per cent). Employment in the last two occupations is usual in the “Crop and animal production, hunting and related service activities” sector and in the “Education” sector, which are included in the top sectors in terms of youth employment. Youth employment in the occupation “Building and related trades workers, excluding electricians” shrunk from 5.25 per cent, in 2011, to 2.0 per cent in 2019, as a result of the collapse of the construction sector in Greece during the crisis. The distribution of employment across occupations is not differentiated significantly between the age subgroups.

Table 2.3

Employment of young people aged 15-34 by occupation (Greece, % of total employees, top ten occupations, ISCO 08)

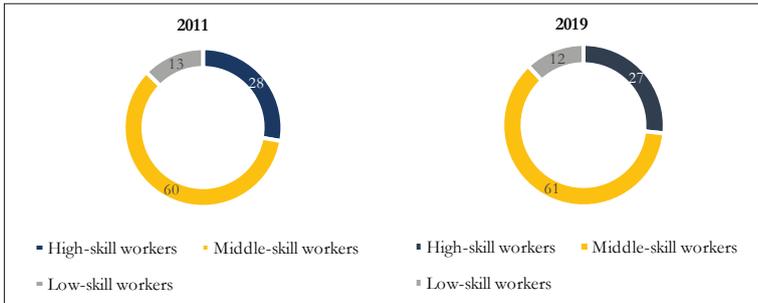
2011		2019	
52 Sales workers	15.69	52 Sales workers	16.1
51 Personal service workers	9.64	51 Personal service workers	15.4
61 Market-oriented skilled agricultural workers	6.02	41 General and keyboard clerks	5.8
71 Building and related trades workers, excluding electricians	5.25	61 Market-oriented skilled agricultural workers	5.6
23 Teaching professionals	4.92	23 Teaching professionals	4.6
41 General and keyboard clerks	4.38	42 Customer services clerks	4.1
83 Drivers and mobile plant operators	3.44	83 Drivers and mobile plant operators	3.7
72 Metal, machinery and related trades workers	3.33	33 Business and administration associate professionals	3.1
33 Business and administration associate professionals	3.18	26 Legal, social and cultural professionals	3.1
24 Business and administration professionals	3.15	21 Science and engineering professionals	2.7

Source: Hellenic Statistical Authority, Labour Force Survey. Author's calculations.

Despite the improvement observed in young people's skills, 61 per cent of young employees work in occupations, which require middle level skills such as "Sales workers" and "Personal service workers" (Figure 2.18). The creation of predominantly middle skills' jobs during the crisis, could explain the concentration of youth employment in such occupations (Katsikas and Filinis 2015).

Figure 2.18

Youth employment by occupations' level of skills* (Greece, %)



***High-skills workers** are those who work as “1 Managers, professionals, technicians and associate professionals”, “2 Professionals” and “3 Technicians and associate professionals” (ISCO 08).

Middle-skills workers are those who work as “4 Clerical support workers”, “5 Service and sales workers”, “6 Skilled agricultural, forestry and fishery workers” and “7 Craft and related trades workers” (ISCO 08).

Low-skills workers are those who work as “8 Plant and machine operators, and assemblers” and “Elementary occupations” (ISCO 08).

Source: Hellenic Statistical Authority, Labour Force Survey. Author's calculations.

The combination of a youth labour force which is becoming increasingly skilled, and the propensity of demand towards middle skills jobs, have led to an increasing share of youth being employed in jobs for which they are overqualified. Almost five out of ten young tertiary graduates have higher qualifications than those required by their jobs (Figure 2.18a). This vertical mismatch constitutes a waste of public and private resources since the employees' qualifications are underutilized. Furthermore, skills mismatch is linked to lower job satisfaction and wages compared to jobs corresponding to their actual qualifications (CEDEFOP 2012 and Amador and Vila 2013).

Figure 2.18a
Over-qualification rate of tertiary graduates aged 25-34 (Greece, %)



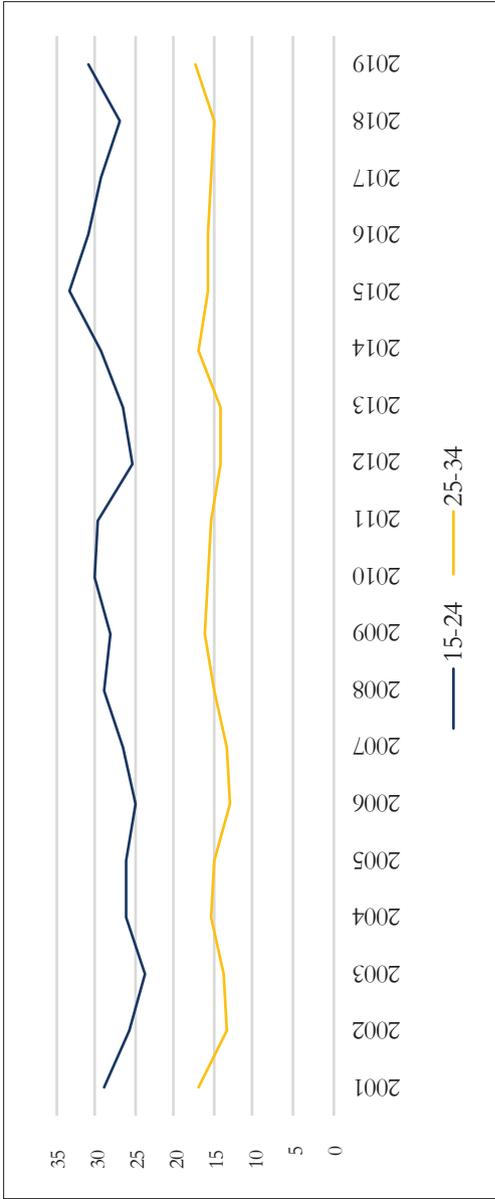
Source: <https://skillspanorama.cedefop.europa.eu/>

2.2.5 Temporary youth employment

Three out of ten employees aged 15-24 are on temporary contracts. Many youths are employed in sectors with significant seasonal fluctuations in activity, such as the food and beverage service activities and accommodation, in which temporary employment is widespread. Temporary employment, as well as part-time employment, could, in theory, function as a stepping stone from education to the labour market. Unfortunately, it does not work in this way in Greece; the share of young workers employed on a permanent contract, who in the previous year were employed on a temporary contract, is extremely low (European Commission, 2017: 81).⁴ This is more likely to happen in labour markets with restrictive employment protection legislation, since employers prefer to rotate employees in temporary jobs rather than hire new ones, avoiding the potential cost of layoff (Dendrinos 2014: 124). Moreover, such practices are facilitated when young people are employed in routine task jobs, where the training costs of new employees are low.

⁴ This share was below 5% in 2016 (European Commission, 2017: 81).

Figure 2.19
 Temporary youth employment (Greece, % of total employment, 15-24 and 25-34 years old)



Source: Eurostat, Labour Force Survey.

Temporary employment is less widespread among employees aged 25-34; the share of temporary employment in these age groups ranges around 15 per cent. Between 2018 and 2019, the share of temporary employment increased for all age subgroups; from 26.8 per cent to 30.7 per cent for employees aged 15-24 and from 15.1 per cent to 17.1 per cent for employees 25-34 (Figure 2.19).

It should be noted that most temporary employment is involuntary; 58.4 per cent of temporary employees aged 15-24 and 70.2 per cent of those aged 25-34 accept temporary jobs because they cannot find a permanent job (Table 2.4).

Table 2.4

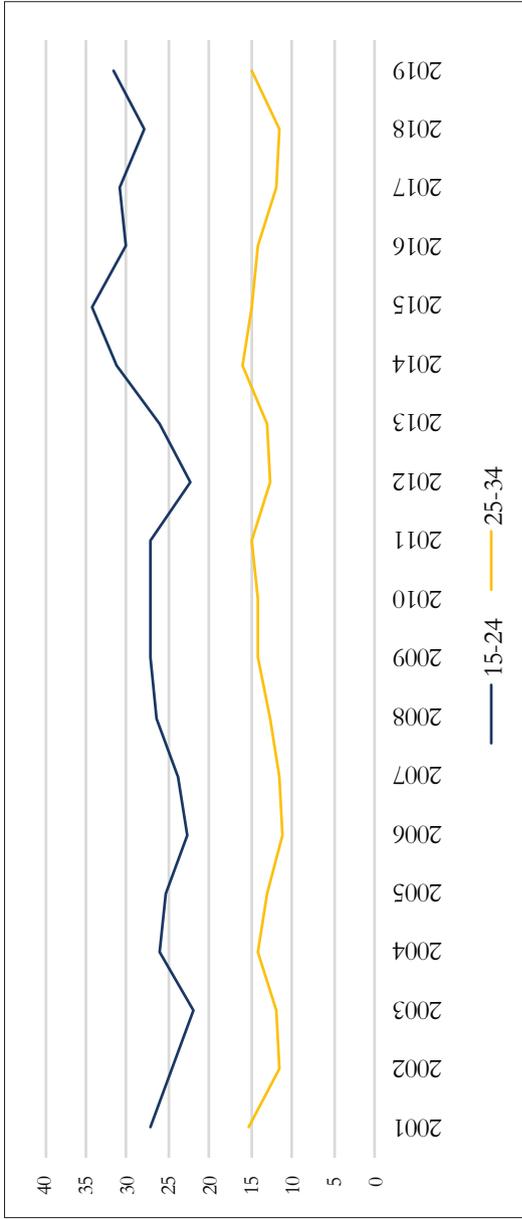
Main reason for having a temporary job (Greece, % of temporary employees, 15-24 and 25-34 years old)

		2001	2008	2013	2019
15-24	Could not find permanent job	63.8	58.7	61.9	58.4
	Did not want a permanent job	3.8	3.1	:	10.2
	In education or training	17.3	19.9	15.0	19.6
	Probationary period	5.0	5.3	6.9	:
	No response	10.1	13.0	13.4	10.8
25-34	Could not find permanent job	75.6	71.8	72.6	70.2
	Did not want a permanent job	3.1	1.7	:	5.8
	In education or training	6.2	7.8	5.6	8.2
	Probationary period	1.6	5.9	4.7	2.9
	No response	13.6	12.8	15.8	12.9

Source: Eurostat, Labour Force Survey.

The temporary employment of males aged 15-24 increased from 27.2 per cent of their total employment in 2001 to 31.6 per

Figure 2.20
 Temporary employment of young males (Greece, % of total employment, males 15-24 and 25-34 years old)



Source: Eurostat, Labour Force Survey.

cent in 2019, while the corresponding share for males aged 25-34 ranged around 14 per cent (Figure 2.20). Most of them are employed on temporary contracts because they cannot find permanent jobs (Table 2.5).

Table 2.5

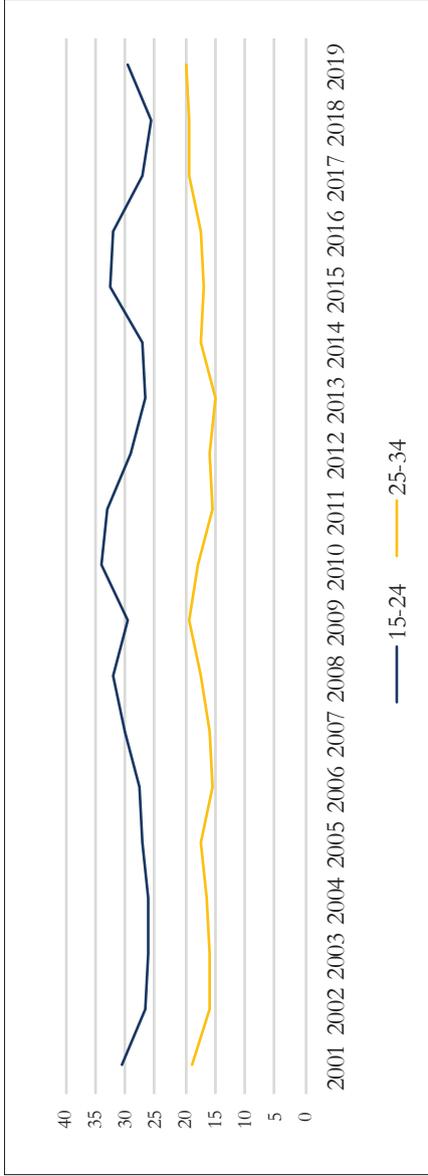
Main reason for having a temporary job (Greece, % of temporary employees, males, 15-24 and 25-34 years old)

		2001	2008	2013	2019
15-24	Could not find permanent job	56.2	59.9	64.2	59.1
	Did not want a permanent job				11.6
	In education or training	22.5	18.4	13.0	17.8
	Probationary period	5.1	6.8	:	:
	No response	12.6	12.4	12.7	9.9
25-34	Could not find permanent job	77.7	72.9	72.1	70.9
	Did not want a permanent job	:	1.9	:	4.9
	In education or training	6.4	7.0	7.6	6.1
	Probationary period	:	5.3	5.2	2.7
	No response	12.5	12.8	14.0	15.4

Source: Eurostat, Labour Force Survey.

Temporary employment is more usual among young female employees. The share of temporary employment of young females ranges around 30.0 per cent for those aged 15-24 and around 17.0 per cent for those aged 25-34 (Figure 2.21). Most of them are employed on temporary contracts because they cannot find permanent ones (Table 2.6).

Figure 2.21
 Temporary employment of youth females (Greece % of total employment, males 15-24 and 25-34 years old)



Source: Eurostat, Labour Force Survey.

Table 2.6

Main reason for having a temporary job (Greece, % of temporary employees, females, 15-24 and 25-34 years old)

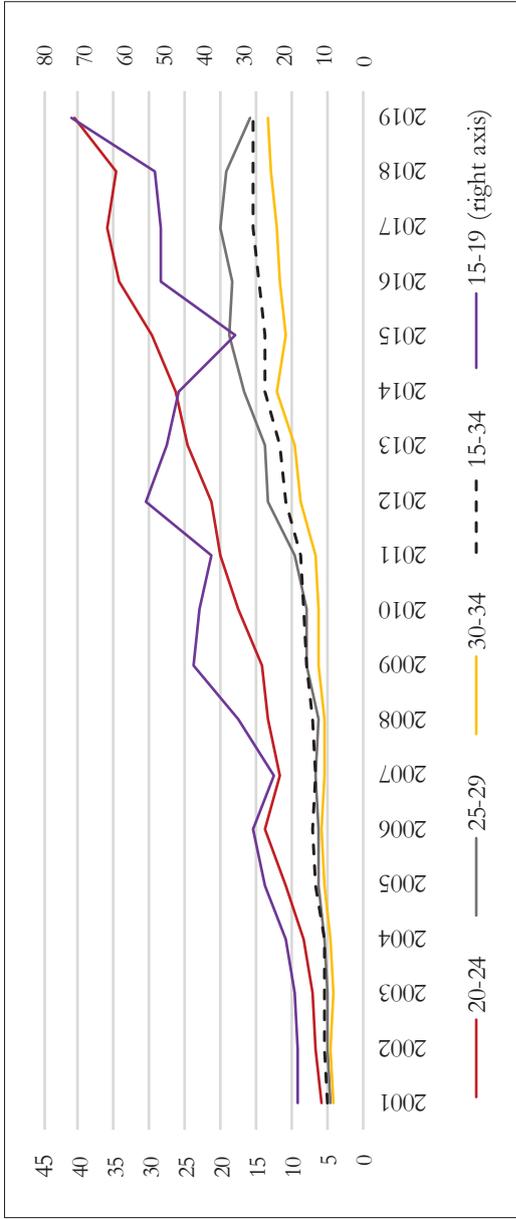
		2001	2008	2013	2019
15-24	Could not find permanent job	71.8	57.2	58.8	57.8
	Did not want a permanent job	:	:	:	8.7
	In education or training	11.7	21.6	17.7	21.6
	Probationary period	:	:	:	:
	No response	7.5	13.8	14.3	11.9
25-34	Could not find permanent job	73.2	70.8	73.2	69.6
	Did not want a permanent job	3.9	:	:	6.7
	In education or training	6.1	8.5	3.6	10.0
	Probationary period	:	6.4	4.2	3.1
	No response	14.8	12.8	17.7	10.7

Source: Eurostat, Labour Force Survey.

2.2.6 Part-time youth employment

Part-time youth employment increased sharply during the crisis. In 2001, the part-time employment of young people amounted to 4.9 per cent of their total employment and increased gradually to 7.9 per cent until 2008. During the next decade it almost doubled, reaching 15.5 per cent (2019). Part-time employment is more common among those aged 15-19 and 20-24 compared to those aged 25-29 and 30-34. The increase was more pronounced for the younger age groups. More precisely, the share of part-time employment of those aged 15-19 and 20-24 skyrocketed from 30.9 and 13.2 per cent in 2008 to 72.7 and 40.6 per cent in 2019 respectively (Figure 2.22).

Figure 2.22
Part-time youth employment (Greece, % of total employment)



Source: Hellenic Statistical Authority, Labour Force Survey. Author's calculations.

Part-time employment is involuntary for the most part, as was also the case with temporary employment. In 2019, seven out of ten young part-time employees said they would like to work in full-time jobs, but they were unable to find such jobs. The share of involuntary part-time employment is higher among those aged 25-29 (76.0 per cent) and 30-34 (75.0 per cent), compared to those aged 15-19 (39.9 per cent) and 20-24 (53.3 per cent).

Table 2.7

Main reason for having a part time job (Greece, % of part time employees, 15-24 and 25-34 years old)

		15-19	20-24	25-29	30-34	15-34
2010	Looking after children or incapacitated adults	0.5	1.9	7.0	15.2	7.9
	In education or training	37.1	27.0	5.3	0.9	12.0
	Own illness or disability	0.0	0.4	0.3	0.5	0.4
	Could not find a full-time job	43.7	56.2	70.1	61.8	61.8
	Other reasons	15.3	11.6	14.3	18.8	15.1
	Total	100.0	100.0	100.0	100.0	100.0
2013	Looking after children or incapacitated adults	0.0	0.4	5.3	6.9	4.7
	In education or training	39.5	16.5	3.6	2.1	7.1
	Own illness or disability	0.0	0.2	0.6	0.0	0.3
	Could not find a full-time job	41.8	72.7	73.3	71.5	71.3
	Other family or personal responsibilities	0.0	2.7	4.1	5.7	4.3
	Other reasons	16.7	7.6	10.3	10.4	10.0
	NA	2.0	0.0	2.8	3.4	2.4
	Total	100.0	100.0	100.0	100.0	100.0

		15-19	20-24	25-29	30-34	15-34
2019	Looking after children or incapacitated adults	0.0	0.2	1.3	5.6	2.5
	In education or training	41.8	30.4	9.3	1.1	13.4
	Own illness or disability	0.0	0.0	0.0	0.0	0.0
	Could not find a full-time job	39.9	53.3	76.0	75.0	68.0
	Other family or personal responsibilities	10.9	4.5	4.1	8.4	6.0
	Other reasons	5.2	9.6	7.6	7.0	7.8
	NA	2.2	2.0	1.7	2.9	2.2
	Total	100.0	100.0	100.0	100.0	100.0

Source: Hellenic Statistical Authority, Labour Force Survey. Author's calculations.

2.3 Youth unemployment

From 2001 to 2008 the number of unemployed young people declined from 343.3 to 234.0 thousand, but during the economic crisis it jumped to 644.5 thousand (2013). Over the years that followed, the number of unemployed decreased to 321.1 thousand, remaining at a higher level compared to the pre-crisis period (Figure 2.23).

The number of unemployed soared for all the age groups between 2008 and 2013, although with some differentiations, as the older age groups (25-34) experienced a bigger increase. More specifically, the number of unemployed aged 30-34 increased by 238.1 per cent, from 63.6 to 215.0 thousand, and those aged 25-29 increased by 177.4 per cent, from 88.6 to 245.8 thousand. The unemployed between 20-24 years of age increased to a lesser extent, by 123.5 per cent, from 68.1 to 152.2 thousand, while those aged 25-29, increased by 129.9 per cent, from 13.7 to 31.5 thousand.

From 2014 the number of the unemployed started to decrease. Between 2013 and 2019, the reduction of unemployment was

bigger for the younger age groups (15-24). Specifically, the number of unemployed aged 15-19 decreased by 66.3 per cent, from 31.5 to 10.6 thousand, while the number of unemployed aged 20-24 decreased by 52.8 per cent, from 152.2 to 71.8 thousand. The unemployed aged 25-29 were reduced from 245.8 to 122.4 thousand (a decline of 50.2 per cent), and those aged 30-34, by 45.9 per cent, from 215.0 to 116.3 thousand (Figure 2.23).

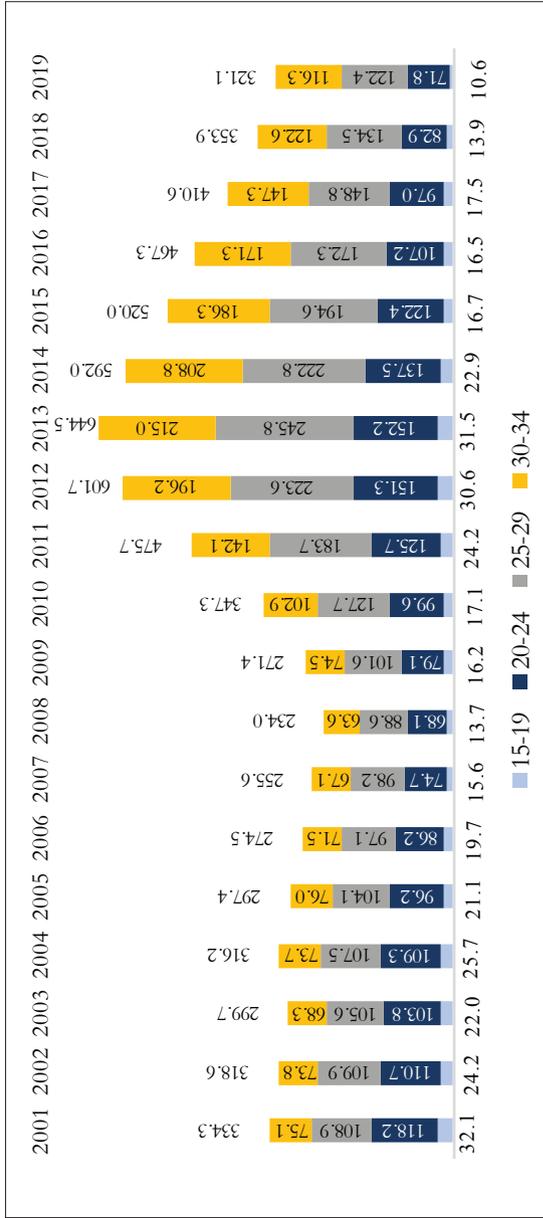
Summarizing, the number of unemployed in the older age sub-groups displayed a greater increase during the first five years of the crisis, while afterwards it was reduced to a lesser extent. This is probably because the younger unemployed (15-19 and 20-24 years old) are willing to accept transitional, atypical forms of work, while the older ones (25-29 and 30-34 years old) are seeking career jobs, for which the lack of experience constitutes a significant barrier (Filinis *et al.*, 2018).

Until 2008, the unemployment rate of those aged 15-34 ranged around 15 per cent (Figure 2.24). During the crisis, the youth unemployment rate increased sharply, reaching 40.4 per cent in 2013. From 2014 onwards, it began to decrease, receding to 25.5 per cent in 2019, remaining at much higher levels, however, compared to the pre-crisis period. The unemployment rates of those aged 15-19 and 20-24 reached even higher levels, at 72.2 per cent and 56.1 per cent respectively in 2013 (Figure 2.24).

The restrictive employment protection legislation, which discourages the hiring of young employees and protects the older and more experienced employees could explain the high youth unemployment rate in times of robust economic growth (European Central Bank 2014: 55). Taking into consideration the future lay off cost, employers are likely to suspend current hirings, especially of the less experienced work force.

Moreover, young employees have less experience and specific human capital which is relevant to firms' activities. Therefore, it is more likely to be laid off first (Last-In-First-Out Policy) when the

Figure 2.23
Unemployed young people, Greece (in thousands)



Source: Eurostat, Labour Force Survey.

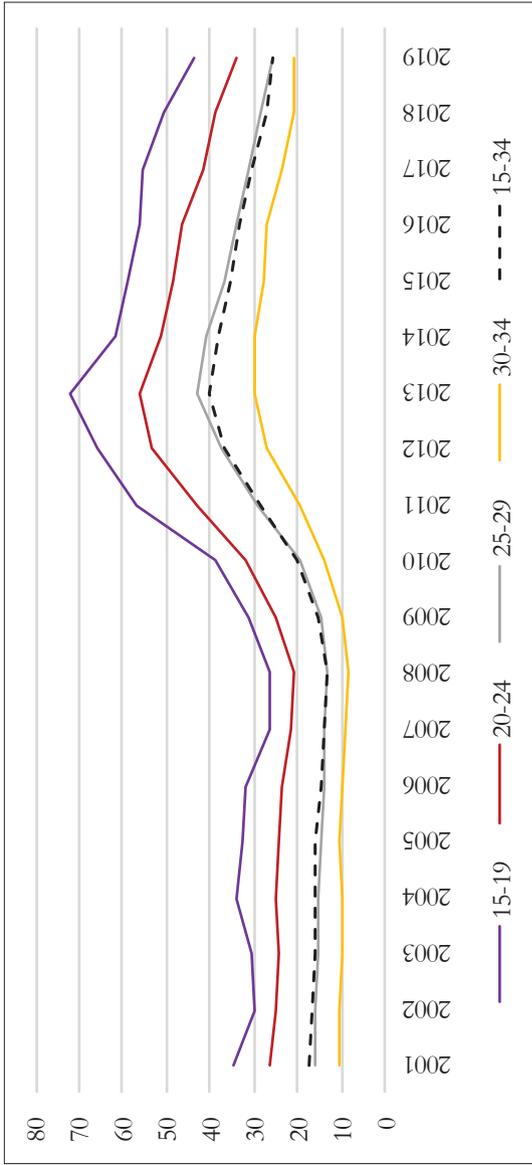
production activity shrinks. At the same time, it is more difficult to exit from unemployment since employers prefer to recruit more experienced and productive employees (Bell and Blanchflower, 2015). Moreover, employers have less information on whether new entrants with no work experience can meet the job requirements. On the contrary, experienced members of the labour force can provide employers with the necessary information through their experience credentials. This is more pronounced in the case of Greece, where the systems of education and training do not provide ready-to-use and reliable professional skills, and employers cannot easily and reliably estimate the potential productivity of job seekers based mainly on their educational credentials (Dendrinos 2014: 123). Thus, the young remain trapped in unemployment.

According to empirical findings, the minimum wage, and especially its sharp increases, cause employment losses among the young. These losses are reduced in labour markets with subminimum wage for the young and effective active labour market policies. On the other hand, the losses are higher in labour markets with restrictive employment protection legislation (Neumark and Wascher: 2004).

The institutional reforms implemented in the framework of the adjustment programmes of the Greek economy, such as the deregulation of the employment protection legislation and the introduction of the youth-subminimum wage, were intended to reduce youth unemployment.

Nevertheless, the impact of these reforms was not as expected. The reduction of the youth unemployment rate was not combined with a corresponding improvement in the youth employment rate, as shown in the previous section. Furthermore, the youth unemployment rate would be much higher if the phenomenon of brain drain had not taken place during the crisis. Finally, it should be mentioned that empirical analyses show that the impact of the sub-minimum wage on youth employment was relatively positive but not robust (Karakitsios 2016).

Figure 2.24
Youth unemployment rate (Greece, % of active population of each age group)



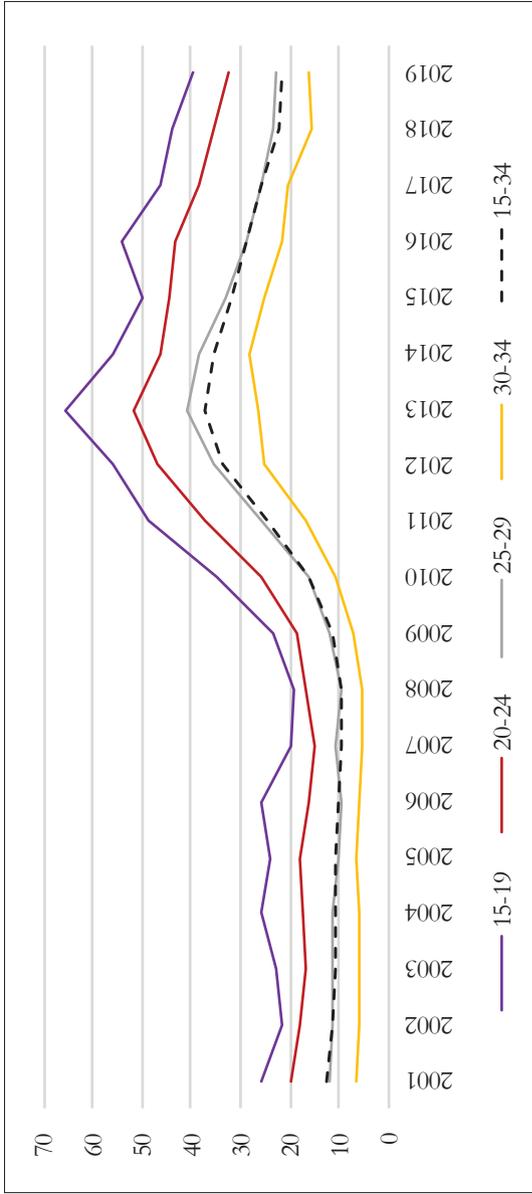
Source: Eurostat, Labour Force Survey. Author's calculations.

2.3.1 The gender dimension

Youth unemployment has hit females harder than males, over time. Before the crisis, the unemployment rate among young men ranged around 11 per cent (Figure 2.25), while that of women ranged around 22 per cent (Figure 2.26).

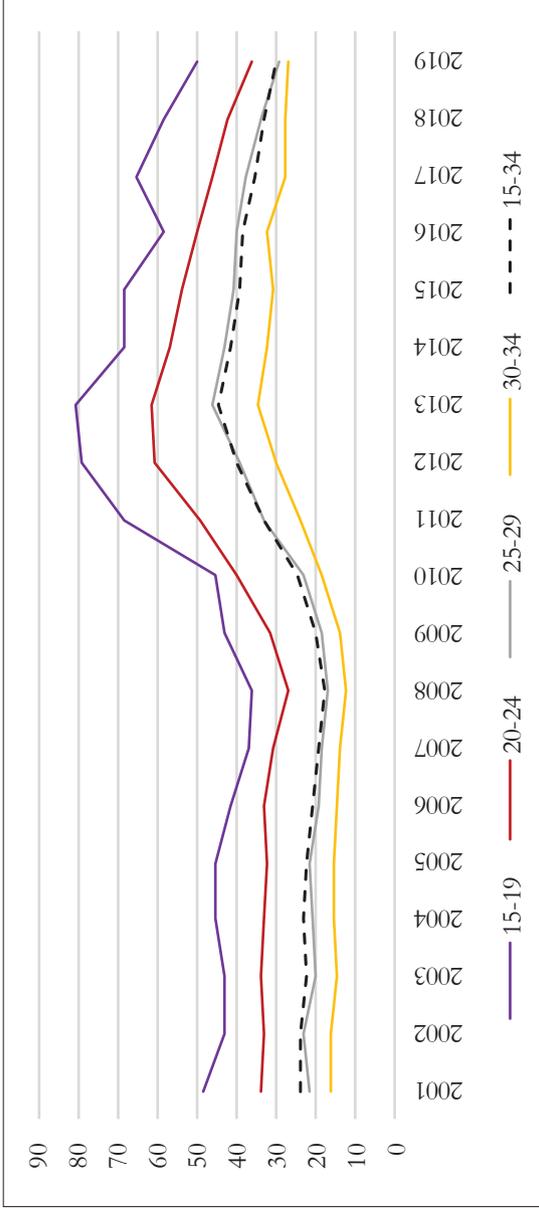
In 2013, eight out of ten women aged 15-19 years old, who were available and looking for work, could not find a job. In 2019, the unemployment rate of young males was 21.8 per cent, while that of young females was 30.0 per cent (Figures 2.25 and 2.26).

Figure 2.25
Unemployment rate of young males (Greece, % of active population of each age group)



Source: Eurostat, Labour Force Survey. Author's calculations.

Figure 2.26
 Unemployment rate of young females (Greece, % of active population of each age group)



Source: Eurostat, Labour Force Survey. Author's calculations.

2.3.2 Educational attainment

Before the crisis, the unemployment rate of the less educated youth was lower than that of the more educated ones, except for the 30-34 age group. In this group, the unemployment rate of the tertiary education graduates was lower than that of the upper secondary and post-secondary, non-tertiary education graduates. During the crisis, the situation changed. The unemployment rate of the less educated youth (i.e., those who have graduated from primary and lower secondary education) was higher than that of the more educated ones (i.e., those who have graduated from tertiary education), regardless of the age group.

More specifically, the unemployment rate of the primary and lower secondary education graduates aged 15-19 increased from 20.8 per cent in 2008 to 57.9 per cent in 2019, while the unemployment rate for youth who have graduated from the upper secondary and post-secondary non-tertiary education rose from 32.5 per cent in 2008 to 39.3 per cent in 2019 (Table 2.8).

Even though the unemployment rate of tertiary education graduates aged 20-24 remains higher than that of the upper secondary and post-secondary, non-tertiary education graduates, during the period 2008-2019 unemployment rose for both educational groups. Between 2008 and 2019, the unemployment rate of tertiary education graduates aged 20-24 increased from 23.8 per cent to 37.6 per cent, while for those who have graduated from upper secondary and post-secondary, non-tertiary education, it increased from 21.8 per cent to 31.4 per cent (Table 2.8).

Regarding the age group 25-29, the unemployment rate of tertiary education graduates increased from 15.5 per cent to 22.7 per cent, while for those who have graduated from upper secondary and post-secondary, non-tertiary education, it increased from 12.1 per cent to 27.6 per cent, and for those who had graduated from

primary and lower secondary education increased from 11.5 per cent to 33.0 per cent (Table 2.8).

In 2008 the unemployment rate of the age group 30-34 was close to 9 per cent, regardless of their educational attainment. By 2019, the unemployment rate of those who have graduated from primary and lower secondary education had increased to 31.6 per cent, the unemployment rate of those who have graduated from upper secondary and post-secondary non-tertiary education had increased to 23.1 per cent, while the unemployment rate of those who have graduated from tertiary education had increased to 16.8 per cent (Table 2.8).

Summarizing, before the crisis education did not seem to provide strong protection against unemployment, since the unemployment rate of less educated youth aged 15-29 was lower than that of those more educated. During the crisis, the picture changed, since the unemployment rate of the less educated youth was higher than that of more educated ones, in almost all cases. The group most vulnerable to the risk of unemployment are the less educated females, regardless of their age, demonstrating the difficulties that females face in entering the labour market.

Table 2.8
Unemployment rate by age and educational attainment (Greece, % of active population of each group)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
15-19	Less than primary, primary and lower secondary education (levels 0-2)	28.0	24.9	24.4	27.1	23.4	28.3	21.5	20.8	27.3	33.0	46.9	54.4	65.4	46.2	48.2	52.0	49.3	54.3	57.9
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	47.9	39.3	41.5	40.9	42.2	36.0	32.4	32.5	35.9	45.9	65.8	73.3	76.0	69.1	64.1	57.3	58.0	49.4	39.3
20-24	Less than primary, primary and lower secondary education (levels 0-2)	21.8	20.5	18.5	21.4	18.1	19.3	16.3	18.4	21.4	31.1	42.6	49.7	57.6	52.0	50.8	46.8	48.7	53.6	51.6
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	28.0	27.1	26.3	25.0	25.4	24.5	22.0	21.8	24.9	29.7	41.5	55.6	58.3	51.4	48.3	46.1	39.0	36.0	31.4
25-29	Tertiary education (levels 5-8)	29.1	22.4	28.0	29.9	32.6	29.7	31.6	23.8	30.2	42.8	48.3	51.8	48.3	49.4	48.8	46.1	48.4	40.8	37.6
	Less than primary, primary and lower secondary education (levels 0-2)	14.4	13.9	12.6	13.2	11.9	11.4	11.6	11.5	14.1	18.6	28.2	38.7	46.3	42.7	42.5	40.9	30.8	32.0	33.0
30-34	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	16.0	16.2	15.8	16.0	15.1	13.9	13.9	12.1	14.5	19.1	27.3	36.3	43.1	42.3	35.6	32.7	30.2	28.2	27.6
	Tertiary education (levels 5-8)	18.6	18.3	16.4	16.8	17.4	16.0	16.7	15.5	16.4	21.2	32.3	37.8	42.4	38.7	36.3	33.2	32.3	28.1	22.7
35-39	Less than primary, primary and lower secondary education (levels 0-2)	11.2	9.6	9.4	10.4	10.6	9.9	9.8	8.9	11.9	16.1	22.5	32.8	36.2	33.7	33.1	33.4	30.4	24.9	31.6
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	11.9	11.8	11.1	11.2	11.0	10.0	9.7	8.9	10.3	14.1	20.1	29.3	32.5	31.4	28.5	27.6	26.0	22.1	23.1
40-44	Tertiary education (levels 5-8)	7.8	8.7	7.7	8.0	9.5	8.0	8.0	8.3	12.5	17.9	21.6	24.4	27.1	25.5	24.1	20.3	19.4	16.8	

Source: Eurostat, Labour Force Survey.

2.3.3 Long-term youth unemployment

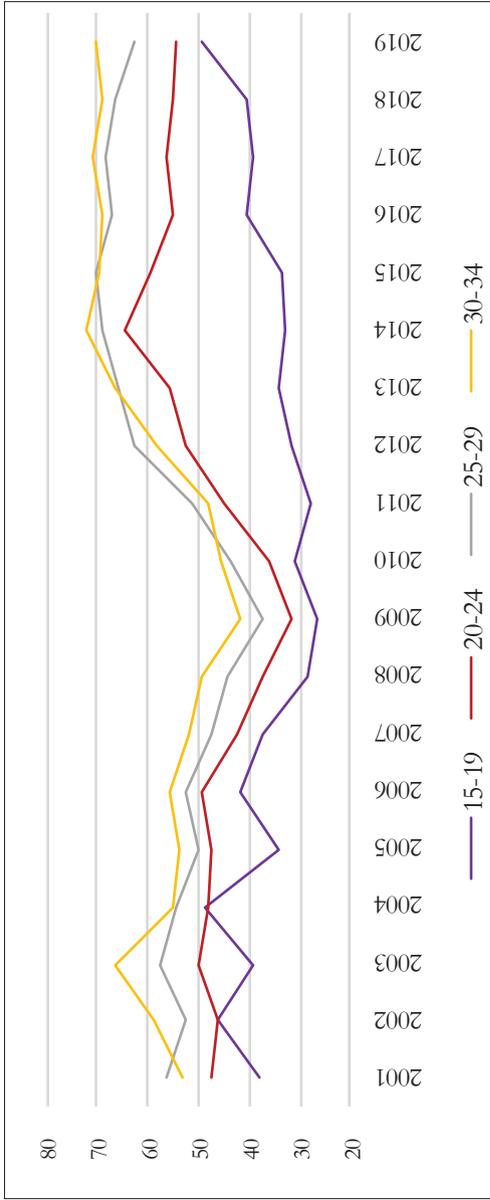
Long-term unemployment is higher among the young compared to older age groups. The lack of work experience is included among the main explanatory factors of long-term youth unemployment. Furthermore, the early experience of long-term unemployment may affect the lifelong employment and earnings prospects of the young, increasing the possibility of working in occupations requiring middle or low skills during their work life (Eurofound, 2017).

Moreover, long-term youth unemployment is affected by labour market institutions such as the employment protection legislation, the minimum wage, the level of coordination and the coverage of the collective bargaining system (Eurofound 2017). The labour market institutions which create frictions in the labour market, such as strict employment protection legislation, make the transition of the long-term unemployed to employment more difficult. On the other hand, active labour market policies, such as reskilling schemes or employment subsidies, improve the young jobseekers' opportunities for finding a job.

Before the crisis, the long-term youth unemployment rate of all age subgroups recorded a downward trend. From 2008, the share of young unemployed persons who remained in unemployment for more than a year increased, especially for those aged 30-34 and 25-29. In 2019, 62.6 per cent of the unemployed aged 25-29 and 70.4 per cent of unemployed aged 30-34 could not find a job despite looking for a period of more than twelve months (Figure 2.27).

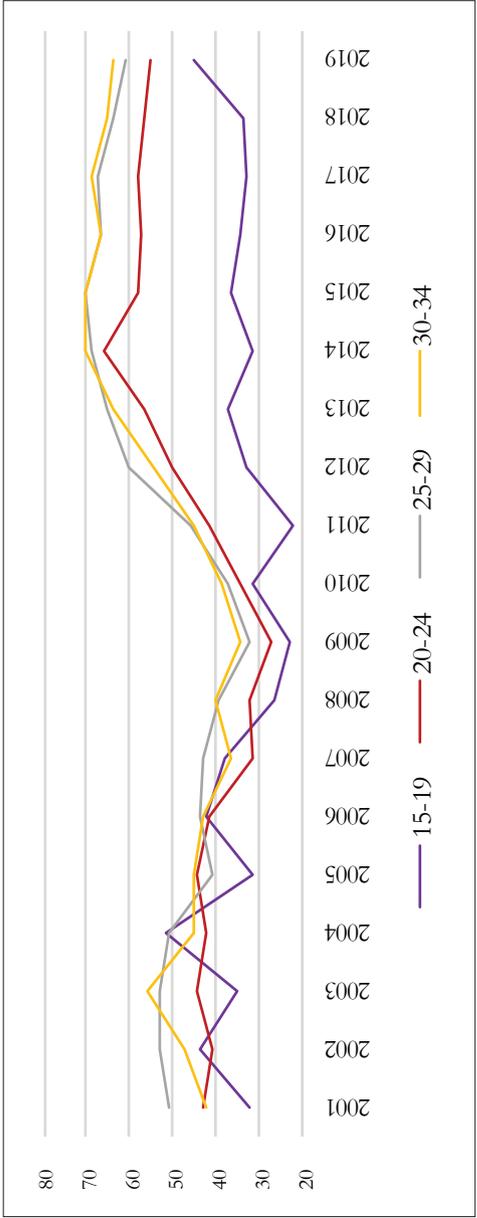
The picture is the same for both sexes: during the crisis, long-term unemployment increased more among the unemployed aged 25-29 and 30-34 compared to those aged 15-19 and 20-24. This may be because the long-term unemployed aged 15-19 and 20-24 can more easily exit the labour force, as previously described, since they do not face serious financial commitments, which is not the

Figure 2.27
 Long-term (12 months or more) youth unemployment (Greece, % of total unemployment)



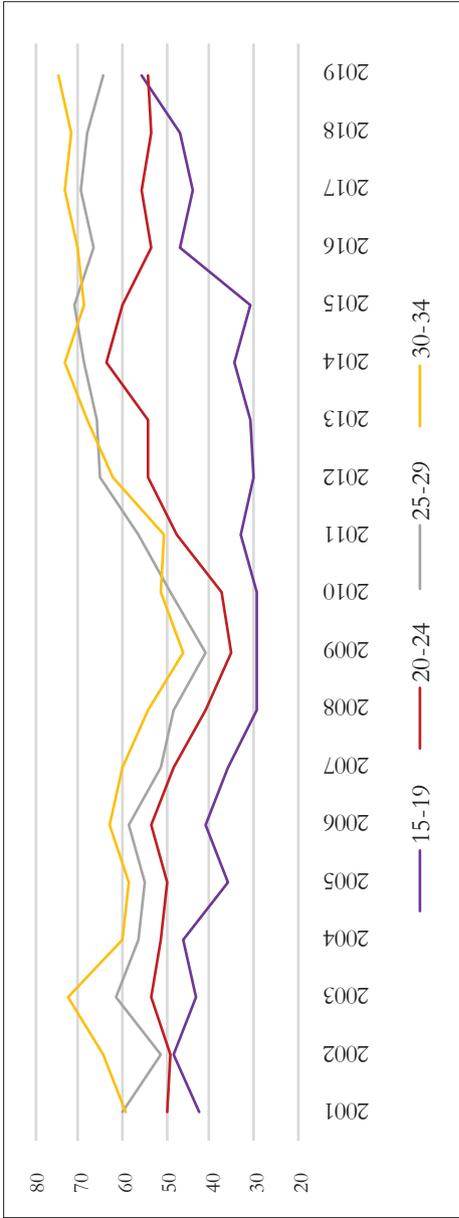
Source: Eurostat, Labour Force Survey.

Figure 2.28
 Long-term (12 months or more) male youth unemployment (Greece, % of total unemployment)



Source: Eurostat, Labour Force Survey.

Figure 2.29
 Long-term (12 months or more) female youth unemployment (Greece, % of total unemployment)



Source: Eurostat, Labour Force Survey.

case with those aged 25-34. Thus, since the younger unemployed exit the workforce, they are no longer considered unemployed.

Long-term unemployment affects young females harder than males (Figures 2.28 and 2.29). Females aged 30-34 were affected the most by long-term unemployment. In 2019, 74.6 per cent of unemployed females aged 30-34 remained at this status for more than a year. Unemployed women belonging to this age group face most difficulties in finding a job, as employers are reluctant to hire them because they fear that they will become pregnant.

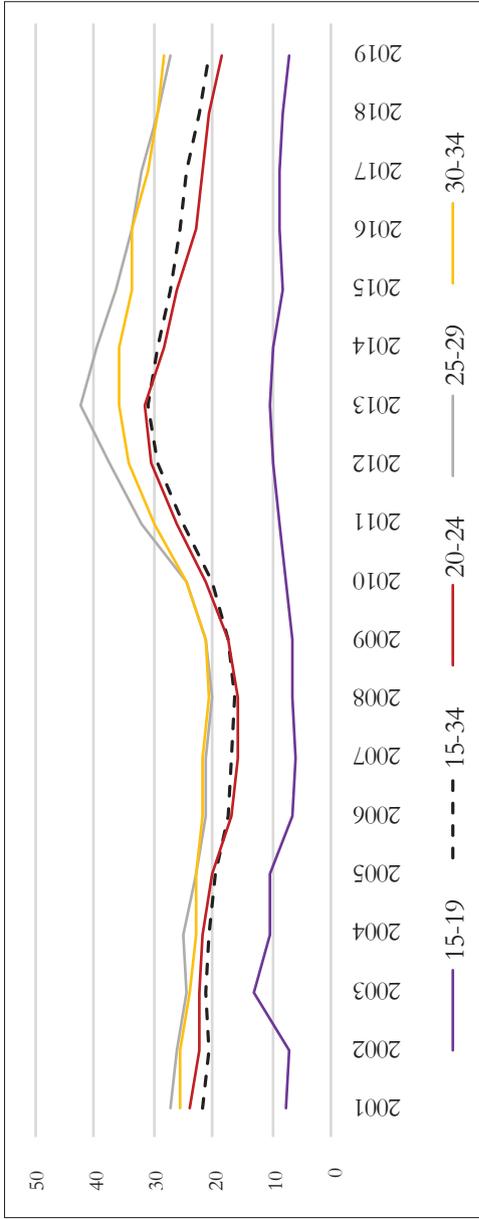
2.4 Youth not in employment, education or training (NEETs)

The share of young people not in employment, education or training (NEETs) measures the proportion of youth who are not employed and not involved in any further education or training schemes. Thus, it includes young people who are unemployed and those who are not actively seeking employment (Eurostat's definition).

The largest group of NEETs aged 15-29 consists of long-term unemployed. The second largest group is short-term unemployed. Approximately 10 per cent of NEETs aged 15-29 are in this situation due to family responsibilities or illness and disability (Eurofound, 2016:36). It should be noted that the financial situation of young NEETs in Greece is dire, since most of them do not receive benefits or other financial assistance (Eurofound, 2016).

The youth NEET rate soared during the economic crisis, reaching 30.8 per cent in 2013, but then started to decline. In 2019, the NEET rate was 20.7 per cent, meaning that almost 471,000 young persons were neither in employment nor in education or training. The NEET rate is higher for those aged 25-29 and 30-34 rather than those aged 15-19 and 20-24, most of whom are still in education or training (Figure 2.30).

Figure 2.30
Young NEETs (Greece, % of total population of age group)



Source: Eurostat, Labour Force Survey.

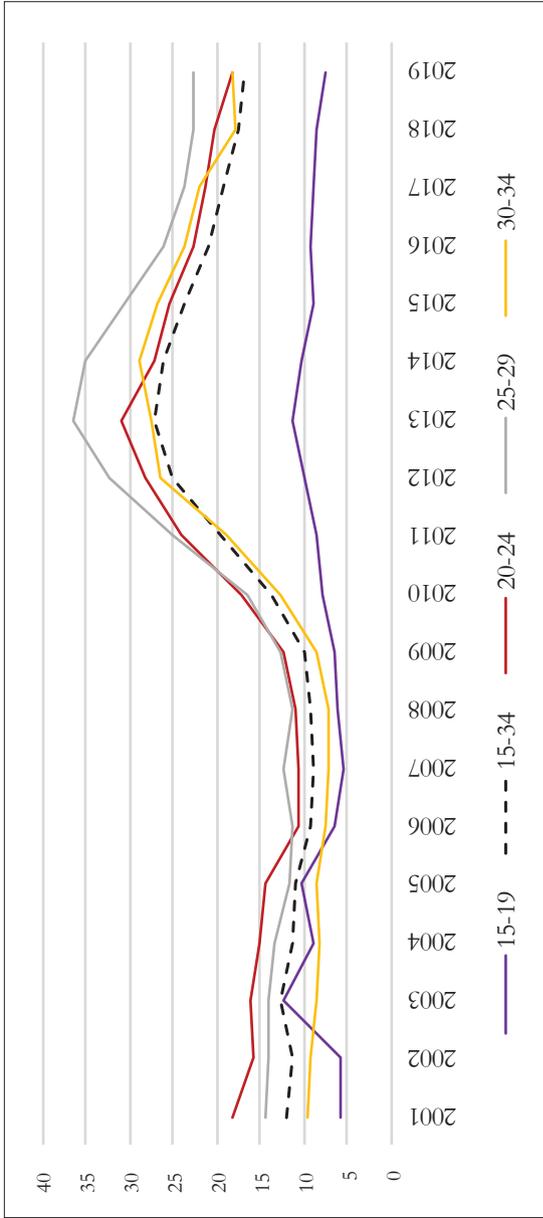
The NEET rate for young females has been higher than that of males, especially before the crisis (Figures 2.31 and 2.32). In 2019, the NEET rate of women aged 15-34 was 24.6 per cent, while that of men was 16.9 per cent. The same year, 38.2 per cent of females aged 30-34, i.e., more than 120.000 females, were not in employment, education or training.

The NEET rate of the less educated, aged 20-24, 25-29 and 30-34 years old remained higher than that of the other youth subgroups (Table 2.9). Furthermore, the NEET rate of primary and lower secondary education graduates increased more rapidly than that of the other subgroups. In 2019 one out of two less educated young people aged 20-34 years was not in employment, education or training. It should be noted that the NEET rate among the young and less educated females is even higher (Table 2.11).

More specifically, regarding the age group 15-19, the NEET rate of those who study in mandatory education (i.e., primary and lower secondary education) declined from 5.7 per cent in 2001, to 2.1 per cent in 2019, since fewer young people leave mandatory education. On the other hand, the NEET rate of those who have graduated from upper secondary and post-secondary, non-tertiary education increased from 12.9 per cent, in 2001, to 20.6 per cent, in 2019 (Table 2.9). The picture is the same for both sexes (Tables 2.10 and 2.11), with the only difference being the NEET rate for females aged 15-19 who have graduated from upper secondary and post-secondary non-tertiary education, which was already high in 2001 and increased to a lesser extent to 19.3 per cent in 2019 (Table 2.11).

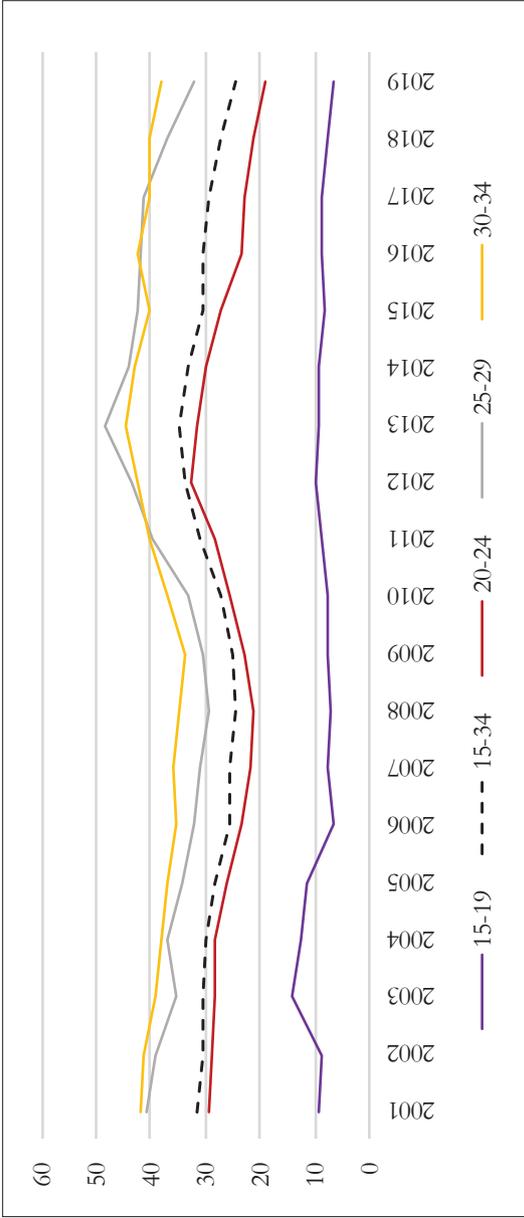
During the period 2001-2008, the NEET rates of youth aged 20-24, of all educational levels, decreased. After the crisis broke out it started to increase, peaking in 2013: 58.1 per cent for the primary and lower secondary education graduates, 24.2 per cent for the upper secondary and post-secondary non-tertiary education graduates and 45.4 per cent for the tertiary education

Figure 2.31
Young male NEETs (Greece, % of total population of age group)



Source: Eurostat, Labour Force Survey.

Figure 2.32
Young female NEETs (Greece, % of total population of age group)



Source: Eurostat, Labour Force Survey.

graduates. In 2019, the highest NEET rate was that of primary and lower secondary education graduates (51.3 per cent), the second highest that of tertiary education graduates (39.0 per cent) and the lowest was that of upper secondary and post-secondary, non-tertiary education graduates (13.9 per cent) (Table 2.9). This trend is the same for both sexes (Tables 2.10 and 2.11). It should be noted that in 2019 the NEET rate for females who have graduated from primary and lower secondary education was 63.6 per cent, which was the highest rate of the age group 20-24 (Table 2.11).

Regarding the age group 25-29, the NEET rate of the primary and lower secondary education graduates decreased from 34.9 per cent, in 2001, to 28.0 per cent, in 2008. It then started to increase, and it reached its highest value (54.9 per cent) in 2013. In 2019 the NEET rate of that group decreased to 48.2 per cent. The NEET rate of the upper secondary and post-secondary, non-tertiary education graduates followed the same path, but at lower levels, reaching 27.3 per cent in 2019. The NEET rate of tertiary education graduates ranged at even lower levels, reaching its lowest value in 2008 (17.1 per cent) and its highest in 2013 (40.5 per cent). In 2019, the NEET rate of this group was 23.0 per cent, the same as in 2008 (Table 2.9). Two issues must be noted regarding this age group (25-29): first, there is a minor difference between the NEET rate of male upper secondary and post-secondary, non-tertiary education graduates (21.6 per cent in 2019) and the corresponding rate of tertiary education graduates (20.7 per cent in 2019) (Table 2.10), and second, the NEET rate of females who have graduated from primary and lower secondary education (65.6 per cent in 2019) is the highest of the age group (Table 2.11).

The NEET rate of youth aged 30-34 who have graduated from primary and lower secondary education was 48.1 per cent in 2019, which is the highest of the period 2001-2019. The corresponding rate of youth 30-34 who have graduated from upper secondary and post-secondary, non-tertiary education was 26.7 per cent in 2001

and 30.7 per cent in 2019, having reached 38.7 per cent in 2013. The NEET rate of youth 30-34 who have graduated from tertiary education has ranged at lower levels: from 12.4 per cent in 2009 to 28.3 per cent in 2013, decreasing to 20.3 per cent by 2019 (Table 2.9). The NEET rate of males aged 30-34 who have graduated from primary and lower secondary non-tertiary education almost tripled during the period 2001-2019, increasing from 12.1 per cent in 2001, to 31.7 per cent in 2019. The NEET rates of male secondary and post-secondary, non-tertiary education graduates were 8.2 per cent, in 2001, the same as the rate of tertiary education graduates. Nevertheless, the NEET rate of the first group had increased to 19.5 per cent by 2019, while that of the second one had increased by much less, to 11.9 per cent (2019) (Table 2.10). The NEET rate of females aged 30-34 who have graduated from primary and lower secondary education increased from 53.7 per cent in 2006, to 66.0 per cent in 2018. In 2019, this rate was 65.3 per cent, while the corresponding rates of female graduates of secondary and post-secondary, non-tertiary education and of tertiary education were 45.0 per cent and 26.4 per cent respectively (Table 2.11).

Table 2.9
Youth NEETs by age and educational attainment (Greece, % of total population of each group)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
15-19	Less than primary, primary and lower secondary education (levels 0-2)	5.7	5.5	10.8	8.1	9.3	4.3	3.4	3.0	3.7	3.8	4.3	4.5	4.2	3.4	3.2	2.5	2.8	2.1	2.1	
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	12.9	11.4	19.4	16.3	14.2	12.8	15.0	17.5	16.3	20.2	21.8	25.7	25.9	26.1	22.4	24.3	25.3	24.3	20.6	20.6
20-24	Less than primary, primary and lower secondary education (levels 0-2)	37.3	34.5	32.4	34.2	32.1	29.1	28.0	31.1	34.0	42.5	50.1	53.1	58.1	56.4	54.3	50.4	52.0	55.2	51.3	51.3
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	19.7	18.6	19.3	17.8	16.7	12.1	11.0	10.9	11.9	14.4	18.4	23.5	24.2	21.5	19.8	17.6	16.2	15.5	13.9	13.9
25-29	Tertiary education (levels 5-8)	31.4	27.7	29.7	31.4	32.4	28.0	30.3	25.0	32.0	38.8	43.8	48.4	45.4	47.4	44.3	41.2	42.9	41.2	39.0	39.0
	Less than primary, primary and lower secondary education (levels 0-2)	34.9	33.6	31.3	32.4	30.0	26.7	28.0	28.0	29.8	34.2	42.0	48.5	54.9	51.5	51.9	51.7	46.5	47.3	48.2	48.2
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	25.3	25.1	23.7	24.0	21.6	20.5	20.2	17.9	19.0	22.1	28.1	33.9	38.5	37.8	31.7	30.8	29.4	26.9	27.3	27.3
Tertiary education (levels 5-8)	23.0	21.3	20.0	20.9	19.6	17.7	18.1	17.1	17.7	21.3	30.2	35.8	40.5	36.9	36.5	31.3	31.7	28.5	23.0	23.0	23.0

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
30-34	Less than primary, primary and lower secondary education (levels 0-2)	33.1	32.1	30.0	30.5	30.5	286	289	27.7	29.3	33.5	39.7	45.1	46.2	44.7	45.0	47.2	44.5	43.2	48.1
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	26.7	26.9	25.6	24.0	23.4	22.3	22.6	21.2	22.0	24.7	29.9	36.5	38.7	38.0	35.3	34.9	34.2	31.1	30.7
	Tertiary education (levels 5-8)	14.8	14.3	13.6	12.8	13.2	13.6	12.9	13.6	12.4	16.1	20.7	23.6	26.6	28.3	27.0	26.4	23.2	22.6	20.3

Source: Eurostat, Labour Force Survey.

Table 2.10

Youth male NEETs by age and educational attainment (Greece, % of total population of each group)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
15-19	Less than primary, primary and lower secondary education (levels 0-2)	4.5	4.4	10.2	7.2	8.9	4.0	2.7	2.9	3.4	4.1	4.1	4.6	4.9	3.6	3.2	2.3	2.6	2.0	2.3
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	10.4	10.2	18.6	13.3	14.1	14.0	14.5	17.1	16.3	20.4	23.3	27.0	29.6	27.9	22.5	25.9	26.7	25.9	22.1
	Less than primary, primary and lower secondary education (levels 0-2)	23.5	20.5	18.5	19.9	17.8	15.6	15.6	17.1	20.4	28.3	38.8	44.9	53.4	48.8	45.3	41.6	42.6	46.4	43.4
20-24	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	16.0	14.0	14.9	13.2	12.9	7.8	7.5	8.1	9.1	13.1	19.1	23.7	25.8	21.8	21.1	18.6	17.3	16.5	15.1
	Tertiary education (levels 5-8)	25.6	22.9	25.6	22.1	21.9	22.3	26.6	21.7	23.0	30.9	34.8	34.8	32.0	36.2	36.9	43.9	42.7	40.2	34.5

25-29	Less than primary, primary and lower secondary education (levels 0-2)	15.3	15.5	13.2	13.9	12.1	11.2	13.3	12.6	14.0	18.6	28.5	36.8	46.9	42.6	41.4	37.9	28.7	29.7	37.2
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	12.6	12.4	13.6	11.6	10.2	9.3	9.7	8.1	10.5	12.9	19.9	27.6	30.9	31.8	25.4	23.4	21.3	20.5	21.6
	Tertiary education (levels 5-8)	18.5	16.6	17.3	18.0	15.0	15.6	16.0	15.9	15.5	20.4	29.4	35.3	37.2	35.4	33.2	25.5	25.2	24.0	20.7
30-34	Less than primary, primary and lower secondary education (levels 0-2)	12.1	11.3	10.1	11.3	11.8	9.2	8.2	8.4	12.0	17.8	26.6	36.0	36.6	34.0	34.4	35.9	29.5	25.7	31.7
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	8.2	8.4	8.1	7.4	6.9	6.4	6.6	6.0	7.3	11.1	16.8	26.2	27.4	27.9	24.5	21.4	23.2	19.0	19.5
	Tertiary education (levels 5-8)	8.2	7.3	6.7	5.8	7.2	7.8	7.0	8.2	6.3	9.6	13.8	17.6	20.3	26.5	25.1	19.8	17.2	13.2	11.9

Source: Eurostat, Labour Force Survey.

Table 2.11

Youth female NEEts by age and educational attainment (Greece, % of total population of each group)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Less than primary, primary and lower secondary education (levels 0-2)	7.2	6.8	11.5	9.1	9.8	4.6	4.2	3.1	3.9	3.5	4.6	4.5	3.4	3.3	3.3	2.7	3.0	2.1	1.8
Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	15.1	12.4	20.2	18.9	14.3	11.8	15.4	17.9	16.2	20.1	20.5	24.4	22.8	24.3	22.2	22.8	24.0	22.8	19.3

DOCUMENTING THE STATUS OF YOUNG MEN AND WOMEN

20-24	Less than primary, primary and lower secondary education (levels 0-2)	58.6	58.0	56.5	56.2	57.1	54.2	50.2	55.2	57.3	64.9	67.5	65.8	65.8	69.6	68.7	62.2	65.8	70.9	63.6
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	22.9	22.9	23.3	22.2	20.3	16.2	14.6	13.7	14.6	15.7	17.8	23.3	22.5	21.1	18.3	16.5	15.0	14.5	12.5
	Tertiary education (levels 5-8)	35.1	30.3	32.2	36.4	38.1	31.0	32.1	26.7	36.2	42.2	47.2	54.7	52.3	53.7	48.0	40.0	43.0	41.6	40.7
25-29	Less than primary, primary and lower secondary education (levels 0-2)	64.9	61.3	59.2	60.8	56.6	53.8	53.9	55.7	58.3	61.6	65.7	70.1	68.5	69.4	74.2	75.7	73.0	71.5	65.6
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	38.1	38.3	34.5	36.3	33.5	31.8	31.0	28.2	28.9	32.7	38.3	42.0	47.7	44.9	39.6	41.5	40.4	36.2	35.9
	Tertiary education (levels 5-8)	26.2	24.6	22.0	23.0	23.0	19.3	19.8	18.0	19.2	21.9	30.7	36.2	43.0	38.0	38.9	35.7	36.2	31.5	24.7
30-34	Less than primary, primary and lower secondary education (levels 0-2)	57.2	56.3	53.0	54.5	55.0	53.7	57.7	55.8	54.2	58.0	59.5	59.0	61.4	60.3	61.4	63.2	66.0	66.0	65.3
	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	44.4	43.8	41.5	40.2	39.2	36.4	36.1	34.5	34.9	37.1	41.6	46.0	50.0	48.7	46.4	49.7	47.9	46.9	45.0
	Tertiary education (levels 5-8)	20.5	20.2	19.7	19.0	18.3	18.7	18.2	18.2	18.2	17.4	21.8	26.6	28.5	31.6	28.5	31.1	27.8	29.6	26.4

Source: Eurostat, Labour Force Survey.

2.5 Summary and conclusions

The situation of young people in the labour market has deteriorated in the last twenty years. The active population aged 15-34 has been substantially reduced, but the labour force participation rate declined to a lesser extent, due to the almost proportional reduction of the population in the same age brackets. The population declined due to adverse demographic trends and the fact that the immigration balance became negative during the crisis, as many young people migrated abroad.

The number of labour market participants aged 15-24 decreased more rapidly than that of those aged 25-34. The lower participation of the younger age groups in the labour force could be explained by the fact that they do not face significant financial commitments and their parents may be willing to support them for as long as they are out of work, creating incentives for exit from the labour market. In Greece youth rely heavily on parental assistance, which strongly affects their labour market choices.

Also, in times of crisis, the “opportunity cost” of education declines, especially for the younger age groups without financial commitments. Thus, young people preferred to stay in the education and training systems, rather than enter the labour market, leading to a reduction of the number of young labour market participants, but also to the improvement of their qualifications, since the active young population who has graduated from higher education has increased substantially during the last years.

Moreover, the labour force participation rate of young males remained higher than that of females. Since 2001, the participation of females aged 15-24 in the labour force has declined, while the participation of those aged 25-34 has increased. This reflects the increasing preference of young females (15-24) to remain in the education system and study in tertiary education, rather than enter the labour market. The increase of tertiary education departments

which females seem to prefer played a significant role in this direction.

The youth employment rate, across all age subgroups, followed the same pattern: relative stability during the period 2001-2008, followed by a sharp fall between 2009-2013 and a gradual recovery from 2014 to 2019. However, in 2019 the employment rates of all age subgroups were much lower in comparison to the pre-crisis levels. This pattern is the same for both sexes, but the employment rate of males remained above that of females. Youth employment is very sensitive to economic fluctuations, since young people are more likely to hold atypical forms of work (temporary or part-time employment), they are less protected by the institutional framework, and they have less experience than the older employees. Thus, they are more likely to be the first who lose their jobs during recessions and the last to find new ones during recoveries.

The employment pattern described above applies to the entire population under examination, regardless of their educational attainment level, with the exception of primary education graduates aged 15-19, whose employment rate was on downward trend throughout the period 2001-2019. The employment of those aged 25-29, who have graduated both from secondary and post-secondary, non-tertiary education, and tertiary education recovered more rapidly, during the period 2014-2019. Regarding the tertiary education graduates, it seems that the employment of females aged 25-29 and 20-24 years recovered faster, during the same period.

Tertiary education's recent graduates enter the labour market more successfully than the recent graduates from the other levels of education, meaning that the probability of finding a job for the former is higher than for the latter. Nevertheless, often the qualifications of tertiary education graduates do not match their jobs' requirements. Almost five out of ten young employees who have graduated from tertiary education, have higher qualifications than those required to fill their jobs.

The incidence of overqualification is related to the distribution of youth employment between sectors and occupations. Youth employment is concentrated in retail trade, tourism and food and beverage service activities. Despite the increase of youth employment in the ICT sector, it remains well below that in the aforementioned sectors. At the same time, youth employment shrank in sectors which were severely affected by the crisis, such as the construction sector. Regarding the occupational distribution of youth employment, young people are mainly employed as sales and personal service workers, occupations which are more usual in the retail trade and in the food and beverage service activities. Therefore, two opposite trends are identified in the youth labour market: the improvement of the qualifications of the youth labour force is combined with the concentration of their employment in sectors which are not knowledge intensive.

Atypical forms of work are quite common among young people. A significant proportion of young employees are employed under temporary contracts, but most of them are involuntary temporary employees, as they cannot find permanent jobs. Temporary employment is more usual among young female employees, compared to male ones. The part-time employment among young employees increased sharply during the crisis. As with temporary employment, part-time employment is also involuntarily for the most part.

Temporary employment, as well as part-time employment, could function as a stepping stone from education to the labour market. Unfortunately, these forms of employment do not work in this way. In labour markets with restrictive employment protection legislation, as was the Greek one before its reform, employers have incentives to substitute typical forms of employment with atypical ones, especially in routine tasks' jobs, where the training costs are low. That is, employers prefer to rotate employees in temporary jobs rather than hire new ones, avoiding the potential layoff cost.

Thus, only few temporary employees remain at their jobs after the termination of their employment contract.

Before the economic crisis, the number of young unemployed people was falling steadily, but it increased sharply between 2009 and 2013. During the next years, their numbers again gradually declined but have remained at a higher level compared to the pre-crisis period. Furthermore, the number of unemployed aged 25-34 increased more rapidly during the first five years of the crisis, and in its aftermath, declined at a slower pace, in comparison to the number of unemployed aged 15-24. This may be explained by the fact, that the younger unemployed are often looking for transitional jobs even under atypical forms of work, while the older ones are looking for career jobs, for which they may not be selected.

The unemployment rate of youth (15-34) increased sharply during the crisis and from 2014 started to decrease but remained at much higher levels compared to the pre-crisis period. The unemployment rates of the younger age subgroups (15-19 and 20-24) ranged at higher levels than those of the older age subgroups (25-29 and 30-34). Young employees are more likely to be laid off first when the production activity shrinks and to be hired last when the activity recovers, since they are considered less productive than the older ones.

Before the crisis, the unemployment rate of the less educated young people was lower than that of the more educated, apart from the 30-34 age group. After the crisis, the picture changed, since the unemployment rate of the less educated is higher than that of the more educated, regardless of the age group. The most vulnerable group to the risk of unemployment are the less educated females, regardless of their age, demonstrating the difficulties women face in entering the labour market.

The institutional reforms implemented during the period 2010-2014, such as the deregulation of the employment protection legislation and the introduction of the youth-subminimum wage, aimed to reduce youth unemployment. Nevertheless, the reduction of

the youth unemployment rate was not combined with a corresponding improvement in the youth employment rate. Furthermore, the youth unemployment rate would be much higher if the phenomenon of brain drain had not taken place during the crisis. Finally, the introduction of the sub-minimum wage did not seem to significantly affect youth unemployment.

The long-term youth unemployment rate followed a downward trend before the crisis. From 2008, the share of the unemployed who remained in unemployment for more than a year increased, especially in the older age subgroups (25-29 and 30-34). It is likely, that the long-term unemployed aged 15-19 and 20-24 can more easily stop looking for a job, exiting from the labour force, as they do not face financial commitments to the same degree as those aged 25-34. With the exit from the labour market, they are no longer recorded as unemployed.

A lack of work experience is one of the main explanatory factors for long-term youth unemployment. Thus, long-term unemployment is higher among young people compared to older age groups. Moreover, long-term unemployment affects young females more, compared to young males, probably because employers are reluctant to hire them, particularly when they are close to maternity. The institutions which create frictions in the labour market, such as the strict employment protection legislation, and the lack of institutions designed to eliminate frictions, such as the active labour market policies, make the transition of the long-term unemployed to employment more difficult.

Finally, the share of young people who are neither in employment nor in education and training (NEETs) aged 15-34 soared during the economic crisis. In Greece, most of the NEETs are mainly long-term and short-term unemployed rather than persons who have left the labour market to assume family responsibilities or who face illness or any form of disability. The share of females who are included in the NEETs is higher than that of males.

Appendix. Mapping the profile of overqualified youth

Kyriakos Filinis and Apostolos Fasianos

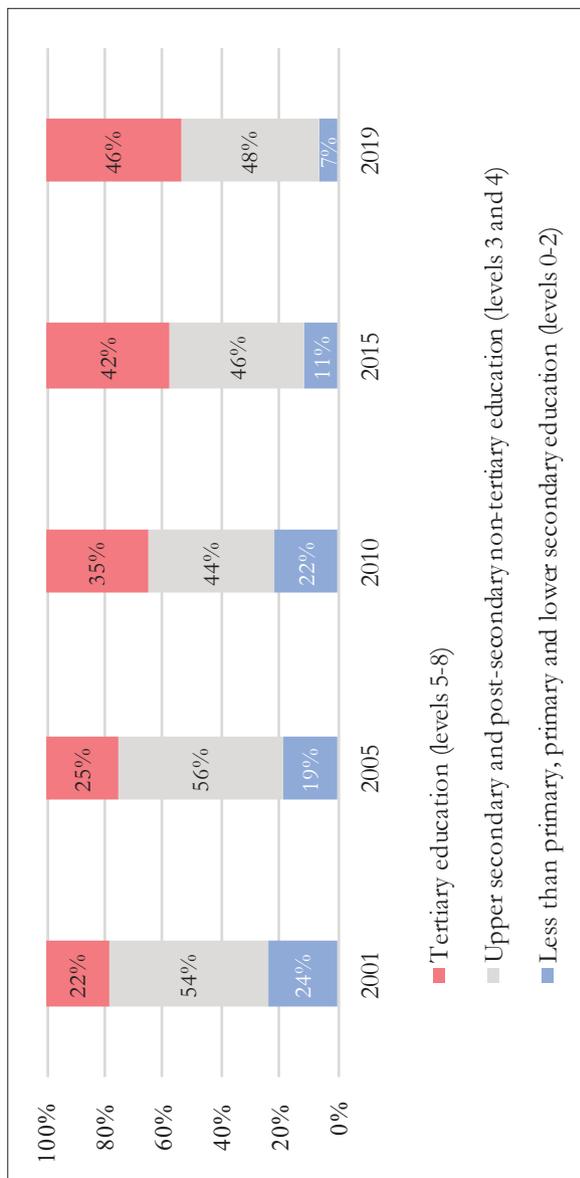
As described in the chapter above, the educational qualifications of the economically active youth have improved substantially over the past two decades. Focusing on employed youth, we observe that the share of employed young people, aged 25-29, who have graduated from higher education increased from 22 per cent in 2001, to 46 per cent in 2019. During the same period (2001-2019), the shares of employed youth, aged 25-29, who have graduated from upper secondary and post-secondary, non-tertiary education, and from less than primary, primary and lower secondary education, decreased from 54 to 48 per cent and from 24 to 7 per cent respectively (Figure 2A.1). The same trend is observed for the age group 30-34, as the share of employed tertiary education graduates increased from 28 per cent in 2001, to 48 per cent in 2019, while the share of employed youth with primary education credentials shrank from 28 per cent in 2001, to 12 per cent in 2019 (Figure 2A.2).

On the other hand, as also demonstrated in the preceding analysis, youth employment remained concentrated on occupations which require a middle level of skills. The combination of a youth labour force which improves its educational qualifications, and the propensity of demand towards middle skills jobs, have led to an increasing rate of overqualified youth. In 2019, almost five out of ten employed young tertiary education graduates had higher qualifications than those required by their jobs.

Overqualified youth is not a problem only for the Greek labour market. In the EU, in 2019, 25 per cent of young employees who were tertiary education graduates, were overqualified (Skills Panorama, Cedefop). However, as noted above, in Greece the share of overqualified youth was substantially higher.

In this part of the report, we employ an econometric model to identify the employed young tertiary education graduates who

Figure 2A.1
Employment by educational attainment (25-29, Greece, %)



Source: Eurostat, Labour Force Survey.

Figure 2A.2
Employment by educational attainment (30-34, Greece, %)



Source: Eurostat, Labour Force Survey.

are more likely estimate the job market outcome for different employed graduates using a maximum likelihood Probit model. The model specification is the following:

$$\Pr(y = 1|x_j) = \int_{-\infty}^{a+\beta x} \frac{1}{\sqrt{2\pi}} \left(\frac{t^2}{2}\right) dt \tag{1}$$

The dependent variable takes the value of 1 if the employed person is overqualified and 0 otherwise. Overqualified are employed young people, aged 25-34, who have graduated from higher education (ISCED 6: Bachelor or equivalent level or ISCED 7: Master’s or equivalent level) and are not employed in high-skill occupations (ISCO 08: 1: Managers, 2: Professionals and 3: Technicians and associate professionals) (CEDEFOP). The predictors of overqualification (i.e., the x vector) include the age group of the employed, their gender, their family status, as well as the field of completed education, the employment sector, and the year under examination.

We used the Labour Force Survey data, released by the Hellenic Statistical Authority on a quarterly basis (Q1/2011-Q4/2019). Table 1 below presents the results of the estimation.

Table 2A.1

Estimating the probability of young tertiary education graduates being overqualified

	Differences in probabilities	P> z
1. Age (25-29)		
30-34	-0.0866742	0.000
2. Gender (Male)		
Female	0.0527912	0.000
3. Family status (Single)		
Married	0.0380478	0.000
Widowed	-0.0811498	0.123

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Divorced or legally separated	0.0241564	0.510
4. Field of completed education (General programmes)		
Teacher training and education science	0.1820902	0.090
Humanities, languages, and arts	0.3205527	0.003
Social sciences, business, and law	0.1830249	0.085
Science, mathematics and computing, Life science, Physical science, Mathematics and statistics, Computer science and use	0.1761383	0.098
Engineering, manufacturing, and construction	0.17886	0.092
Agriculture and veterinary	0.2965847	0.006
Health and welfare	0.061391	0.564
Services	0.4111679	0.000
Unknown	0.4348311	0.008
5. Economic activity (Education)		
Agriculture, forestry, and fishing	0.8919107	0.000
Mining and quarrying	0.4840084	0.000
Manufacturing	0.4616153	0.000
Electricity, gas, steam, and air conditioning supply	0.4732613	0.000
Water supply; sewerage, waste management and remediation activities	0.2540558	0.000
Construction	0.3931781	0.000
Wholesale and retail trade; repair of motor vehicles and motorcycles	0.7164912	0.000
Transportation and storage	0.4298574	0.000
Accommodation and food service activities	0.8191566	0.000
Information and communication	0.2748919	0.000
Financial and insurance activities	0.308337	0.000
Real estate activities	0.2775235	0.001
Professional, scientific, and technical activities	0.0511709	0.000
Administrative and support service activities	0.6165224	0.000
Public administration and defence; compulsory social security	0.6477081	0.000
Human health and social work activities	0.1392283	0.000
Arts, entertainment, and recreation	0.2407044	0.000
Other service activities	0.3683574	0.000
Activities of households as employers;	0.9569007	0.000

Activities of extraterritorial organisations and bodies	0.3190124	0.000
6. Year (2011)		
2012	0.0213154	0.05
2013	0.0543449	0.000
2014	0.0805816	0.000
2015	0.0753811	0.000
2016	0.0849265	0.000
2017	0.0872963	0.000
2018	0.1412883	0.000
2019	0.1632843	0.000

Notes: Base variables are in parentheses. Differences statistically significant at 5%. N=51,401

The results show that for employed, young tertiary education graduates:

- Those aged 30-34 have a lower probability of being over-qualified (by 8.7 per cent) than those aged 25-29.
- Females have a higher probability of being overqualified (by 5.3 per cent) than males.
- Those married have a higher probability of being over-qualified (by 3.8 per cent) than singles.
- Those who have studied “Humanities, languages and arts”, “Agriculture and veterinary”, and “Services” (sports, security services -military- transport services and other) have a higher probability of being overqualified (by 32.1, 29.7 and 41.1 per cent respectively) than those who have completed “General Programmes” studies.
- Those who work in “Agriculture, forestry and fishing”, “Accommodation and food service activities”, and “Wholesale and retail trade” have a higher probability of being overqualified (by 89.2, 81.9 and 71.6 per cent respectively) than those who work in “Education”. On the

other hand, those who work in “Professional, scientific and technical activities” “Human health and social work activities”, “Arts, entertainment and recreation”, “Water supply; sewerage, waste management and remediation activities”, “Information and communication”, “Real estate activities”, and “Financial and insurance activities”, while also more likely to be overqualified than those employed in “Education”, have lower probabilities of this occurring compared to the other sectors.

- After 2011, the probability of young tertiary education graduates being overqualified (compared to 2011) follows an upward trend, reaching its highest levels in 2018 (14.1%) and in 2019 (16.3%).

YOUNG WOMEN IN THE GREEK LABOUR MARKET

Berry Lalioti and Daphne Nicolitsas



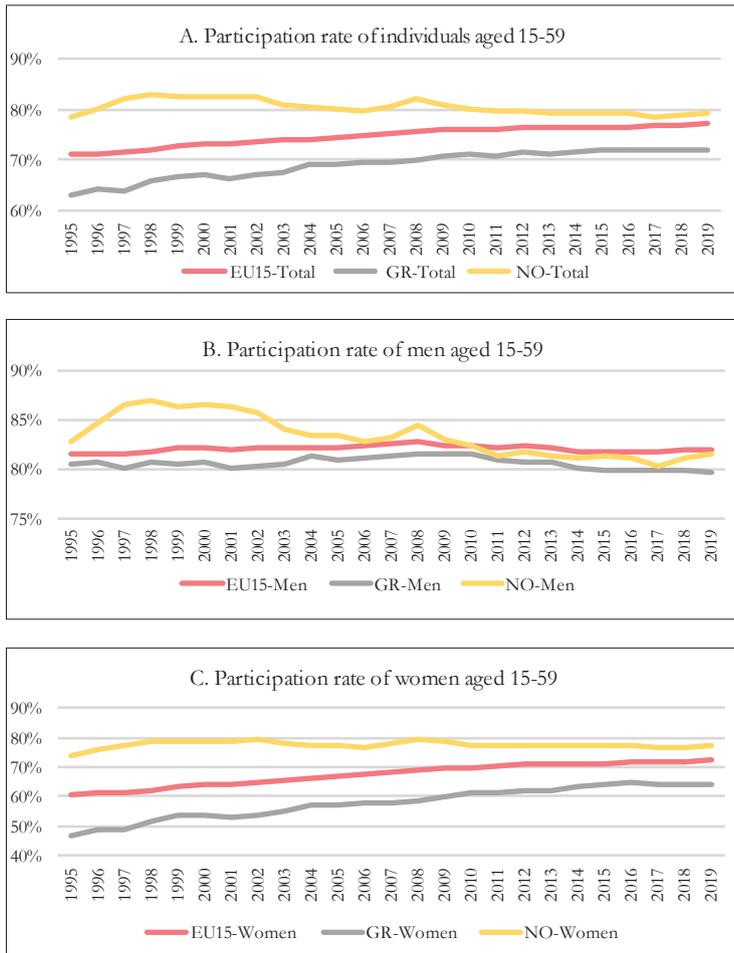
3.1 Introduction

The participation rate in the Greek labour market is low compared to other advanced European economies. Panel A of Figure 3.1 below illustrates the gap, between Greece, the EU-15 and Norway. In 2019, 77.1 per cent of individuals aged 15-59 in the EU-15 countries participated in the labour market. The corresponding figures for Greece and Norway were 72 per cent and 79.4 per cent respectively.

The higher participation rate in Norway, compared both to the EU-15 and Greece, is primarily due to the more extensive participation of women in the labour market; panels B and C of Figure 3.1 below demonstrate this. A plausible question to ask is whether the cross-country gaps in female participation rates are concentrated among specific age groups. Figure 3.2 attests to this. The overall gap in the participation rates between Greece and the EU-15 and Norway is concentrated in the younger (15-19 years old, 20-24 years old) and in the older age groups (55-59 years old). The participation rate of females in Greece aged 15 to 34, which is the focus of this report, stood at 52.7 per cent in the second quarter of 2019 compared to 70.6 per cent in Norway and 61.8 per cent in the EU-15.

Figure 3.1

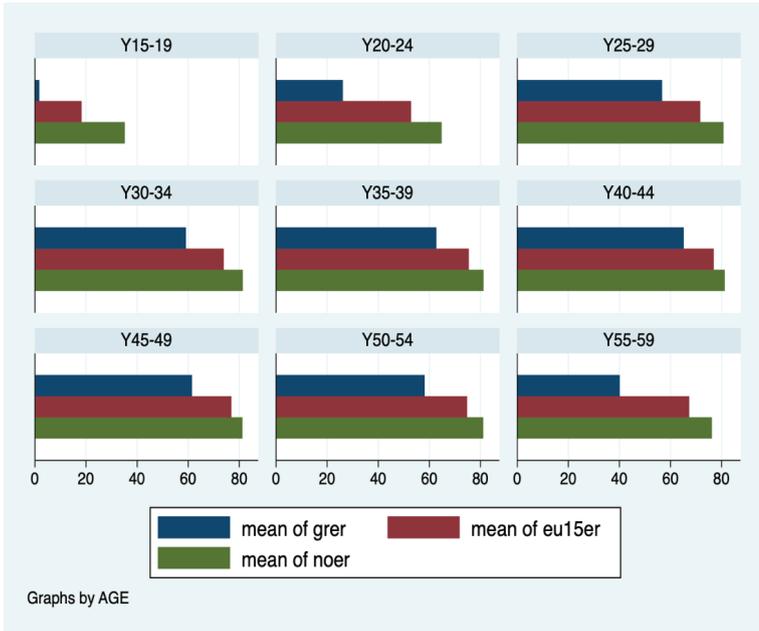
Participation rates in Greece, the EU-15 and Norway, 1995-2019



Source: Eurostat, Labour Force Survey

Figure 3.2

Female participation rate in 2019 in different age groups, Greece, Norway and the EU-15



Source: Eurostat, Labour Force Survey (gr=Employment rate in Greece, noer=Employment rate in Norway, eu15er=Employment rate in the EU-15)

The limited presence of young women in the labour market is not heavily stigmatised in Greece, as a high percentage of individuals believe that women should not necessarily participate in the labour market. Information from Round 4 of the European Social Survey (ESS), for example, shows that, in 2008, 49 per cent of individuals in Greece agreed (strongly or otherwise) that women should be prepared to leave paid work in favour of raising their family. The respective share in the EU-15 is 37 per cent. Recent research by the European Foundation for the Improvement of Living and Working Conditions (Eurofound), part of which concerns

work experiences during the Covid-19 pandemic, reveals, among other things, a big difference (14 hours) in the hours devoted by men and women in Greece to domestic work per week. Greece is at the very opposite end of the spectrum in relation to Scandinavian countries but also France (Eurofound 2020). The pandemic in fact exposed the increased pressure faced by women, compared to men, in their effort to cope with the demands of both their professional and family life (Symeonaki *et al.* 2020). The above suggest that if we consider the women who do not participate in the labour market or who participate in the labour market on a part-time basis, the returns to education for women are negatively affected as potential earnings do not materialize.

Turning to the demand side of the labour market, it looks as if hiring criteria vary by gender more in Greece than in the EU-15 and furthermore, in the case of women, are to a large extent unrelated to their productivity. In the 2013 Eurobarometer survey,⁵ a sample of around 1000 individuals were asked to report the main criteria according to which an employer hired a woman or a man. The replies suggest that individuals believe employers use different criteria when recruiting a man compared to when they are recruiting a woman. More specifically, 47 per cent of survey participants⁶ in Greece answered that, in the case of a woman, the most important criterion was her appearance. This was followed by whether she had children (45 per cent of the survey participants) and whether she could be flexible in terms of working hours (24 per cent of the survey participants). The respective European averages were 33 per cent, 49 per cent and 35 per cent. In contrast,

⁵ This paragraph draws on European Parliament (2013). Moreover, see <https://www.europarl.europa.eu/at-your-service/el/be-heard/eurobarometer/2013-women-and-gender-inequalities-in-the-context-of-the-crisis>.

⁶ The survey participants were offered the opportunity to provide multiple answers.

when it came to hiring a man, the most important criteria were his professional experience (55 per cent of the survey participants), his level of qualifications (38 per cent of the survey participants), his flexibility in terms of working hours (26 per cent of the survey participants) and his ability for ‘professional mobility’ (e.g., travelling abroad) (25 per cent of the survey participants). The respective European averages stood at 40 per cent, 38 per cent, 31 per cent and 31 per cent. The lack of demand for women workers is reflected in the wage gap. In Greece, the unadjusted gender pay gap for all age groups is around 15 per cent, approximately the same as the EU average. In general, the gender pay gap is wider the older the individuals, as illustrated explicitly in section 2 of this chapter.

While the analysis that follows does not touch upon the impact of the recent pandemic on the labour market and the position of women and youth, as these are dealt with in another section of the study, we note here that there is evidence internationally, that the pandemic has aggravated the difficulties faced by women and young individuals in the labour market, alongside those faced by other population groups. The latter include workers in the so-called ‘informal’ economy and people employed in low-paid industries (e.g., education, food services), which are ‘dominated’ by women and young people (see e.g., Lalioti 2020).

The policy measures taken during the crisis triggered by the Covid-19 outbreak, such as school closures, are also expected to contribute, at least in the medium term, to severe losses at the professional level; especially for young women. This expectation is based on the fact that women (and often young women) continue to be responsible for the provision of care towards children and elderly family members (as well as for ‘home’-related issues in general). It is also related, however, to the significant reduction observed in the provision of childcare services by older family members, who often offer this type of assistance to working

mothers (see e.g., Goldin 2020: 2; Zamorro Perez-Arce and Prados 2020). Furthermore, there is evidence suggesting that young women (aged 18-34), along with population groups such as the self-employed, were the ones most likely to lose their jobs during the pandemic (Eurofound 2020).

At the same time, the rather limited, at this stage, research findings, which concern the impact of the current crisis on gender-based discrimination in the labour market, point to the sharp increase in this type of discrimination, and, therefore, in job insecurity for women at the workplace. In Greece and elsewhere, the Covid-19 pandemic appears to be used as an excuse for further undermining women's rights in the labour market.⁷ The discriminatory treatment of women can take many forms: from not hiring a woman for a job (although she actually has qualifications and experience higher than or equal to the male employee who is eventually hired), to unequal access to job-related benefits.⁸

The rest of this chapter is structured as follows. We first (section 2) present the facts relating to the activities of women aged 15- 34 in Greece in the second quarter of 2019 together with estimates on the wage gap. The main reason for the selection of this age group, and not a narrower group between 15 and 24 which exhibits more pronounced differences in terms of activity behaviour compared to other developed countries, is that, as already mentioned at the beginning of the study, we are also interested in documenting the obstacles faced by women in the initial stages of their labour market presence. We turn next (section 3) to a discussion of the theoretical framework used in the literature on female participation. The next section includes a comprehensive documentation of

⁷ See e.g., <https://www.amnesty.gr/news/articles/article/23433/oyggaria-oi-gynaikes-antimetopizoyn-entoni-ayxisi-ton-diakriseon-kai-tis>

⁸ See e.g., <https://www.synigoros.gr/?i=equality.el.imfyloworkpublic&page=1>.

the gender anti-discrimination institutional framework in Greece. Then, we outline policies that decrease the discriminatory treatment of women in the labour market and strengthen female employment (e.g., policies for the reconciliation of professional and family life). Finally, we summarise and discuss possible implications for future research and policy design.

3.2 What do young women in Greece do?

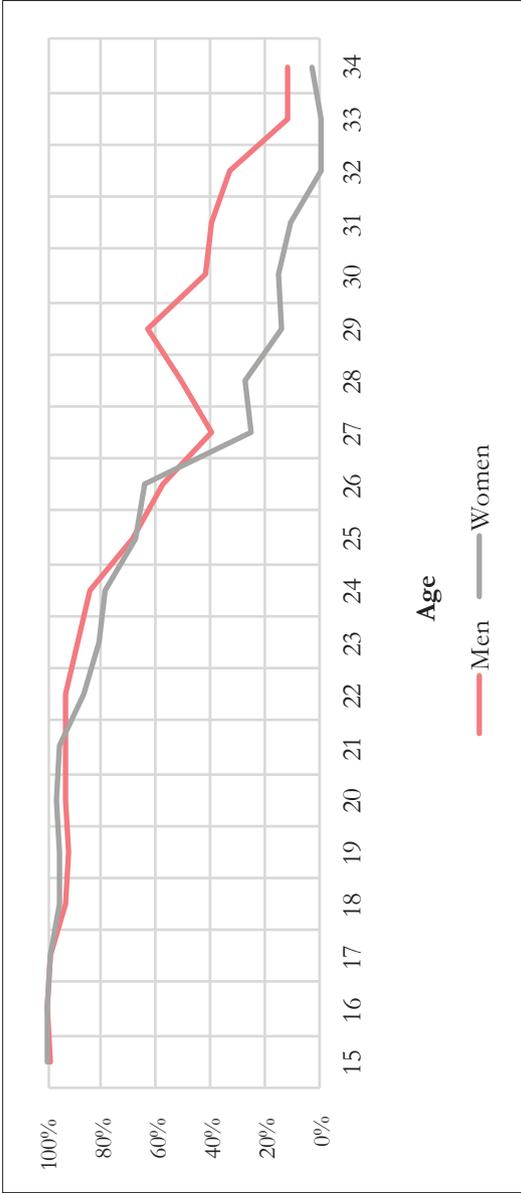
We turn first to documenting the activities of young women in Greece. The documentation is based on ELSTAT's Labour Force Survey (LFS) for the second quarter of 2019.

3.2.1 Activities of young women in Greece not participating in the labour market

As 47.3 per cent of women aged 15-34 appear not to participate in the labour market, the obvious question to ask is what these individuals are doing. For the youngest among the young, the most popular choice, if not participating in the labour market (i.e., if they are inactive), is *education*. Figure 3.3 shows the percentage of inactive women and men who are in education, for every age between 15 and 34 in 2019.

Until the age of around 22, a very high share of both men and women are in education (formal or informal). Thereafter, however, and until the age of 29 inclusive, around half of the women who are inactive are in education. The percentage for men is higher, at 65 per cent. Finally, between 30 and 34 years of age, the percentage of inactive women who are in education is very low (around 6 per cent); although it is considerably higher for men (around 30 per cent). As expected, the share of inactive individuals, who are in education, is higher in urban areas and lower in semi-rural and rural areas for youths of all ages.

Figure 3.3
Percentage of economically inactive individuals in Greece who are in education (formal or informal), by age, Q2 2019



Source: ELSTAT, Labour Force Survey Q2 2019

Turning to the reasons for which individuals are not looking for a job despite not being in education, the picture that emerges is that family responsibilities are the reasons for which most inactive women aged 25 to 34, who are not in education, are not looking for a job (Figure 3.4).

This observation fits with the fact that amongst women in that age group, the majority are married, and is also corroborated by time use survey data for 2013-14, which suggests that women who do not participate in the labour market and are not in education spend a significant amount of their time on household activities.

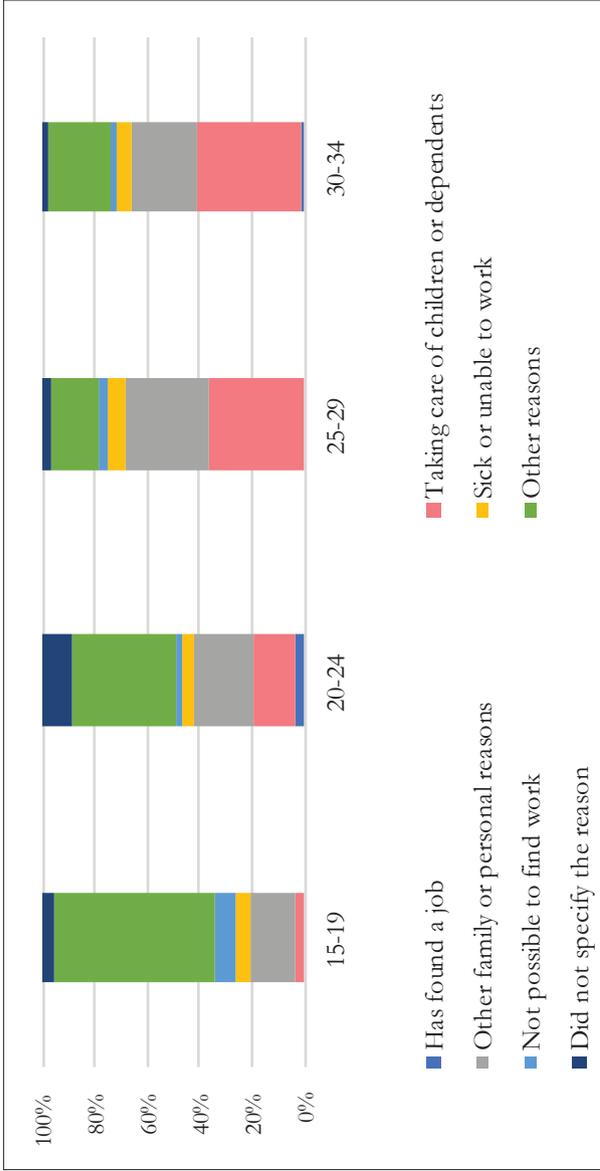
The education level of women who have completed their studies and are not participating in the labour market is relatively high. More specifically, 40 per cent have an upper secondary education certificate compared to 25 per cent of the women who participate in the labour market as a whole. A further 22.5 per cent are university graduates compared to 43 per cent of labour market participants. For those inactive women, who are not in education and do not participate in the labour market, the main source of income support comes from other family members.

3.2 Activities of young women in Greece who participate in the labour market

While the percentage of young women in Greece participating in the labour market stands at 52.7 per cent in the second quarter of 2019, the percentage of women of this age group who are *employed*, is much lower at 37.6 per cent. This reflects the large share of individuals participating in the labour market who are unemployed. In the second quarter of 2019, the unemployment rate for this age group stood at 28.7 per cent.

Figure 3.5 presents the employment rate (employed in a specific age group over the population of the same age group) for men and women at each age. For both genders the employment rate is on

Figure 3.4
Reasons for not working despite not being in education, % of women in each age group reporting each cause



Source: ELSTAT, Labour Force Survey Q2 2019

an upward trend until the age of 25. Thereafter, however, the employment rate of women remains flat, while that of men continues increasing. By the age of 34, the employment rate of women is just 60 per cent, while the corresponding figure for men is 80 per cent.

Figure 3.5
Employment rate by age,
Q2 2019

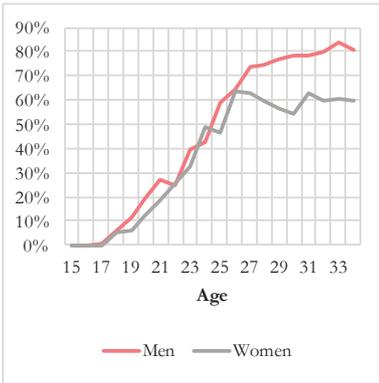
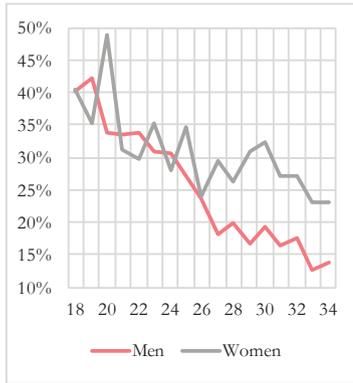


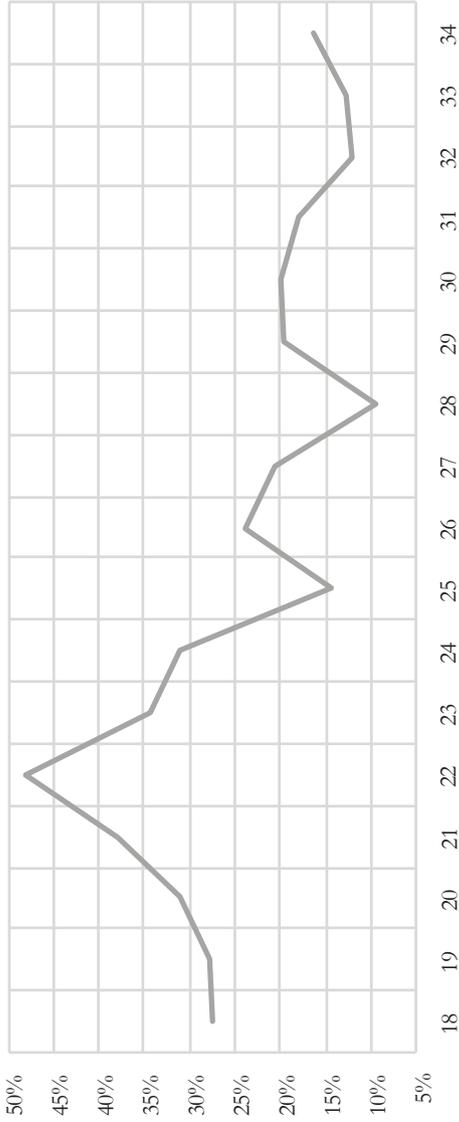
Figure 3.6
Unemployment rate by age,
Q2 2019



Source: ELSTAT, Labour Force Survey Q2 2019

Figure 3.6 shows the unemployment rate (unemployed in a specific age group over the labour force in the same age group) for men and women for each age. This is a mirror image of the employment rate; the unemployment rate is on a downward trend for both genders, until around the age of 25. Thereafter, the unemployment rate for women remains at a high level of around 28 per cent.

Figure 3.7
Percentage of young, employed women working part-time, LFS Q2 2019



Source: ELSTAT, Labour Force Survey Q2 2019

Young, employed women work to a large extent (86 per cent) in the private sector. This percentage is lower for women over 34 (74 per cent for women aged 35 to 50 and 67 per cent for women aged 51 to 64). One in five young, employed women work part-time, with the share being higher for the youngest amongst the young (Figure 3.7). The share of part-time employment for women aged 35 to 50 is 12.3 per cent, while for those aged between 51 and 64 stands at 9.1 per cent. For the youngest cohorts, the main reason for part-time employment is that these individuals are studying at the same time. For the eldest amongst the young, the main reason for working part-time is that they could not find a full-time job.

Table 3.1 shows, in columns 2 and 3, the distribution of young, employed individuals (men and women) across sectors of economic activity. Sectors of economic activity have been ranked in decreasing order of the percentage of young women in each sector. The table illustrates the concentration of youth (both women and men) in low-skilled sectors, such as wholesale and retail trade and accommodation and food service activities. We also note that a higher percentage of women than men are employed in some sectors (e.g., human health and social work activities and education).

Table 3.1

Percentage of individuals in each sector of economic activity by broad age group and gender

	15-34 years old		35-59 years old	
	Men	Women	Men	Women
Wholesale and retail trade; repair of motor vehicles and motorcycles	20.45	20.75	16.59	16.94
Accommodation and food service activities	18.45	17.63	6.36	9.58
Human health and social work activities	2.30	10.53	3.77	10.21
Education	2.52	10.31	5.92	14.44
Professional, scientific and technical activities	4.82	8.53	4.97	5.53

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	15-34 years old		35-59 years old	
	Men	Women	Men	Women
Manufacturing	12.89	6.10	12.07	6.75
Other service activities	1.15	4.26	1.61	2.46
Information and communication	3.27	3.73	2.66	2.56
Agriculture, forestry and fishing	8.82	3.49	11.26	10.14
Public administration and defense; compulsory social security	6.66	3.26	11.21	8.97
Transportation and storage	5.81	2.86	7.83	2.45
Administrative and support service activities	2.78	2.27	2.23	2.43
Financial and insurance activities	0.93	2.16	2.35	2.64
Arts, entertainment and recreation	1.77	1.97	1.27	1.33
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	0.00	0.66	0.06	1.59
Construction	5.60	0.66	6.57	0.46
Electricity, gas, steam and air conditioning supply	0.47	0.31	1.15	0.62
Water supply; sewerage, waste management and remediation activities	0.59	0.20	1.38	0.53
Real estate activities	0.09	0.20	0.11	0.19
Activities of extraterritorial organisations and bodies	0.15	0.13	0.06	0.14
Mining and quarrying	0.48	0.00	0.58	0.05
Total	100.00	100.00	100.00	100.00

Source: ELSTAT, Labour Force Survey Q2 2019.

This is to some extent expected, as young individuals have, by definition, less experience and skills than older individuals. Note, however, that despite having less experience, around 40 per cent of youth (38 per cent for men, 42 per cent for women) have qualifications higher than mandatory education. Amongst older individuals (35-59 years old), the share of men and women working in these two sectors, especially accommodation and food service activities, is much lower. Trying to assess whether the difference between the two age groups is due to a cohort effect

or whether as individuals grow, they move into other sectors of economic activity, we look at the same distribution of individuals across sectors of economic activity in 1999. We find that in 1999 the share of young individuals employed in wholesale and retail trade is similar to that in 2019, suggesting thus that the high share of young individuals in this economic activity sector is not a cohort effect. The share of youth employed in accommodation and food service activities in 1999 is much smaller, however, than that in 2019, suggesting that a cohort effect is partly behind the change in the difference in the concentration in accommodation and food service activities between the two age groups.

Finally, raw data on wages suggest a gap of around 11 per cent between young men and women in full-time jobs, which translates into a gap of around 84 EUR. For part-time jobs, the gap is 21 EUR or 6 per cent. Once, however, we consider differences in level of education, specific age and sector of economic activity, this gap falls from 11 per cent to 9.6 per cent or 81 EUR. This finding shows that the gap in the wages of young men and women reflects more than just differences in productive features. A detailed analysis of the wage gap is presented in Appendix 1 of this chapter.

3.4 The framework used for the analysis of gender differences in labour market performance

The literature that discusses female employment covers a wide range of issues. These include, for example, factors behind the professional choices of women, their participation in the labour market, the duration of their professional life, the level of their hourly net salary and the possibility of being (or not) insured at a social security fund.⁹ The nature of these factors differs significantly

⁹ This and the next two paragraphs largely draw on Jensen, 2017 and Nicolitsas, 2006.

(e.g., they are often socio-economic, cultural or institutional). The literature has paid more attention to the side of labour supply than to that of labour demand, although certain factors (e.g., anti-discrimination legislation) appear to have an impact on both supply and demand.

Factors deemed to impact on female participation include individual characteristics of women, such as their age, health status and educational level; the household composition and characteristics; labour market characteristics, such as the wage level, including the minimum wage, and the wage gap between men and women; characteristics of the tax system, such as the adoption of progressive taxation; spatial characteristics, such as the level of 'urbanization' of a geographical unit and the characteristics of the local economy/society; and cultural characteristics, such as the adoption of specific values and principles with regard to labour market participation.

Policies deemed to enhance women's employability also have an impact on female employment. These include, for example, policies targeted at the harmonization of professional and family life, social care policies, but also 'alternative' forms of employment (e.g., tele-working). Among other things, the relevant bibliography highlights the significant effects of maternity leave and maternity-related provisions on women's integration in the labour market. More importantly, however, it is broadly acknowledged that the outcomes emanating from such policies are due to the combined influence of different parameters: the cost and availability of childcare, tax and occupational incentives, etc. Furthermore, the institutional framework against gender-based discrimination in the labour market is widely perceived as playing a key role in various aspects of female employment (see e.g., Hegewisch and Gornick, 2011).

The literature discussing these policies should therefore be viewed in conjunction with the literature on gender-based discrimination in the labour market, since the latter offers, inter alia,

explanations concerning labour market rigidities and phenomena, such as the inadequate utilization of human resources (see e.g., Anker, 1997). Moreover, based on theoretical approaches such as the ‘preference discrimination theory’ (Becker, 1957) and the ‘statistical theory of discrimination’ (Phelps, 1972, Arrow, 1973), gender characteristics are broadly acknowledged to be linked to the experience of discrimination in the labour market. At the centre of the first approach, lies the concept of the ‘discrimination index’. The higher this index, the greater is, for example, the wage gap between those who are subject to discrimination and those who are not. The second approach is related to the broader theoretical discussion concerning labour market fragmentation and to the hypothesis that there are differences in the productivity, skills, experience and other characteristics of different groups of employees.

Additional approaches, such as the ‘human capital theory’ (Becker, 1964) or feminist theories, likewise offer theoretical frameworks for examining the phenomenon of gender-based discrimination in the labour market (see Anker 1997 for an overview of theories of occupational segregation by sex). Broadly speaking, the literature examining this type of discrimination often focuses on how gender, combined with a variety of variables (e.g., age, behavioural characteristics, etc.), affects employment. Furthermore, it covers a wide range of topics. One of the most ‘classic’ is the gender pay gap. That being said, in contrast to subjects related to female employment in the Greek labour market (especially wage differences between men and women, see e.g., Kanellopoulos and Mavromaras 2002, Agiomirgianakis, Bersatos and Tsounis 2018; Porfyri 2018), and despite the fact that the discriminatory behaviour against women in the foregoing market is anything but unusual, gender-based discrimination is a relatively under-researched subject (see e.g., Balourdos *et al.* 2012).

Based on the review of the relevant literature, the parameters affecting women’s participation in the Greek labour market over

time include, *inter alia*, the marital status of these women, their husband's income, their children's age, whether they are household heads or not, their educational level, their place of residence and their age. Furthermore, gender-based discrimination is a crucial factor, when it comes to understanding the difficulties faced by women in the domestic labour market (see e.g., Livanos, Yalkin and Nuñez 2009, Fasianos and Karakitsios 2020).

One of the key factors regarded as hindering female employment in Greece is the overlap between work and family relationships. This overlap is largely linked to the high number of family enterprises in the country, as well as to the direct dependence of women on the economic activity of their husbands (Stratigaki 2006). Similarly, a series of variables is acknowledged to affect, in a positive way, the profile and characteristics of female employment in Greece. These include the removal of the administrative barriers that pose obstacles to the entry of more women into business, and the extension of childcare and improvements in the policies aiming at reconciling the personal and professional lives of employees (see e.g., Nicolitsas, 2006).

3.5 The anti-discrimination institutional framework in Greece

The importance of the anti-discrimination framework, as a means of combating discrimination against women in the labour market, cannot be overstated. Yet, we should also keep in mind that the adoption of such a framework is not a panacea and does not lead to the eradication of discrimination. An example may be found in the case of the United States of America, a country regarded as having a long and strong commitment to anti-discrimination legislation (see e.g., Blau and Kahn 2001).

This is because, in line with the relevant literature, coping with discrimination is a multidimensional issue. Hence, the institutional

framework against gender-based discrimination in the labour market should be viewed in conjunction with the policies targeted at enhancing women's employability, such as the ones discussed in section 3.5 below.

While the institutional framework concerning age-based discrimination partly overlaps with the one concerning gender-based discrimination (discussed below), the foregoing policies targeted at young people aged 15-34 (women included) in Greece include, *inter alia*, active labour market policies (henceforth ALMPs) promoted by OAED, i.e., the Manpower Employment Organization. Examples of these policies are the so-called programmes of 'guaranteed employment' in the private sector, whose main objectives are job creation and providing incentives to enterprises for new hires (through the subsidization of wage and non-wage costs).

Given, however, the focus of the present chapter on women in the Greek labour market, this and the next section prioritize the discussion on gender-based discrimination (and the relevant policies) over the discussion on age-based discrimination (and the relevant policies). Furthermore, we should keep in mind that the ALMPs adopted by the Greek national authorities and agencies quite often consider both gender and age characteristics.¹⁰ Otherwise, as already mentioned, young women are amongst the key target groups of ALMPs targeting young people or the unemployed in general. Moreover, as will be discussed below, given the high incidence of violations of the anti-discrimination legislation in Greece, for reasons related to pregnancy/maternity, young women are obviously amongst the main victims of discrimination in the domestic labour market.

¹⁰ A recent example is a pilot youth entrepreneurship project launched by OAED at the beginning of 2020, with an emphasis on unemployed women, aged 18-29.

Overall, the broader institutional framework against discrimination in the Greek labour market, part of which concerns the equal treatment of both male and female employees, conforms with the fundamental principles of international conventions targeted at combating discrimination. An example is the ‘Convention for the Elimination of All Forms of Discrimination Against Women’, which was adopted by the General Assembly of the United Nations on December 18, 1979 and signed by Greece on March 2, 1982 (and, next, ratified via Law 1342/1983).

Similarly, this framework is in line with the basic principles of the EU legislation regarding the equal labour market access of people with different characteristics, as well as the promotion of gender equality. From the 1970s onwards, the European institutions undertook legislative initiatives, which aimed, inter alia, at ensuring the equal treatment of men and women in the field of employment (e.g., by determining minimum levels of protection for all employees in the EU, in terms of recruitment, working conditions, promotion, pay, access to vocational training, layoffs, occupational pensions, etc).

Gender discrimination lies at the heart of both primary and secondary law, while many EU Directives likewise address issues of gender equality and non-discrimination. Milestones include, inter alia, the following Directives: Directive 2000/78/EC of 27 November 2000, which focuses on equal treatment in employment; Directive 2006/54/EC of 5 July 2006, which concerns equal opportunities and the equal treatment of men and women in matters of work and employment; and Directive 2010/41/EC of 3 December 2012, on the equal treatment of men and women engaged in, or contributing to, self-employment activities.

Although the effects associated with the anti-discrimination institutional framework cannot be easily attributed to specific clauses (see e.g., Livanos, Yalkin and Nuñez 2009), the important developments that took place in the framework outlined above

are widely acknowledged to have contributed to the increasing mass participation of women in the domestic labour market. The starting point for these developments is the explicit reference made in the 1975 Greek Constitution to the right of all workers, irrespective of gender (or other distinction), to equal pay, for work of equal value. This resulted, between 1975 and 1978, in the gradual convergence of the lower wages of women with those of men (Nicolitsas 2006).¹¹

During these first steps taken against gender-based discrimination, Law 1414/1984, which concerns the application of the principle of gender equality in employment relations (Davaki 2013), is a milestone. The law referred to the right of access to all sectors and levels of employment, regardless of gender characteristics, and declared illegal an employer's refusal to hire a woman for pregnancy-related reasons. More recently, the introduction of Laws 3304/2005, 3488/2006, 3769/2009, 3896/2010 and 4097/2012 was crucial to the fight against discrimination and the promotion of equality in Greece. Alongside constitutional provisions (in particular Articles 4, 22 and 116 of the Greek Constitution), they focus on the protection of the equal and non-discriminatory treatment of men and women in the labour market (e.g., in the cases of recruitment, independent professional activity or even participation in vocational education and training programmes).¹² Part of these provisions address some of the most 'popular' sub-themes of gender-based discrimination in the labour market, such as the equal pay of male and female employees for work of equal value and their equal access to social security schemes.

Law 3896/2010 introduced a novel (and more complete) framework for the more effective application of the principle of equal

¹¹ The full convergence of the lower wages of women and men employees was adopted on March 1, 1978.

¹² See also <https://www.synigoros.gr/?i=equality.el.ifhomos>.

treatment in the field of employment, through a system of extended legal protection and innovative legal tools (in accordance with the requirements of the Directive 2006/54/EC). Among other things, Law 3896/2010, which replaced Law 3488/2006, extended the Greek Ombudsman's responsibilities relating to gender-based discrimination in terms of employment, to both the public and private sectors of the economy.

The Ombudsman, initially responsible solely for violations of the anti-discrimination legislation by the public services, plays, alongside the Labour Inspectorate (hereafter SEPE), which is responsible for checking for violations in the field of employment and work by natural or legal persons in the private sector, and the Equal Treatment Committee, which is responsible for violations for all fields except employment and labour, a strategic role in promoting the principle of equal treatment and thus in combating gender discrimination in the domestic labour market. The Ombudsman's interventions to restore legitimacy are numerous; often in collaboration with SEPE, whose Labour Inspectors inform the Ombudsman about the complaints they receive concerning issues of gender-based discrimination in the labour market and submit to the Ombudsman the results of their investigation. The Ombudsman has, however, the authority to conduct his own investigation and formulate the final decision on the complaints submitted by employees (Ministry of Employment, Social Insurance and Social Solidarity 2017). The frequent violations of the rights of pregnant employees or those of working mothers, which will be discussed later in this chapter, is a field where the Ombudsman has assumed an active role.

The existing anti-discrimination framework in Greece covers various forms of employment (including employment without a currently valid contract) with a particular employer/company, or for a definite or indefinite period. Among other things, the framework covers the services provided by the self-employed, while

also addressing different types of issues that may affect the access of citizens to professional life (e.g., job ads or calls for work positions).

The framework described above relates to both direct and indirect gender-based discrimination in the labour market. It does so more effectively for the former than for the latter, due to the relatively vague definition of the concept of ‘indirect discrimination’.¹³ Broadly speaking, direct discrimination arises when the employer treats a person worse than another in a comparable situation, because of her/his gender characteristics (e.g., when an employer refuses to hire an employee, just because she is a woman).¹⁴ By contrast, indirect discrimination relates to a practice (or policy or rule) that applies to all, and although it seems, at first sight, to be neutral, ends up having negative consequences for specific individuals. Unfavourable provisions governing part-time employment that increase the cost of part-time employment disproportionately, for instance, introduce indirect discrimination against women, since most part-time employees are female.

The existing anti-discrimination framework also addresses ‘multiple discrimination’: when, for example, gender-based discrimination in the labour market is combined with discriminatory behaviour due to other characteristics of the employee (e.g., age or nationality). Multiple discrimination is protected by provisions, such as those included in Law 4443/2016, which promotes the principle of equal treatment and combats discrimination based on gender, but also other characteristics, such as race, colour, ethnicity, religion, disability or chronic illness, age, marital or social status, sexual orientation and gender identity; and which, once again, was established in agreement with EU-driven principles, such as those governing Directives 2000/43/EC and 2000/78/EC.

¹³ This and the next paragraph draw on Petroglou 2020: 19-20.

¹⁴ See <https://ec.europa.eu/social/main.jsp?catId=1437&langId=en>.

Unfortunately, as already mentioned above, the establishment of a framework prohibiting gender-based discrimination in the labour market does not automatically lead to the eradication of this type of discrimination.¹⁵ In practice, the information on the violations of the legislation against gender-based discrimination in the Greek labour market indicates that most complaints come from women. Furthermore, during the years of the recent financial crisis (from 2008 and onwards), there was a significant increase in the number of the complaints from women working in the private sector. The main causes of discrimination against women in the domestic labour market included their ill-treatment, due to pregnancy and maternity leave, and/or in the case of maternity-related benefits.

Additionally, there is anecdotal evidence that it became quite common for young women to be asked not to start a family, if they were to get a job in the private sector. In a similar vein, maternity leave intervals were not to be taken into consideration as periods of service in cases of promotion; or pregnant employees were more at risk of unemployment or conversion of their employment into part-time status. On the contrary, complaints regarding the ‘unequal’ pay of women, compared to that of their male colleagues, were not reported to be that frequent.

In a similar vein, according to the annual report of the Greek Ombudsman for the year 2019: 44 per cent of the complaints submitted to the Ombudsman for issues of discrimination concerned this exact type of discrimination, largely revealing the limited protection of pregnant employees towards the discriminatory behaviour of employers.¹⁶ For the same year, 73 per cent of all the

¹⁵ This and the next paragraph draw on Balourdos et al. 2012; Davaki 2013: 13; Petroglou 2020: 37-38, 49.

¹⁶ This and the next two paragraphs largely draw upon The Greek Ombudsman 2020.

reports concerning discrimination in the private sector concerned gender-based discrimination. In a systematic way, many employers attempt, as soon as possible, to get rid of the 'burden' of a pregnant employee, often resorting to seemingly lawful ways of terminating the contract of this employee.

Moreover, employers often seem to adopt a behaviour (including making decisions that will lead to the deterioration of the pregnant employee's working conditions (e.g., an adverse change of workplace), which will ultimately force this employee to resign (and the resignation will be presented as voluntary, when in reality it's not). This phenomenon appears to occur with greater intensity in small and medium-sized enterprises, which, however, constitute most enterprises in the country. Gender-based discrimination is not uncommon in the public sector either. Moreover, female employees who are victims of discrimination often avoid submitting a complaint: they fear that they may have to cope with additional consequences. We should also keep in mind that it is quite difficult for an employee to prove that she/he has faced discrimination.

Furthermore, the anti-discrimination framework is not always implemented in an adequate and effective way. According to the Ombudsman, one of the key reasons behind this is the inconsistency between design/content and implementation, the latter exhibiting slower progress than what was originally anticipated (since the adoption of the relevant legislation). Despite the successful collaboration between the Ombudsman and SEPE, the former claims that the lack of satisfactory progress should be attributed to the multi-year economic crisis in Greece and the strict fiscal adjustment, but also to deep-rooted prejudices and well-established stereotypes regarding women in the Greek society.

The current anti-discrimination framework is also regarded as being relatively inadequate in terms of issues such as the protection of pregnant employees and/or women on maternity leave (e.g., in the case of renewing the fixed-term contract of such an employee),

a criticism that seems to be verified by the review of complaints submitted to the Ombudsman. The critique is largely related to the view that the aforementioned framework leaves significant room to the employer, in order to terminate the employment relationship with a pregnant employee and/or a woman on maternity leave (e.g., in the cases of the relative low performance of the employee or the non-compliance with the instructions of the employer; under the condition that these are in no way associated with the employee's pregnancy or maternity leave).

The criticism towards the institutional framework against discrimination is also linked to the idea that, similarly to the institutional framework on gender equality, this framework is governed by legal formalism. This is a view that builds upon the assumption that those who introduced this framework copied, almost entirely, supranational rules based on other countries' practices, while ignoring the resistance against the eradication of discrimination that is inherent in the Greek society (Lyberaki 2010, Lyberaki and Tinios 2017).

The above should be viewed, however, in conjunction with the broader criticism expressed regarding theoretical concepts which lie at the heart of the anti-discrimination framework, such as the concept of 'positive action' (an explicit reference to which was adopted in the 2001 Greek Constitution). The concept of positive action *per se* was perceived as running counter to the very essence of the framework described above. More specifically, it was accused of ending up encouraging discrimination (see e.g., Hodges Aeberhard 2001).

Overall, the implementation of the framework against discrimination in the labour market appears to be more difficult in the private sector than in the public sector, as well as in small and medium-sized enterprises, compared to large enterprises (Lyberaki and Tinios 2017). Finally, we should keep in mind a series of issues that undermine the effective use of the existing framework:

first, there is often limited access to the information regarding the content of discrimination and the rights of employees who faced discrimination (Porphyri 2018: 13); second, the official procedures following the submission of a complaint for gender-based discrimination in the labour market are often very time-consuming; and, third, the results achieved are not always the desired ones (e.g., the monetary compensation for the time the employee was left out of the labour market may be minimal or even zero) (Petroglou 2020: 95-96).

3.6 Policies

Strengthening female employment and removing the barriers (the discriminatory treatment of women by employers included) regarded as undermining the integration/reintegration of women into the labour market, are at the centre of European employment strategies and policies. More specifically, the interest of EU authorities in the employment situation of young women is evident in initiatives such as the Youth Guarantee.

As already mentioned, the institutional framework targeted at combating gender-based discrimination in the labour market should be viewed, alongside the policies (and, generally speaking, the parameters), which are regarded as playing a crucial role towards strengthening women's employability. Although discussing the relevant literature goes beyond the scope of this chapter, it should be noted that substantiating the direct relationship between these policies and female employment is often a difficult task. Moreover, there is a quite controversial and rather limited literature strand, which focuses on the possible negative consequences of these policies for different aspects of female employment (see e.g., Hegewisch and Gornick 2011).

The list of the foregoing policies is quite long and covers a wide range of different, but interrelated fields/areas: from the

harmonization of the family and professional life of employees to social care and taxation. Over the last two decades in particular, a period which for most of the OECD member-states coincides with the beginning of an effort to redefine their institutional framework against gender-based discrimination in the labour market, there has been significant progress (see e.g., Jaumotte 2003).

Perhaps the most representative category of policies, which are deemed as contributing to removing barriers from women's participation in the labour market and decreasing discrimination against women, are those aimed at the reconciliation of the professional and family life of employees. These include, *inter alia*, types of provisions/benefits related to the period of motherhood, but also working time arrangements, which often offer relative flexibility to employees.

The 1980s are a milestone in the development of these policies in Greece, once again in accordance with the basic principles of EU legislative initiatives. Viewed in conjunction with the modernization of family law (1983) in the country (at the time, one of the most women-friendly pieces of legislation in the EC), Law 1483/1984, which aimed at the protection of employees with family obligations, was a major step towards the reconciliation of the professional and family lives of employees. In line with the same logic and principles, Greece ratified in 1985 the ILO Treaty 156, which concerned strengthening the aforementioned reconciliation (see e.g., Nicolitsas 2006). Examples of more recent provisions in this field are those included in Law 3528/2007, Law 3655/2008 and Law 3896/2010, on maternity leave, parental leave, special maternity protection and the prohibition of the discriminatory behaviour of employers towards employees, due to the use of benefits, such as maternity leave.

Illustrative of policies targeted at reconciling the family and the professional lives of employees are also the 'highly contested' working time or working type arrangements (teleworking

included), which, during the current Covid-19 pandemic, experienced, in Greece (and elsewhere), a significant increase. In the case of Greece in particular, these policy measures, together with the extensive reform in the field of employment relations during the 2010s economic crisis, drastically changed the landscape in the domestic labour market. Those in favour of such arrangements often argue that they leave less room to employers for discrimination, given that the latter usually use the greater commitment of women to their family, as an excuse for the adoption of discriminatory behaviour towards female employees. On the other hand, the expansion of flexible forms of employment has been criticized for being associated with low-quality work, as well as for paving the road for the further deterioration of the rights of the most vulnerable population groups, including those of women.

Policy initiatives targeted at the harmonization of the professional and family life of employees have also been developed, however, by national authorities and organizations with a strategic role in combating gender-based discrimination in the labour market [e.g., the Ombudsman, who, in a letter addressed to the General Secretary of Family Policy and Gender Equality, suggested, *inter alia*, the introduction of a six-month parental leave for the private sector; or the social partners, who incorporated the European Framework Agreement for an inclusive labour market in the General Collective Bargaining Agreement for year 2016] (The Greek Ombudsman 2020: 93-95; Porfyri 2018: 32).

There are large differences in employees' access to such provisions and to their coverage (e.g., depending on their employment status, including whether they are self-employed or not). For example, employees with permanent employment in the public sector and employees who are likewise employed in the public sector, but under a fixed-term contract, have access to different types of maternity leave (Petroglou 2020: 50, 79).

Additionally, the national data available from SEPE on the policies targeted at the reconciliation of the family and professional lives of employees [e.g., information on the number of male and female employees who requested from their employers and eventually got childcare or parental leave (and other types of leave)], shed light upon the following, among other things: first, the much higher number of women who faced gender-based discrimination in the labour market (due to maternity-related reasons), confirming therefore the data included in the Ombudsman reports; and second, the much higher number of women who benefit/make use of provisions for the reconciliation of the family and professional lives of employees (Ministry of Labour, Social Insurance and Social Solidarity 2017). As discussed, nevertheless, in the relevant literature, without an increase in the number of the men-users of these policy measures (and, apparently, without a change in the division of labour at home), gender-based discrimination in the labour market cannot be discontinued (see e.g., Hegewisch and Gornick 2011).

In recent years, a series of legal provisions covered pre-existing unregulated gaps concerning surrogacy and adoption rights (maternity leaves, maternity benefits and allowances, protection from lay-offs), while also establishing the use of parental leave by both parents alternatively (biological, adopting, foster parents), regardless of their working status (see Article 38 of Law 4342/2015 and Articles 44-46 of Law 4488/2017).¹⁷ Another particularly important legislative initiative, adopted in 2017, was the extension of the protection against dismissal, (which was previously reserved only to natural mothers) to women who were in the process of adopting children; or who were undergoing the procedure of becoming pregnant, or were in fact pregnant, within the context of surrogate motherhood (see Article 48 of Law 4488/2017).

¹⁷ This and the next two paragraphs draw on Ministry of Labour and Social Affairs, 2020: 7, 13, 29-30.

Moreover, under the 2019 Rights, Equality and Citizenship Work Programme, the General Secretariat for Family Policy and Gender Equality, submitted a proposal to the European Commission titled ‘Promoting work-life balance in companies and a better sharing of care between men and women’ (SHARE), which was approved and started being implemented in February 2020. The project aimed at tackling traditional gender family roles and at promoting the reconciliation of work and private life, with an emphasis on companies’ working environments.

Finally, a new law on substantive gender equality (Law 4604/2019) was adopted in March 2019. This was the first attempt in Greece to draft a ‘horizontal’ bill, which aimed at the creation of circumstances that could lead to the achievement of substantive gender equality and the elimination of gender inequalities in all sectors of public, social and economic life. The notions of ‘gender mainstreaming’ and ‘gender budgeting’ were introduced for the first time into a legislative text. Furthermore, a chapter was dedicated to ‘gender mainstreaming in private life and labour’, with articles concerning provisions for substantive gender equality in the field of labour (e.g., the establishment of Equality Signs and Gender Awards for enterprises adopting gender equality corporate policies).

Leaving aside these ‘classic’ examples of policies for the harmonization of the professional and family lives of employees, childcare policies is another category of policies regarded as crucial for enhancing women’s employability and decreasing gender-based discrimination in the labour market. The main reason for this is that women (in Greece and elsewhere, despite differences) continue to be the ones, who are responsible for the provision of childcare (while the existing ‘gaps’ are being filled by elderly family members and immigrants) (see e.g., Lyberaki 2008, Lyberaki and Tinios 2017. Milestones in this policy field in Greece include the establishment (in 1997) of the all-day school, which

was followed, *inter alia*, by the expansion of the network of pre-school and primary education (Nicolitsas 2006: 18).

Overall, the establishment of childcare (alongside that of elderly care) and, broadly speaking, the development of personal social services in Greece has historically been slow and piecemeal. Additionally, the 2008 economic crisis and the austerity-related policy measures resulted, among other things, in extensive cuts in expenditures for these services and into fewer families being able to pay migrant women for the provision of care than in the past; meaning that the burden of domestic child (and elderly) care increasingly fell on the shoulders of female family members (Davaki 2013: 13-14).

Despite the significant progress made during the last decades, largely due to EU funds (see e.g., the work-life balance programmes offering childcare services to unemployed/self-employed/employed in the private sector mothers that fulfil low-income criteria), Greece continues to lag behind other EU countries in a series of indicators regarding the provision of the services discussed here (see e.g., OECD 2017). Parameters such as the mediocre quality of provisions targeted at children up to the age of three (see e.g., Megalonidou 2020) still undermine the equal participation of men and women in the domestic labour market.

The above have been accompanied by the introduction of incentives for employers to hire and keep in their labour force female employees. For instance, employers hiring women, who have at least two children are exempted from paying insurance contributions for these employees (for a period equal to one year per child). Additionally, female farmers are exempted from paying their insurance contributions for one year, following the birth of a child (from the second and onwards) (see the relevant provisions of Law 3227/2004).

In a similar vein, there are ‘quota measures’, according to which a specific percentage of employees or participants in various

organizations/committees should be women. Law 2839/2000 introduced, for the first time in Greece, that 1/3 of all employees in the public sector, local authorities and related institutions and enterprises have to be women (Davaki 2013: 9). Moreover, private companies have, in theory, the obligation to increase the number of their female board members. Still, there is a big distance between theory and practice (Petroglou 2020: 23-30).

Over the last five years, a series of policy interventions have focused on the labour market integration of young women. These include, inter alia, the submission to the General Secretariat for Lifelong Learning and Youth of proposals formulated by the Ministry of Labour and Social Affairs (under the ‘New National Lifelong Learning Programmes’), which aimed at the elimination of digital illiteracy and the integration of vulnerable social groups, especially young women and girls, in the workplace, and employment programmes targeted at unemployed young people aged 18-29, with absolute priority being given to mothers of minors (Ministry of Labour and Social Affairs 2020).

Finally, once again, all the above have been implemented under the aegis of broad-scale projects (which largely benefited from EU funds). Examples include projects whose objective is to strengthen women’s employability and cope with gender-based discrimination such as the ‘Equal’ Initiative, which aimed, inter alia, at offering equal opportunities for labour market access to both male and female employees (e.g., via actions that targeted at the reconciliation of their professional and personal lives) (Balourdos *et al.* 2012: 184); or the ‘National Action Plans for Gender Equality’, which, among other things, supported the employment independence of women (Davaki 2013: 8; Ministry of Labour and Social Affairs 2020: 51). Overall, policy interventions based on the adoption of the concept of ‘positive action’, previously mentioned elsewhere in this report, played a crucial role towards the significant progress made in terms of anti-discrimination in the domestic labour market.

3.7 Concluding Discussion

This part of the study sheds light upon the activities of women aged 15-34 in Greece (both those who participate and those who do not participate in the domestic labour market), while also offering information on the anti-discrimination institutional framework in the country, as well as on the policies deemed to enhance women's employability and decrease discrimination against female employees. The above sections highlight, among other things, first, the high number of young women, and young men for that matter, up to the age of 25 who do not participate in the domestic labour market as they are in education full-time; second, that post the age of 25 women who are no longer in education and are not in the labour market are busy with family responsibilities and third, the high number of young women who work in private sector services that require a relatively low level of skills.

Additionally, this chapter shows the significant progress made in terms of gender-based discrimination legislation in the labour market, as well as in policies, such as those targeted at the reconciliation of the professional and family life of employees and the provision of childcare. Yet, it also includes evidence of the weaknesses, which are clear in both the foregoing framework and policies. Illustrative of these weaknesses are the 'gaps' in the anti-discrimination legislation that leave room to employers for the adoption of discriminatory behaviour against female employees, but also the relative underdevelopment of the aforementioned policies and inadequacies in their implementation. Hence, overall, there is still much to be done to eliminate discrimination against women in the Greek labour market and strengthen their employability (especially for young women).

The increasing concern over the possibility of a further widening of gender inequalities and gender-based discrimination has also spurred a debate about the best ways to deal with this possibility.

This includes adopting policy measures that would help national authorities and the competent bodies to cope with multiple forms of discrimination and to encourage the participation of specific, highly vulnerable, groups of women in the labour market (e.g., women with disabilities or Roma and migrant women). Furthermore, it includes the immediate establishment of policies that would allow dealing with relatively extensive phenomena in both European and domestic labour markets; especially skills mismatch, which is attributed to the influence of various structural factors that are widely related nevertheless to gender.

In response to the foregoing concern, very recently, in Greece, the members of the prominent ‘Pissarides Committee’, named after the head of the Committee, i.e., the Nobel recipient in economics Christopher Pissarides, discussed, *inter alia*, the discriminatory attitude of employers towards female employees, as a problem that is directly connected to the relative low participation of women in the domestic labour market and the lower positions occupied by women in professional hierarchies. They also acknowledged that this behaviour largely emanates from employers’ prejudice towards pregnancy/maternity. For this reason, members of the Committee have suggested, among other things, that the main cost of maternity leave should be funded via general taxation (and not by enterprises), and that male employees should be offered paternity leave, under the same conditions as female employees. Providing women, and especially young women, with equal labour market opportunities to those of men is crucial to strengthening gender equality; but also, to promoting social justice and the development of a more productive economy (Pissarides Committee 2020).

The increasing concern over the possibility of a further widening of gender inequalities and gender-based discrimination could also function, however, as the starting point for pondering a series of issues that may be crucial to increases and improvements in terms of female employment (and the promotion of gender

equality in general). These include issues related, for instance, to welfare state characteristics, which have a large impact on female employment. An example may be found in the emergence of the key role of care services to enhance the opportunity for labour market access; and, consequently, the necessity of increasing the salaries of those employed in the care sector (as well as of all those employed in the, often low-paid, occupations, which are ‘traditionally’ ‘dominated’ by women, like education). Furthermore, combating gender-based discrimination requires well-designed policies; meaning that it presupposes the systematic collection and use of empirical data on the subjects discussed in the present study.

Still, the most important goal should be removing all negative stereotypes for female employees (e.g., their lower commitment to professional life, compared to male employees, due to their increased family responsibilities). These stereotypes are directly linked to significant shortcomings of the Greek welfare state, such as the limited scope and rather mediocre quality of social care services. More importantly, however, they are deeply rooted in patriarchal perceptions and norms, which often appear to be almost unshakable, leading to the perpetuation of discrimination against women in the domestic labour market. Last, we should keep in mind that this remark holds true in terms of both the supply and demand sides of the labour market, if not mainly from the latter.

Appendix. The gender wage gap in the Greek labour market: a concise picture of recent data

Daphne Nicolitsas

Estimation of the gender wage gap and the factors behind it depend on the availability of detailed wage data together with demographic and productive features of employees and the characteristics of the workplaces of these employees. Unfortunately, such a dataset is not readily available in the case of the Greek labour market – a factor which has contributed to the dearth of research on the issue. Two potential sources of *administrative* data: the main social security fund (EFKA) and the Ministry of Labour information system (Ergani) have individual-level wage and earnings information but do not contain substantial information on either the employees or the workplace. Furthermore, the Ergani database is not handed out for research purposes while getting the EFKA database is freight with difficulties. Another potential source is the Hellenic Statistical Authority's (ELSTAT) Labour Force Survey (LFS) with individual-level information on earnings and on a number of individual-level characteristics (e.g., education) but with little information about the workplace. The above three data sources contain information on a continuous basis.

A source which contains information on both employee and employer characteristics is the Structure of Earnings Survey (SES). The SES is a standardized firm-level survey, conducted since 2002 with a 4-year frequency, in many European countries. The last survey was conducted for 2018.

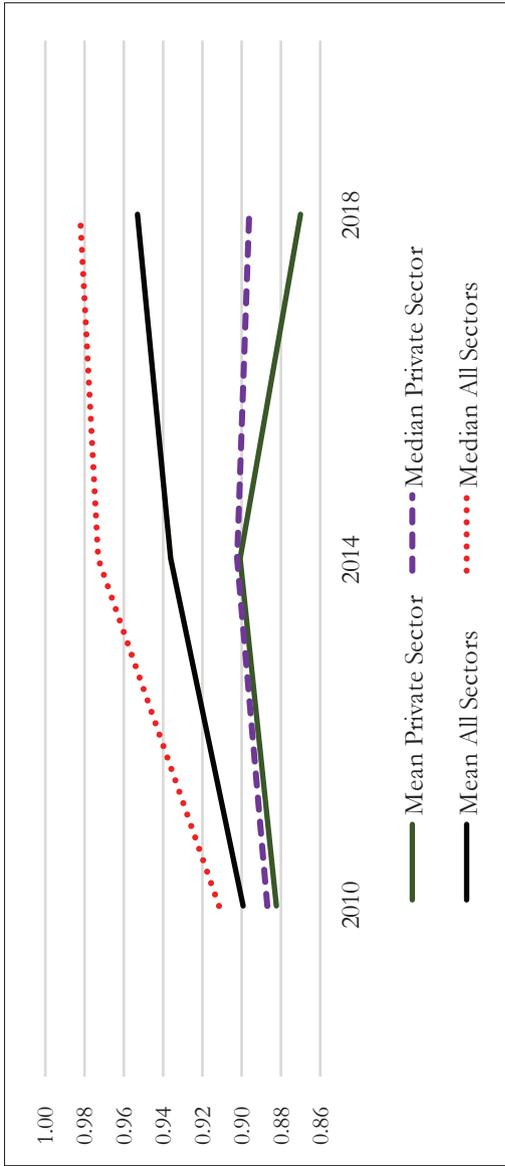
In Greece, the survey is carried out by ELSTAT and covers plants belonging to firms with 10 or more employees. The sampling frame used was the companies' register maintained by ELSTAT stratified by region, sector and firm size. The SES contains individual earnings data for a random sample of employees in

each plant in the survey, together with detailed human capital and demographic information per worker as well as information on employers' features and job attributes. A big advantage of the SES is that it separates information on earnings from normal hours of work from earnings from overtime and it also contains information on both normal and overtime hours. As a result, the SES permits the calculation of a regular hourly pay rate which should be the basis on which comparisons between groups is made. As SES covers only firms with 10 or more employees, however, it is not representative of the overall Greek economy which is dominated by small firms; in most sectors of economic activity over 90 per cent of firms employ up to 9 employees.

The picture in 2018 for the overall economy is significantly improved compared to that in 2010 whereas the picture in the private sector has not changed by much. In 2018, the SES data indicate that the unconditional gender wage gap in firms employing 10 employees or more stood at close to 10 percentage points; the median *hourly wage rate* of women working full-time in the private sector was at around 90 per cent of the median hourly wage rate of men working full-time in the private sector (Figure 3.8). If we look at the economy as whole, that is, if we also consider the public sector, the gap in 2018 stood at around 2 percentage points (Figure 3.8). Calculating the gap based on the median rather than the mean leads to a lower gap as the mean is influenced by extreme values which are more likely to be earnings for men rather than women.

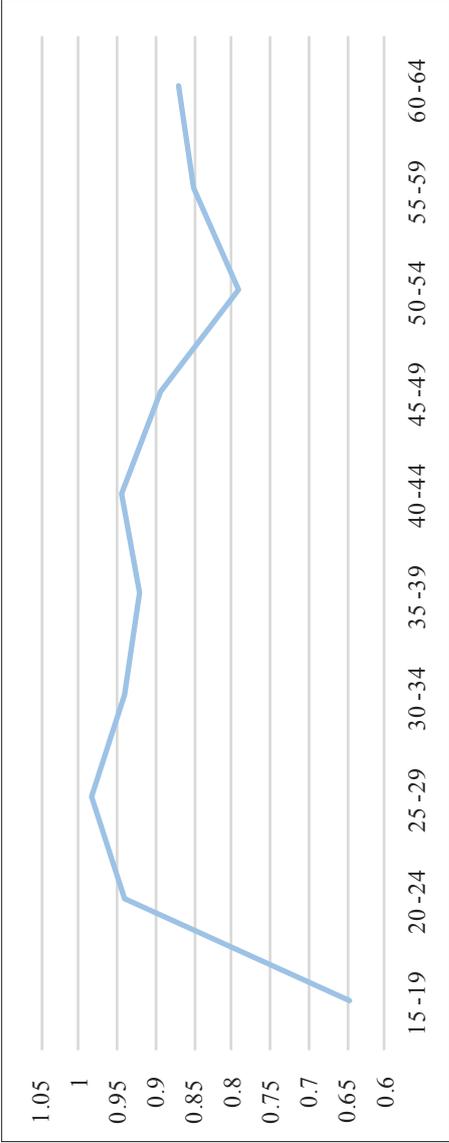
If we look at the wage gap conditioning only on age, we find that the gap is higher the older the individuals (Figure 3.9). This could be a *cohort effect* – women who are older in 2018 had also been paid with a lower wage than men when they were young – or it could be the case that older, but not younger, women are over time always being paid lower wages.

Figure 3A.1
 Ratio of the hourly wages of women over the hourly wages of men, 2010-2018



Source: ELSTAT, Structure of Earnings Survey data 2010, 2014 and 2018 and own calculations

Figure 3A.2
Ratio of the median hourly wages of women over the median hourly wages of men by 5-year age group, 2018



Source: ELSTAT, Structure of Earnings Survey data 2018 and own calculations

The information in Figure 3.9 can be summarized as in Table 3.1 which shows coefficient estimates of OLS regressions of the individual-level data of the log of the hourly wage rate on just a gender dummy (column 1), or gender and time dummies (column 2), or gender and time dummies and interactions of the gender and time dummies (column 3).

The first column of Table 3.1 shows what we have already seen from Figure 3.8; on average the gender wage gap is of the order of 10 per cent. Column 2 shows that wages in 2014 and 2018 were by 15.9 per cent and 17.6 per cent lower than in 2010 respectively and that the gender wage gap remains the same even after we take account of the different overall wage levels over time. Finally, column 3 confirms that the wage gap is not statistically significantly different in 2014 and 2018 compared to 2010 as can be seen by the fact that the coefficients of the interaction terms are not statistically significant.

We turn next to the investigation of the wage gender gap after *conditioning* on demographic (age) and productive characteristics (education, tenure, occupation, managerial position) of the individuals involved, and features of the workplaces in which they are employed (size, part of a multinational company). The results are presented in Table 3.2.

The following results stand out from the table. First, the conditional gender wage gap in 2010 and 2014 is of the order of 7 per cent (see column 1 of Table 3.2). Second, in 2018 the gender wage gap is wider (see interaction term of wage with gender). Third, the age profile of wage rates is steeper for men than it is for women. Fourth, and notwithstanding the previous finding, an additional year of tenure is associated with a higher rate of return among women than among men. Fifth, the rates of return to education are higher for men than for women. Here, of course, this might reflect the segregation by subject of education rather than

a difference in the return to the same subjects but unfortunately such information is not available.

Table 3A.1

OLS regression of hourly wage rate (unconditional wage gap), 2010-18

	(1)	(2)	(3)
VARIABLES	Gender dummy only	Add year dummies	Add interactions of gender dummy with year dummies
Women	-0.102*** (0.004)	-0.101*** (0.004)	-0.106*** (0.006)
2014		-0.159*** (0.004)	-0.163*** (0.005)
2018		-0.176*** (0.004)	-0.177*** (0.005)
Women # 2014			0.010 (0.009)
Women # 2018			0.003 (0.008)
Constant	2.087*** (0.002)	2.193*** (0.003)	2.195*** (0.004)
Observations	70,747	70,747	70,747
R-squared	0.012	0.041	0.041
Standard errors in parentheses			
*** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10			

Table 3A.2

OLS regression of hourly wage rate (conditional wage gap), 2010 -18

	Both genders		Men	Women	
Variables	(1)	(0.004)	(2)	(3)	
Women	-0.072***	(0.004)			
<i>Single-digit occupation (Legislators, senior officials and managers is the reference group)</i>					
Professionals	-0.094***	(0.008)	-0.103***	(0.010)	-0.074*** (0.012)
Technicians	-0.143***	(0.008)	-0.154***	(0.011)	-0.120*** (0.013)
Clerks	-0.217***	(0.008)	-0.246***	(0.010)	-0.179*** (0.012)
Service workers	-0.250***	(0.008)	-0.245***	(0.011)	-0.247*** (0.013)

YOUNG WOMEN IN THE GREEK LABOUR MARKET

	Both genders		Men		Women	
Skilled agricultural workers	-0.294***	(0.039)	-0.292***	(0.045)	-0.275***	(0.082)
Craft & related trades workers	-0.193***	(0.009)	-0.196***	(0.011)	-0.257***	(0.017)
Plant & machine operators	-0.212***	(0.009)	-0.216***	(0.011)	-0.296***	(0.017)
Elementary occupations	-0.343***	(0.009)	-0.356***	(0.011)	-0.324***	(0.014)
<i>Position at work (Non managerial position is the reference)</i>						
Manager	0.225***	(0.004)	0.218***	(0.006)	0.239***	(0.007)
<i>Firm size (firm with 50-249 employees is the reference group)</i>						
10-49 employees	-0.082***	(0.003)	-0.091***	(0.004)	-0.069***	(0.005)
250-499 employees	0.032***	(0.004)	0.038***	(0.005)	0.022***	(0.006)
500-999	0.048***	(0.004)	0.053***	(0.006)	0.041***	(0.006)
1000+	0.061***	(0.004)	0.073***	(0.006)	0.047***	(0.006)
<i>Age group (age group 15-19 is the reference group)</i>						
20-24 years old	-0.003	(0.028)	0.017	(0.039)	-0.032	(0.039)
25-29 years old	0.063*	(0.027)	0.069~	(0.038)	0.048	(0.038)
30-34 years old	0.165***	(0.027)	0.177***	(0.038)	0.141***	(0.038)
35-39 years old	0.247***	(0.027)	0.263***	(0.038)	0.216***	(0.038)
40-44 years old	0.288***	(0.027)	0.307***	(0.038)	0.251***	(0.038)
45-49 years old	0.317***	(0.027)	0.347***	(0.038)	0.266***	(0.038)
50-54 years old	0.331***	(0.028)	0.357***	(0.039)	0.284***	(0.038)
55-59 years old	0.324***	(0.028)	0.343***	(0.039)	0.293***	(0.039)
60-64 years old	0.325***	(0.029)	0.345***	(0.040)	0.297***	(0.041)
65+ years old	0.366***	(0.036)	0.386***	(0.047)	0.338***	(0.055)
<i>Education level (Primary school is the reference group)</i>						
High school	0.022***	(0.006)	0.027***	(0.007)	0.001	(0.010)
Upper high school	0.044***	(0.005)	0.047***	(0.006)	0.023*	(0.009)
Post-secondary	0.102***	(0.007)	0.107***	(0.008)	0.073***	(0.011)
Colleges	0.124***	(0.007)	0.133***	(0.009)	0.092***	(0.011)
Bachelor/Master's	0.292***	(0.007)	0.309***	(0.009)	0.254***	(0.011)
PhD	0.463***	(0.027)	0.478***	(0.034)	0.431***	(0.042)
Tenure (in years)	0.015***	(0.000)	0.014***	(0.000)	0.017***	(0.000)
Multinational	0.065***	(0.003)	0.060***	(0.004)	0.072***	(0.004)
<i>Time dummies (2010 is the reference year)</i>						
2014	-0.172***	(0.004)	-0.171***	(0.004)	-0.177***	(0.004)
2018	-0.193***	(0.004)	-0.195***	(0.004)	-0.210***	(0.005)
<i>Time/gender interaction</i>						
Gender*2014	-0.003	(0.006)				
Gender*2018	-0.018**	(0.006)				
Constant	2.357***	(0.006)	2.324***	(0.070)	2.495***	(0.150)

DOCUMENTING THE STATUS OF YOUNG MEN AND WOMEN

	Both genders	Men	Women
Observations	70,747	42,316	28,431
R-squared	0.564	0.555	0.578
Standard errors in parentheses			
*** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10			

In summary, a gender wage gap in Greece exists. The unconditional figure is around 10 per cent. The gap is lower for younger individuals than for older individuals. The conditional wage gap is of the order of 7 per cent. Women appear to have lower returns to education and to age but have a slightly higher return to an additional year of tenure.

THE IMPACT OF THE PANDEMIC ON THE GREEK LABOUR MARKET

Daphne Nicolitsas and Kyriakos Filinis



4.1 Introduction

Global economic developments in 2020 and 2021 have been shaped by the spread of the Covid-19 virus as the pandemic itself, but also measures taken to contain it, have led to a sharp curtailment of economic activity. In 2020, European Union (EU) GDP contracted by 6 per cent on average. Economies highly dependent on tourism - such as Spain (-10.8 per cent), Croatia (-8.0 per cent), Greece (-8.2 per cent), Malta (-7.8 per cent) and Portugal (-7.6 per cent) - have been severely hit but even economies with a more balanced composition of output (Italy -8.9 per cent, France -7.9 per cent) experienced a deep recession. In the first half of 2021, EU output rebounded by 6.3 per cent y-o-y and stands at 97.6 per cent of output in the first half of 2019.

Notwithstanding that the pandemic is not over, hence it is not clear how the final months of 2021 will turn out, it looks as if output in 2021 could approach 2019 output. Such a development would imply that a year of economic development has been lost. The loss in output would have to be measured against what would have taken place had the pandemic not occurred. Thus, taking the example of the EU, the 2020 growth rate of EU GDP was expected (in late 2019¹⁸) to be 1.4 per cent which should be considered when

¹⁸ European Commission 2019 Autumn forecasts.

calculating the opportunity cost of the pandemic. EU 2020 GDP thus turned out to be 7.2 per cent lower than what it otherwise would have been.

Most economies have adopted measures to protect jobs amidst this recession (Mayhew and Anand 2020). As a result, the EU unemployment rate increased only marginally; from 6.6 per cent in the last quarter of 2019 to 7.2 per cent in the last quarter of 2020 and 7.8 per cent in the first quarter of 2021. While it is not clear how long the measures to protect jobs will be in place, these measures have meant that human capital erosion for employees already in employment was to some extent prevented. For individuals now entering the labour market, finding a job has inevitably been more difficult.

Greek GDP declined by 8.2 per cent in 2020. In the first semester of 2021 Greek GDP increased by 7.2 per cent on a y-o-y basis and stood at 97.7 per cent of its level in the first half of 2020. In the last quarter of 2020, the unemployment rate stood at 16.2 per cent from 16.8 per cent in the last quarter of 2019. In the second quarter of 2021 – the latest available quarterly data – the unemployment rate stood at 15.8 per cent from 16.7 per cent a year earlier and from 16.9 per cent two years earlier.

The pandemic has not destroyed capital stock and to a certain extent, as evidenced from the very mild deterioration in unemployment rates, work skills have been preserved. Nevertheless, the pandemic has had an impact on human capital as education was severely disrupted. The pandemic has also prompted changes in the structure of the economy that are likely to prove long lasting. The so-called remote economy (Murray, 2020) is likely to become widespread with consequences for real estate, transportation systems, etc.; businesses will likely turn to using more automated systems while some sectors are not expected to recover as swiftly (e.g., airline travel).

In this chapter we document briefly the changes in employment and unemployment that took place in the Greek labour market

between 2019 and 2021. The picture that emerges is one of, so far, limited impact of the deterioration in output on the number of those already employed, a significant decrease in the hours of work, a prolongation of the unemployment spell of those entering the labour market for the first time and those already unemployed. Some young individuals appear to have extended their time in education rather than entering the labour market at a time when labour demand was low.

The chapter is organized as follows: the next section outlines the measures adopted to mitigate the impact of the pandemic on the labour market, Section 3 presents developments regarding numbers employed and hours of work by gender, age group and economic activity. Section 4 focuses on the incidence and duration of unemployment. Section 5 summarizes and concludes.

4.2 Employment support measures to mitigate the impact of the pandemic

In March 2020 and as the pandemic was gaining pace, the Greek government took both *direct measures* to protect the jobs and the well-being of those employed and to encourage the creation of new jobs as well as *indirect measures* to alleviate the impact of the slowdown in product demand that businesses were faced with. The main direct and indirect measures are presented below.

4.2.1 Direct measures

Job retention schemes

During the pandemic two job retention schemes were implemented: first, the temporary suspension of employment contracts and second, the “SYN-ERGASIA” employment support mechanism.

Suspension of employment contracts

Private sector employers, whose businesses were in lockdown following a state decision, or employers who were severely hit by the Covid-19 crisis could suspend the employment contracts of all or some of their employees for as long as the lockdown or the effects of the pandemic lasted. Employers who made use of this measure were prohibited from dismissing employees during the suspension period, and after that and for an equal period of time they were obliged to keep the number of employees stable and under the same employment terms. In most instances, employees whose employment contracts were suspended were entitled to a special purpose compensation of 534.00€/month. In nominal terms this is around 33 per cent of the 2018 monthly average gross pay and 82.2 per cent of the minimum wage although in real terms it is higher as the employee social security contributions were covered by the state and the special purpose compensation was tax-free. The sectors of economic activity deemed to be affected by the pandemic were identified by the Ministry of Finance and were updated periodically as the pandemic progressed. From May 2021, the number of employers who can make use of this measure has been reduced substantially, while strict eligibility criteria were introduced such as for example, the extent of turnover reduction. Until March 2021, 124,400 private sector employers had suspended the employment contracts of 547,000 employees.

“SYN-ERGASIA” employment support mechanism

SYN-ERGASIA is a short-time work scheme under which employers in all sectors can reduce their full-time employees' working hours up to 50 per cent, paying them the corresponding salary. The state covers 60 per cent of the net salary loss and the corresponding social security contributions. The mechanism was launched in June 2020.

For employers to use the mechanism, they should meet a criterion of turnover reduction (e.g., a reduction in turnover of the order of 20 per cent compared to a reference time period) and employers are prohibited from dismissing employees covered by the mechanism. Until February 2021, 1,600 employers had made use of the mechanism and 17,000 employees were included in this.

Job creation schemes

Employment subsidy programme

The programme was launched in October 2020, and it is still in force. Under the programme, the state covers the employer and employee social security contributions of newly hired employees (either full-time or part-time) for a six-month period. Eligible employees should not have an employment contract in force for at least one month prior to the subsidized recruitment. It is not necessary to be registered as unemployed at the Greek Manpower Organisation (OAED). In the case of recruitment of long-term unemployed, an additional subsidy of 200.00€ per month is granted.

During the programme, employers should maintain, on average, the same number of employees. After the end of the program, employers will bear the cost of social security contributions if they retain the subsidized employee. So far, 30,000 jobs have been subsidized, of which 4,300 are covered by previously long-term unemployed individuals.

Measures to protect employees' well-being at the workplace

Employees who are not fully vaccinated or have not fallen ill with the Covid-19 virus must conduct a rapid test or a PCR test on a weekly basis at their own cost. In some sectors, such as the food and beverage service activities and the tourism sector, employees

must conduct two tests per week. Furthermore, in some sectors, such as health or elderly protection services, employees, who have not fallen ill with the virus must be fully vaccinated. Otherwise, they cannot provide their work.

To reduce the chance of the virus spreading in the workplace, employers were obliged to use teleworking at a rate, which in March 2021 covered 60 per cent of the total number of employees. In addition, employees who belong to vulnerable groups are eligible for special purpose leave if the exercise of their duties presupposes contact with the public or if they cannot work remotely.

Measures to address work-life balance during Covid-19

During the pandemic, other measures were introduced to facilitate the work-life balance due to Covid-19. More specifically the following measures were introduced:

- The special purpose leave for employees with Covid-19 infected children (2/3 paid by the employer and 1/3 paid by the state).
- The special purpose leave for parents with children attending schools whose operation had been suspended (for every 4 days of special purpose leave, the first two days are paid by the employer, the third one is subsidized by the state and the fourth day is deducted from the annual leave of employee).
- A working time arrangement in the case of quarantined employee. Employees who are set in quarantine may work remotely. Where this is not possible, employees may be asked, once they return in the workplace, to work for an extra hour per day to cover up to a maximum of 50 per cent of the working hours lost.

4.2.2 *Indirect measures*

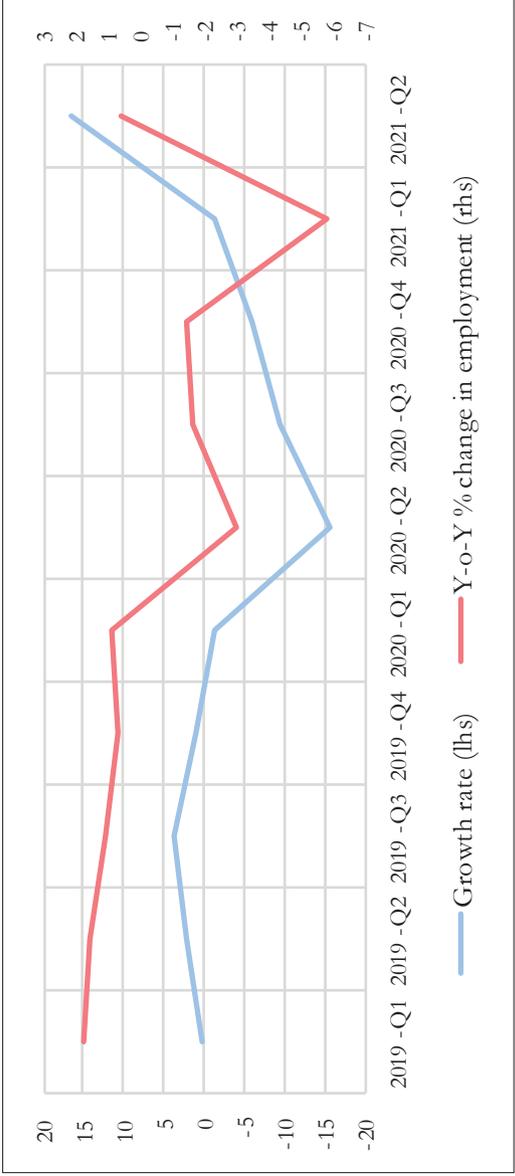
During the pandemic, the government also implemented additional measures which indirectly contributed to employment protection or/and required commitments by employers to keep the number of their employees stable. Such measures included repayable advance payments to enterprises, mandatory rent reductions in business properties in the sectors hit by the pandemic, and the suspension of tax and social security obligations for businesses hit by the pandemic.

4.3 Employment and hours of work, 2019-2021

The fact that individuals employed were protected against dismissals despite the severe economic recession is apparent until the end of the first quarter of 2021 (Betcherman *et al.* 2021). Output declined by 8.2 per cent on y-o-y basis in 2020, while employment declined by only 1.2 per cent. By the end of the second quarter of 2021, however, while output is around 1.8 per cent lower than the corresponding quarter of 2019, employment is around 3.7 per cent lower, suggesting thus that by that point the decline in employment had matched, and even exceeded, the decline in output. This last development reflects a very bad first quarter in terms of employment (-5.8 per cent). In the second quarter employment increased compared to a year earlier (0.6 per cent) (Figure 4.1).

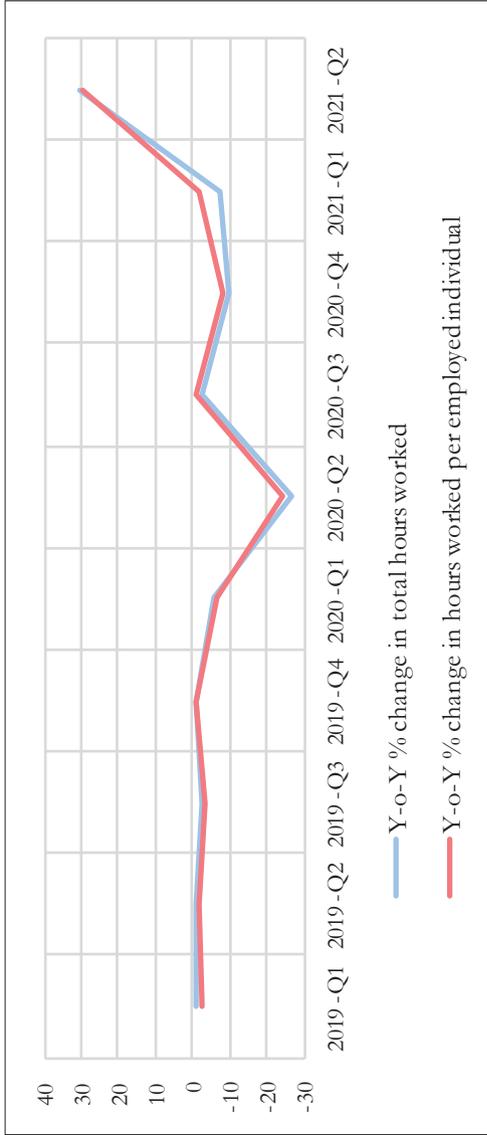
Data on the hours of work show that in the second quarter of 2020 total hours decreased by around 30 per cent (Figure 4.2) suggesting that output per hour of work increased. By the second quarter of 2021 hours of work are 1.8 per cent lower than hours of work in the corresponding quarter of 2019, suggesting a return to normal working hours.

Figure 4.1
Annual growth rate and annual % change in employment, 2019 Q1 - 2021 Q2



Source: Eurostat, National Accounts (Domestic concept for employment).

Figure 4.2
Annual change in total hours of work and hours worked per employed individual, 2019-Q1 – 2021-Q2



Source: Eurostat, National Accounts (Domestic concept for employment and hours).

Hours of work declined both because some individuals, despite being counted as employed, did not work at all and because several individuals worked for fewer hours. Several individuals also lost their jobs which explains why the total hours worked (blue line) decreased more than the hours per person employed (red line) at the end of 2020 and the beginning of 2021.

The distribution of the population by type of activity during the period 2018-2020 is presented in Table 4.1 The increase in the percentage of individuals who are not working because they are *temporarily out of work* is clear – while in the second quarter this percentage in 2018 and 2019 is less than 1 per cent, it approaches 9.5 per cent in 2020. In the last quarter of 2020, the percentage of individuals temporarily out work is again high, compared to the same time in previous years. The increase in the percentage of individuals out of work has resulted in a reduction in the self-employed (2.8 percentage points between the second quarter of 2020 and the second quarter of 2019), a reduction in employees with a permanent contract (around 4.7 percentage points between the second quarter of 2020 and the second quarter of 2019) and a decline in employees on a fixed-term contract (around 1.8 percentage points between the second quarter of 2020 and the second quarter of 2019). The other change which is noticeable from Table 4.1 is an increase in the share of individuals who are not active. Finally, there is also a slight increase in the percentage of individuals in formal education – a trend observed internationally (see, *inter alia*, FT 2020) – which is more evident for younger individuals (e.g., in their mid to late 20s).

As a result of the policies introduced by the government to safeguard jobs and individuals' income, we find that the share of dependent employees who report subsidies as the primary source of income has increased from 0.3 per cent in the second quarter of 2019 to 3.3 per cent in the second quarter of 2020.

Table 4.1

Percentage of individuals in each of the following activity status

A. Both genders – all age groups

	Unem- ployed	In formal education	Not active	Tempora- rily absent from work	Self- employed	Permanent employment	Fixed term employment	Family worker
2018A	10.96	8.79	39.47	1.45	11.73	23.75	2.40	1.45
2018B	9.93	8.86	38.89	0.99	12.35	24.06	3.43	1.49
2018C	9.56	8.46	39.25	2.79	12.15	22.82	3.49	1.47
2018D	9.68	8.78	39.42	1.45	12.01	24.41	2.89	1.36
2019A	9.97	8.89	39.20	1.39	11.76	24.75	2.80	1.23
2019B	8.86	8.95	38.63	0.89	12.28	25.15	3.88	1.35
2019C	8.55	8.54	39.18	3.02	11.81	23.52	4.08	1.29
2019D	8.68	8.91	39.37	1.19	11.88	25.16	3.57	1.25
2020A	8.22	9.09	40.16	3.92	10.91	23.87	2.70	1.12
2020B	8.48	9.17	39.93	9.47	9.48	20.46	2.04	0.98
2020C	8.35	8.67	39.65	3.71	11.76	23.78	2.83	1.25
2020D	8.28	9.10	39.79	4.99	10.91	23.51	2.47	0.95

B. Men only – all age groups

2018A	10.32	8.90	31.22	1.22	16.91	27.93	2.34	1.16
2018B	9.17	8.96	30.86	0.66	17.45	28.42	3.29	1.20
2018C	8.64	8.52	31.09	2.45	17.29	27.39	3.47	1.16
2018D	8.84	8.79	31.12	1.31	17.14	28.86	2.90	1.03
2019A	9.19	9.02	31.18	1.25	16.83	28.81	2.80	0.91
2019B	8.28	9.04	30.51	0.69	17.37	29.28	3.80	1.02
2019C	7.88	8.75	30.85	2.77	16.92	27.80	4.09	0.95
2019D	8.29	9.00	31.03	1.03	16.88	29.22	3.58	0.97
2020A	8.09	9.25	31.85	3.93	15.61	27.73	2.71	0.84
2020B	8.33	9.35	31.67	9.80	13.54	24.40	2.15	0.77
2020C	7.80	8.97	31.30	3.23	16.68	28.10	2.92	0.99
2020D	7.82	9.39	31.64	4.94	15.75	27.39	2.35	0.72

C. Women only – all age groups

2018A	11.56	8.70	47.16	1.66	6.91	19.85	2.45	1.72
2018B	10.65	8.76	46.37	1.30	7.61	20.00	3.55	1.76
2018C	10.43	8.41	46.84	3.11	7.36	18.57	3.50	1.77

DOCUMENTING THE STATUS OF YOUNG MEN AND WOMEN

2018D	10.46	8.76	47.16	1.57	7.23	20.26	2.89	1.67
2019A	10.70	8.76	46.68	1.52	7.03	20.97	2.81	1.53
2019B	9.40	8.87	46.20	1.06	7.53	21.31	3.96	1.66
2019C	9.18	8.35	46.93	3.25	7.06	19.54	4.08	1.61
2019D	9.03	8.83	47.14	1.33	7.22	21.37	3.55	1.52
2020A	8.35	8.95	47.90	3.90	6.54	20.28	2.68	1.39
2020B	8.62	9.00	47.61	9.16	5.70	16.80	1.94	1.17
2020C	8.86	8.38	47.43	4.16	7.18	19.76	2.75	1.49
2020D	8.71	8.84	47.37	5.04	6.41	19.89	2.57	1.16

The slowdown in demand was not felt to the same extent in all sectors and as a result the percentage of individuals being away from work on a temporary basis varied hugely from a low of 5.4 per cent in the primary sector to a high of 71 per cent in the entertainment sector. Table 4.2 also shows the percentage of men and women in each sector who were temporarily out of work. So, for example, in the Mining and Quarrying sector 10.7 per cent of men were temporarily away from work, while 25.2 per cent of women were temporarily away from work. The average of 11.5 per cent of employees in the sector arises from the fact that the sector is male dominated (95 per cent of employees are men). Mining and Quarrying is not the only sector in which the percentage of women employees temporarily out of work is higher than the percentage of male employees. This can be explained through first, the different occupations in which men and women are employed and second, the likelihood that it is more necessary for women to stay at home with children who were not at school (Furman *et al.* 2021).

Table 4.2

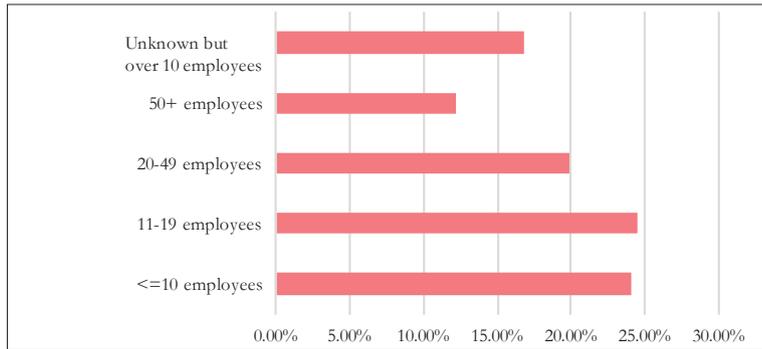
Percentage of employees absent from work in 2020-Q2 by sector of economic activity

	Total	Men	Women
Agriculture, forestry & fishing	5.40	4.21	7.32
Mining & Quarrying	11.53	10.72	25.16
Manufacturing	16.18	15.76	17.26
Electricity, gas, steam and air conditioning supply	8.23	10.88	1.57
Water supply; sewerage, waste management and remediation activities	5.85	3.94	12.37
Construction	26.22	27.36	8.40
Wholesale and retail trade; repair of motor vehicles and motorcycles	22.92	20.53	26.05
Transportation and storage	13.78	11.87	21.78
Accommodation and food service activities	61.33	60.27	62.65
Information and communication	9.53	7.21	12.64
Financial and insurance activities	11.29	6.61	16.40
Real estate activities	25.20	19.74	35.88
Professional, scientific and technical activities	20.65	17.83	23.69
Admin	23.75	23.43	24.08
Public administration and defence; compulsory social security	7.86	6.14	10.78
Education	37.03	32.94	39.24
Human health and social work activities	13.36	7.06	16.56
Arts, entertainment	71.07	65.90	75.95
Other service activities	33.65	29.46	36.78
Activities of households as employers	19.49	9.19	20.25
Activities of extraterritorial organizations and bodies	8.26	0.00	12.50

When we look at the use of temporary absence from work according to firm size we find (Figure 4.3) that this is more likely to be the case in smaller than larger firms. As this could reflect differences in the size distribution by sector of economic activity, we focus on two sectors badly hit by the pandemic – the trade/distribution sector and the accommodation and food services activities sector. The data (Table 4.3) suggest that while in the trade/distribution sector smaller firms use time off more often than larger firms, this is not as obvious in the accommodation and food services sector.

Figure 4.3

Percentage of employees temporarily away from work by firm size, 2020-Q2



Source: ELSTAT, Labour Force Survey Q2-2020

Table 4.3

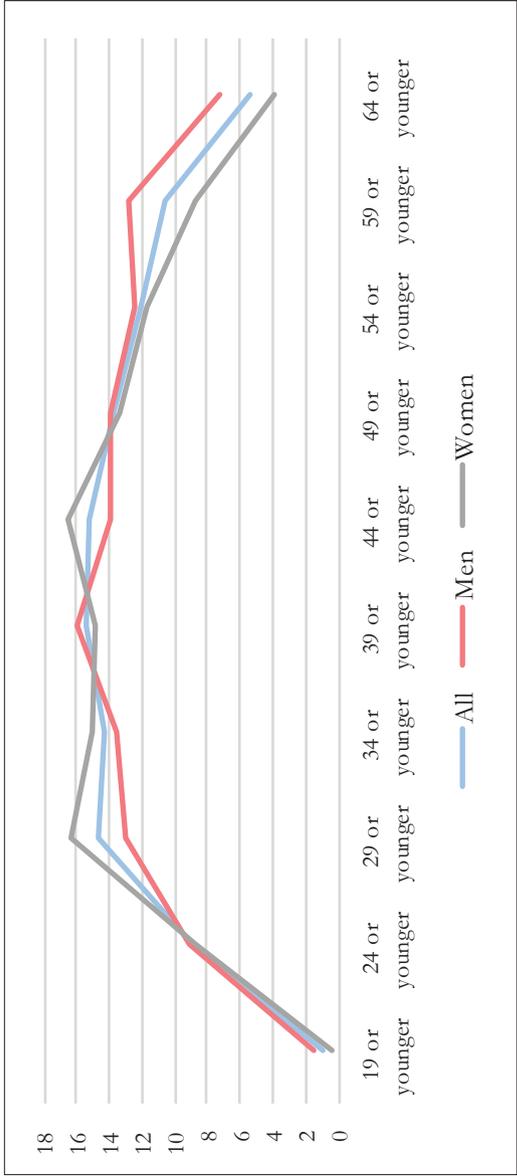
Percentage of employees temporarily away from work by firm size in two sectors, 2020-Q2

Firm-size	Wholesale & Retail trade	Accommodation & Food service activities
=10 employees	27.41	56.00
11-19 employees	15.98	60.52
20-49 employees	16.87	50.35
50+ employees	17.39	53.94
Unknown but over 10 employees	17.22	67.28

Source: ELSTAT, Labour Force Survey Q2-2020.

An additional dimension along which we look for differences regarding the temporary absence from work is age. If we compute the difference between the percentage of employed individuals who were on temporary work in the second quarter of 2020 and the same percentage in the second quarter of 2019, it turns out (Figure 4.4)

Figure 4.4
 Difference (in percentage points) between the second quarter of 2020 and the second quarter of 2019 in the share of individuals on temporary work, by age group and gender



Source: ELSTAT, Labour Force Survey, 2019-Q2 & 2020-Q2

that it is mostly middle-aged individuals who have been affected by the temporary absence from work. We find no significant differences by gender.

4.4 Unemployment rates

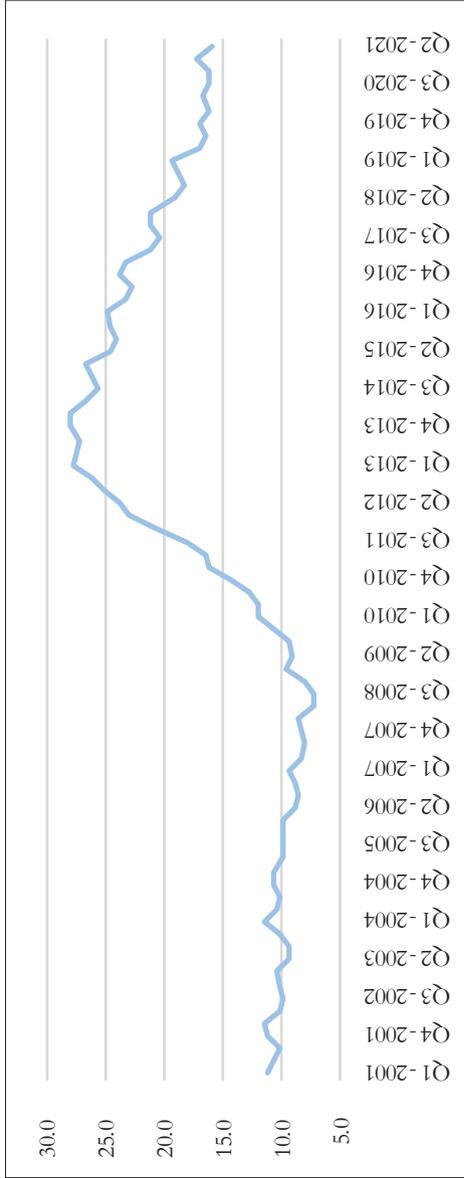
The pandemic has not led to an increase in the unemployment rate in Greece. The unemployment rate in Greece was declining before the pandemic, from a record level, since 2014. The decline slowed down substantially in 2020 and was halted in early 2021 (Figure 4.5).

The fact that the unemployment rate has not shown signs of increasing despite the decline in output is due on the one hand, to the fact that the loss of jobs has been prevented through government subsidies and on the other hand, to the fact that a significant part of the population that would otherwise be looking for a job decided to abstain from job search as they feared no jobs would be available – discouraged worker effect.

4.5 Summary and conclusions

The short-term registered impact from the pandemic on the Greek economy has so far been rather benign; 2021 output is likely to be close to the 2019 level, while the unemployment rate has not increased compared to its 2019 level. Nevertheless, the pandemic has put pressure on the number of individuals active in the labour market. The main challenge going forward is to bring the individuals that left (or did not enter) the labour market, into the labour market.

Figure 4.5
Unemployment rate, 2001-Q1 to 2021-Q2 (seasonally unadjusted data)



Source: ELSTAT, Labour Force Surveys 2001-Q1 to 2021-Q2

PART II

EDUCATION, TRAINING, AND SKILLS DEVELOPMENT



HIGHER EDUCATION, RESEARCH AND THE LABOUR MARKET

Charalampos Chrysomallidis



The scientific and research capabilities and potential of a country depend to a large extent on its educational level, which, along with the necessary infrastructure, is a prerequisite for any research activity. The OECD views highly qualified individuals as “knowledge repositories” and “carriers of knowledge flow” (Botev et al. 2019). Human capital is developed through education, which cultivates appropriate general and more specific skills, considered the most important inputs for (future) research activity. Human resources are one of the ten main pillars that determine EU member states’ performance on the European Innovation Scoreboard. More specifically, the relevant indicators are: the number of new doctoral graduates, the share of population with tertiary education, and participation in life-long learning (European Commission 2020).

Several theoretical and analytical schemes have been developed with these pillars in mind, such as the “triple helix” theory and the knowledge triangle approach that focus on the interaction between research, education and innovation (Dasgupta and David 1994; Florida and Cohen 1999; Etzkowitz et al. 2000; Phan and Siegel 2006; Gulbrandsen and Slipersaeter 2007; Rothaermel et al. 2007; O’Shea et al. 2008). With a theoretical framework of this sort in mind, this chapter analyses the participation of the population in higher education¹⁹ in Greece, with an emphasis on

¹⁹ According to the ISCED codification: Undergraduate studies – ISCED 6, postgraduate studies – ISCED7, doctoral studies – ISCED 8

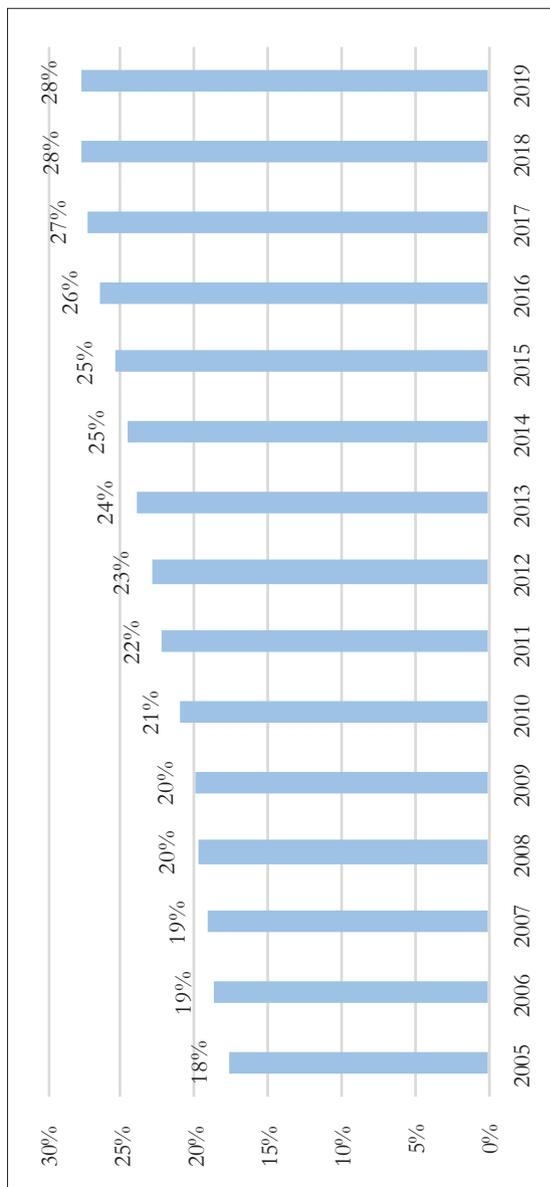
young people aged 20–29 years old (or up to 34 years old in the case of postgraduate and, mainly, doctoral studies), both in terms of input (attainment and enrolment in higher education) and output (graduation from higher education). More specifically, the first section of the chapter refers to the participation of the general population and young people in higher education, presenting data on tertiary education graduates and students. The second section refers to the labour status of tertiary education graduates, while the third presents qualitative data on the participation of human capital in the national research system with an emphasis on young people. The fourth section examines linkages between the productive structure in Greece and the national research, technological development and innovation (RTDI) system. The fifth section focuses on the participation of women, both in higher education and the RTDI system, while a final section summarizes the findings and concludes. The data presented refer to the period both before and after the onset of the economic crisis in Greece, as well as to cross-country comparisons, examining Greece's position in the EU-27. An appendix provides an overview of Greece's educational system.

5.1 Participation of the population in higher education

5.1.1 Population by educational attainment level

Despite the economic crisis of the 2010s, the proportion of the population with at least one tertiary education degree has risen steadily in Greece, from roughly 18 per cent in 2005 to 28 per cent in 2019 (Figure 5.1). This indicates that the tertiary education system is growing in Greece in terms of education output, as it has gradually become more inclusive, contributing to the development of human resources and the workforce.

Figure 5.1
Share of the population aged 15–64 who have completed ISCED6–8 studies in Greece, 2005–2019



Source: Eurostat, National Accounts Data.

Figure 5.2
Share of the population aged 15–64 who have completed ISCED5–8 studies in the EU member states, 2019



Source: Eurostat, National Accounts Data.

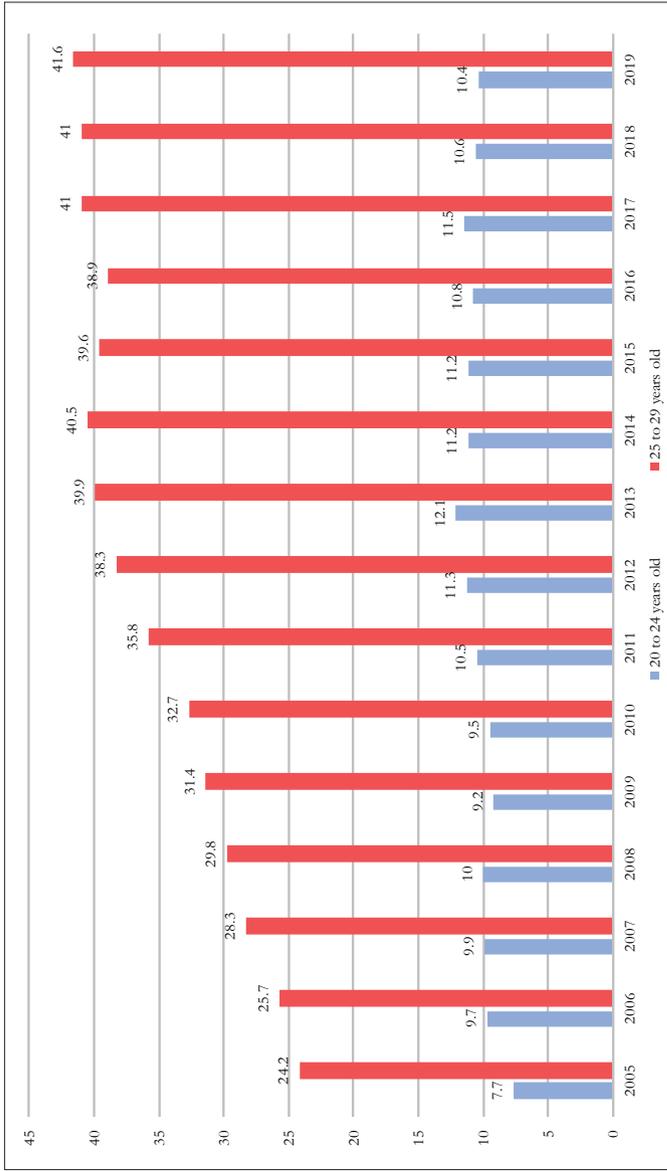
However, when compared to other EU member states, Greece ranks 17th, scoring lower than the EU average (Figure 5.2). Luxembourg, Ireland and Cyprus have the highest shares, while countries like Germany and Italy also record lower rates than the EU average, most likely due to the greater importance placed on technological and vocational education in these countries.

5.1.2 Participation of young people in higher education

Highlighting the participation of young people in higher education, Figure 5.3 presents data on the percentage of the population aged 20-24 and 25-29 who completed tertiary education studies (undergraduate studies—ISCED 6, postgraduate studies—ISCED7 or doctoral studies—ISCED 8) in Greece between 2005 and 2019. The participation rate remains relatively stable (at around 10 per cent) for young people aged 20-24, while the share for people aged 25-29 has almost doubled, from 24 per cent in 2005 to 42 per cent in 2019.

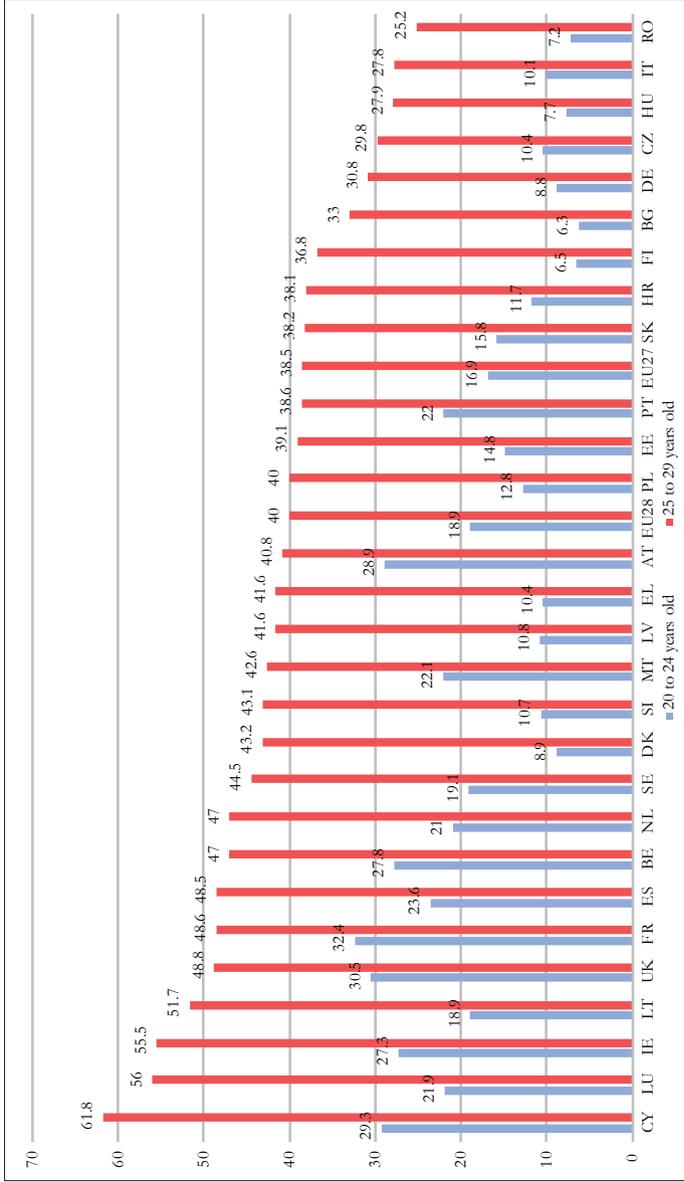
A cross-country comparison reveals that Greece is almost in the middle of the ranking (14th in the EU27) and near the EU27 average, in terms of the share of the population aged 25-29 with tertiary education degree. However, it is in a much lower position (21st) in terms of the 20–24 age group (Figure 5.4), indicating that young people in Greece tend to graduate from tertiary education at a relatively older age.

Figure 5.3
Share of the population aged 20–29 who have completed ISCED6–8 studies in Greece, 2005–2019



Source: Eurostat, National Accounts Data.

Figure 5.4
Share of the population aged 20–29 who have completed ISCED5–8 studies in the EU member states, 2019



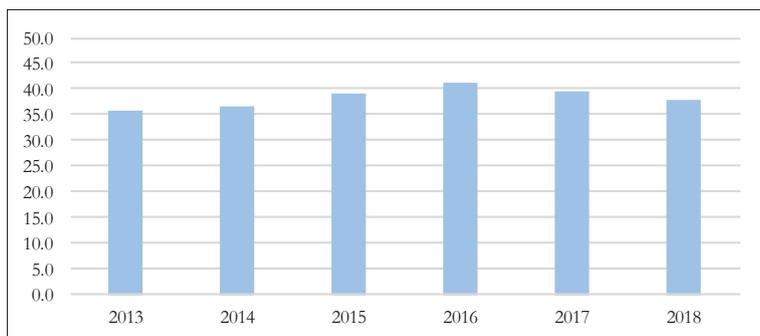
Source: Eurostat, National Accounts Data.

5.1.3 Tertiary education graduates in Greece

Beyond the presentation of data on general higher educational attainment levels as a share of the population, it is also important to delve deeper into the different levels of higher education pursued by young Greeks. Figure 5.5 presents data on new bachelor holders between 2013 and 2018. Their numbers seem to fluctuate between 36 and 42 individuals per 1000 in the 20-29 age group and have been in decline since 2016.

Figure 5.5

Tertiary education graduates (ISCED6) in Greece per 1000 of the population, aged 20-29



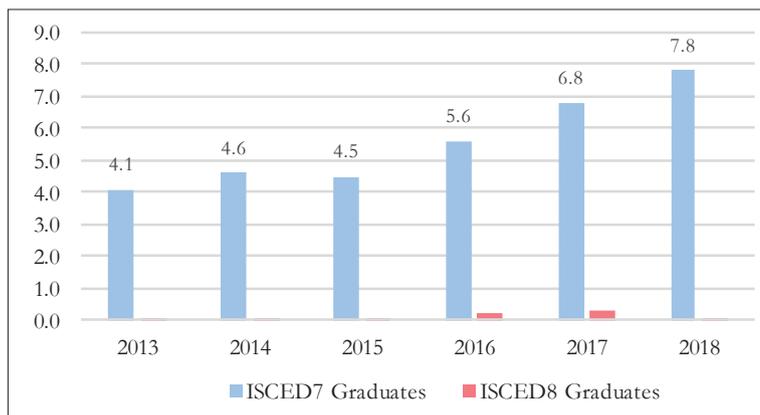
Source: Eurostat, Education Statistics.

Figure 5.6 presents data on graduates in Greece at the postgraduate level (Master's degree and Ph.D.) per thousand inhabitants aged 20–29. Interestingly, the share of new Master's degree holders almost doubled in Greece between 2013 and 2018, implying increased interest in postgraduate studies.

The reasons for this trend may relate to the negative impact of the economic crisis on Greek households' ability to financially support their offspring's studies abroad, as well as to the perception that obtaining a postgraduate degree facilitates access to the labour

Figure 5.6

Tertiary education graduates (ISCED7, ISCED8) in Greece, per 1000 of the population, aged 20–29

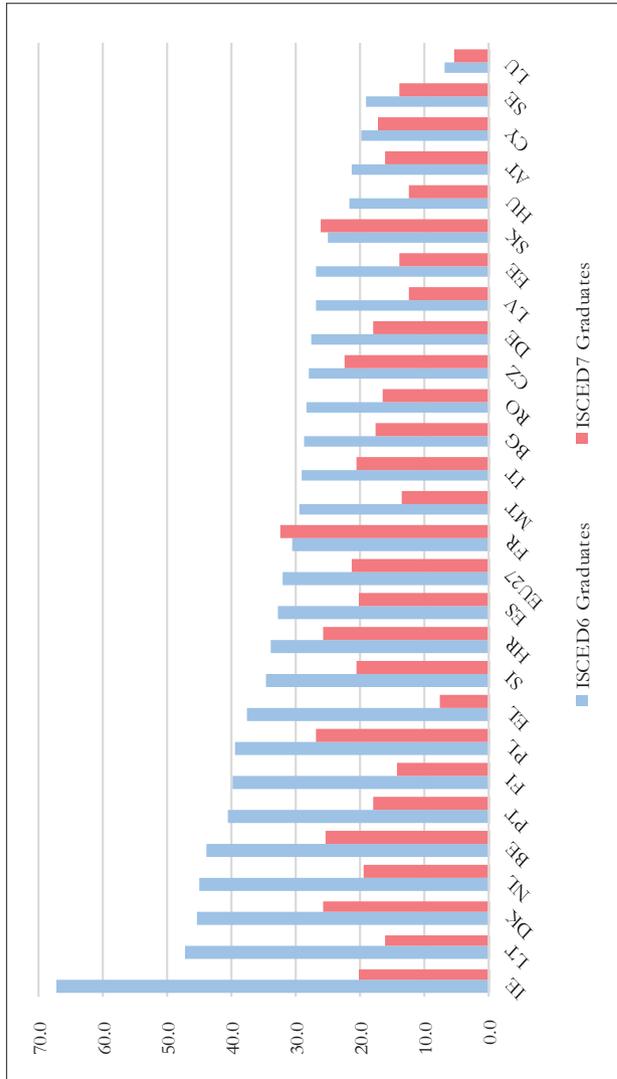


Source: Eurostat, Education Statistics.

market. This perception has probably been strengthened by young people's inability to find jobs during the crisis. Given low labour demand, young Greeks went back to university to upgrade their qualifications and skills' profile to compete more successfully in a tight labour market.

Compared to other EU member states, Greece ranks 9th in terms of ISCED 6 graduates, which is above the EU27 average, but ranks only 26th when it comes to graduates of Master's programmes (Figure 5.7). This significant difference may relate to the fact that postgraduate studies are a rather recent addition to the activities of Greek higher education institutes (HEIs), as most Master's programmes were established in the 2000s. Moreover, one should also take into consideration the very high number of Greek ISCED7 students who complete their postgraduate studies abroad. These graduates do not appear in these statistics.

Figure 5.7
Tertiary education graduates (ISCED6, ISCED7) in EU member states, per 1000 of the population aged 20–29, 2018



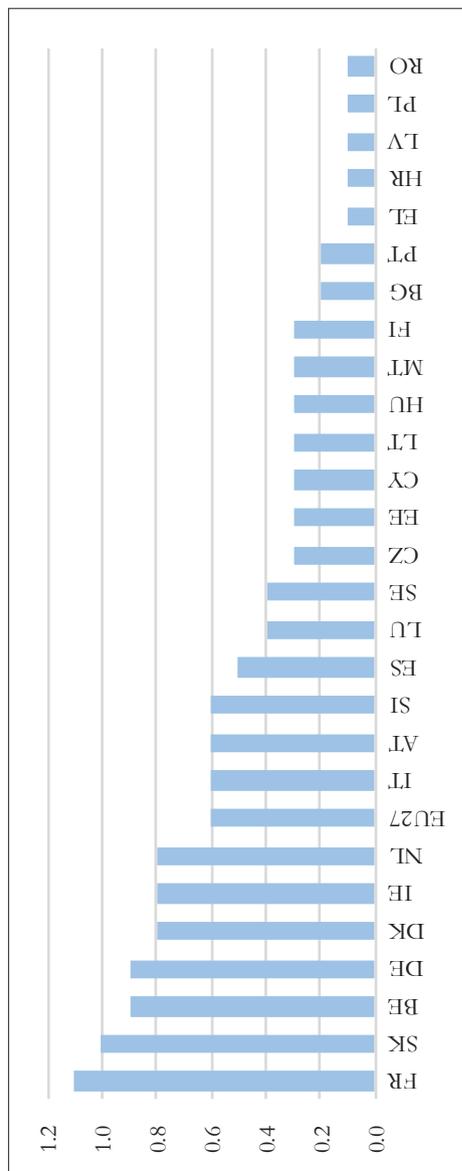
Source: Eurostat, Education Statistics.

A similar picture emerges when it comes to new Ph.D. holders, where Greece ranks 23rd (Figure 5.8).

Going beyond the analysis of higher education levels, the literature on specialized human capital also emphasizes the education of (young) scientists; sectors like science, technology, engineering and mathematics (so-called STEM) are considered to relate closely to innovative activities, enabling them and fostering their integration into production (OECD 2016, Durazzi 2019, Freeman et al. 2019). These parameters are also viewed as a proxy for an economy's capacity and potential for innovation, as these fields of scientific and academic specialization tend to contribute the most to technology-intensive innovation, in terms of both products processes. The rationale underpinning this approach is closely and directly related to the pressures states face from global competition at a time when future economic growth and social progress are coming to rely increasingly on innovation (Kärkkäinen and Vincent-Lancrin 2013). In addition to technical know-what and know-how, core skills for innovation include critical thinking, creativity, problem-solving, collaboration and communication (OECD 2010, Toner 2011). The challenge for education is to develop these different skills simultaneously (Avvisati et al. 2013), while highlighting the significance of these educational and scientific spheres for innovation and production.

It is therefore useful to examine the educational data, particularly with reference to STEM. Figure 5.9 presents comparative data on tertiary education graduates in the fields of Science, Mathematics, Computing, Engineering, Manufacturing and Construction in EU member states; the Eurostat taxonomy is used. Due to the growing numbers of new B.Sc. holders, Greece ranks sixth in terms of graduates in these specific sectors per 1000 individuals of the population aged 20–29 (12.4 individuals, compared to an EU27 average of 9.4). However, Greece ranks only 20th in terms of new Master's degrees holders in these scientific areas, a score which

Figure 5.8
Tertiary education graduates (ISCED8) in EU member states, per 1000 of the population aged 20–29, 2018

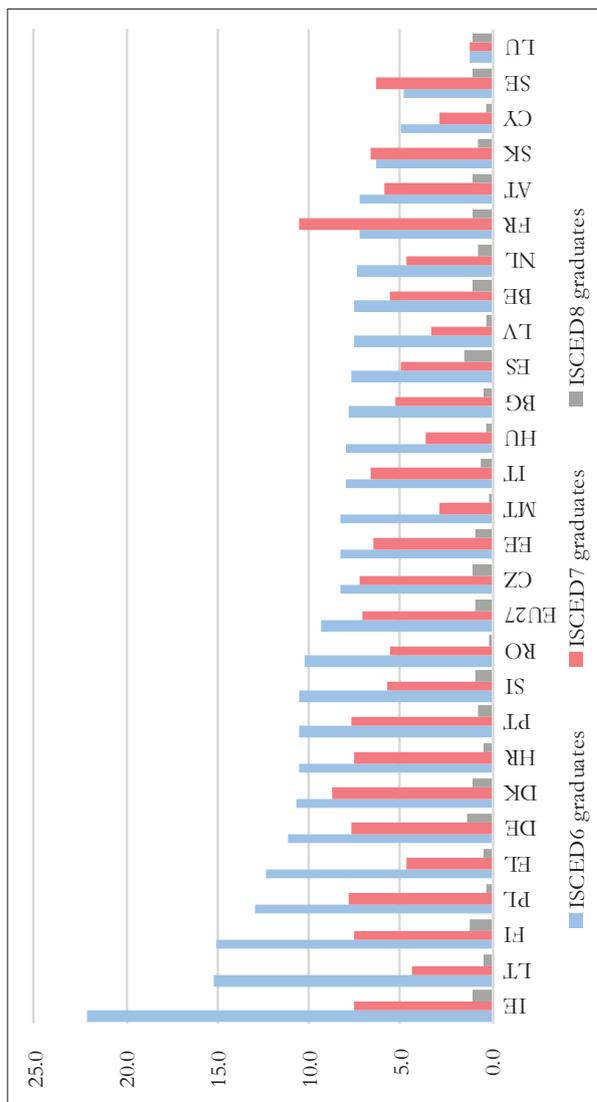


Source: Eurostat, Education Statistics.

most likely that relates to the factors laid out above. It should be noted that the fact that many young Greeks obtain their post-graduate degrees abroad does not necessarily affect the Greek productive system and its innovative capacity, given that many Greek scientists return to Greece to work after graduation, and do not stay abroad.

There is a balance that needs to be assessed in this respect relating to the gains an economy may enjoy as a result of brain circulation versus the potential losses as a result of brain drain (Labrianidis and Pratsinakis 2014, Triandafyllidou and Marouf 2017, Labrianidis 2017). In the Greek case, there has been a definite trend towards the latter scenario because of the economic crisis of the 2010s, while the impact of the Covid-19 crisis and its potential effect on the repatriation of scientists remains to be seen in the near future. In terms of new Ph.D. holders, Greece ranks 20th among the EU27 member states. This rather low ranking for Greece may relate not only to the rather large proportion of post-graduate students (ISCED7 and 8) who live and study abroad, but also to the productive structure in Greece, which is still directed towards more traditional productive sectors (Vaitsos and Missos 2018, INE GSEE 2015) and does not rely on technology-intensive goods and services (of middle-to-high and high technology). Such an explanation seems to be corroborated by the fact that Greek Ph.D. holders are mostly employed in the higher education sector—as teaching personnel or research fellows—and less in the business sector (private or public).

Figure 5.9
Tertiary education graduates in science, mathematics, computing, engineering, manufacturing and construction, per 1000 of the population aged 20–29, 2018



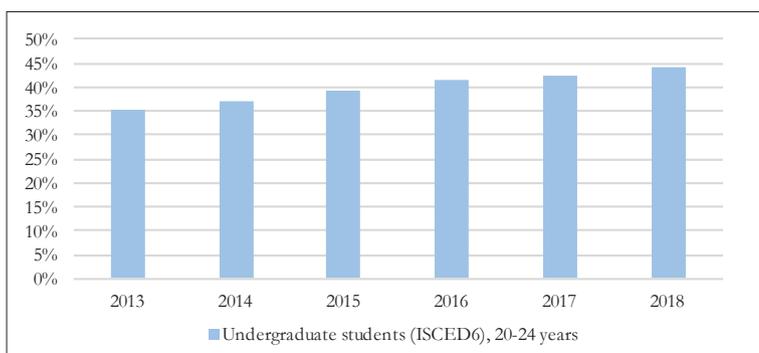
Source: Eurostat, Education Statistics.

5.1.4 Students in the Greek higher education system

When enrolled students –rather than graduates– are examined, the available data show that a substantially higher share of the 20–24 age group (around 44 per cent) are enrolled in undergraduate studies (ISCED6) in Greece (Figure 5.10). The share of enrolled students in this age bracket has increased substantially in recent years, a tendency that reflects broader structural trends towards increased levels of educational attainment.

Figure 5.10

Undergraduate students (ISCED6) as a percentage of the 20–24 age group in Greece, 2013–2018

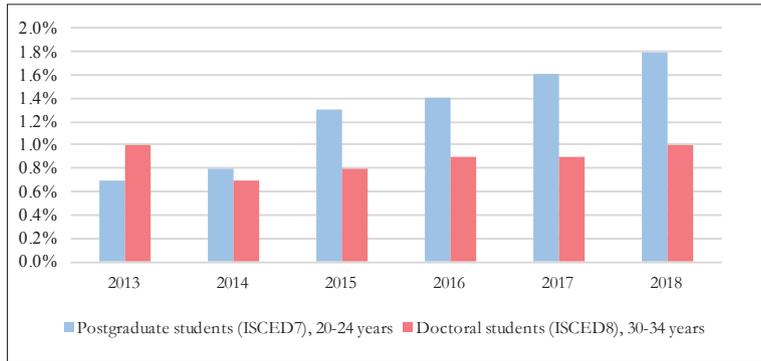


Source: Eurostat, Education Statistics.

Available data on enrolled postgraduate students aged 20–24, and on Ph.D. candidates aged 30–34 range around 2% and 1% of the total population in these age groups, respectively (Figure 5.11). Although the share of ISCED 8 students is low, this phenomenon is also encountered in other countries for this specific academic population.

Figure 5.11

Students in postgraduate and doctoral studies (ISCED7, ISCED8) as a percentage of the 20–24 and 30–34 age groups in Greece, 2013–2018



Source: Eurostat, Education Statistics.

The growing numbers of young Greeks in tertiary education, at least at the undergraduate level, is shown in Figure 5.12, as Greece has the largest proportion of enrolled undergraduate students in the 20–24 age group in the EU (44 per cent), which is double the EU average. This is an interesting finding, especially when compared to the data on graduates presented in Figure 5.7, where Greece ranks 9th. This implies that there is a gap between the population that is enrolled in tertiary education and those that manage to obtain an undergraduate degree. This interpretation is supported by the high number of students who seem to remain in tertiary education for many years,²⁰ most of whom are unlikely

²⁰ For many decades, there was no upper limit to the number of years an individual could study for an undergraduate degree in Greece. The result of this is that the number of students who enrol to study on 8- semesters programmes and obtain their degree after 4 years is half the total number of students enrolled in HEIs for undergraduate studies. Indicatively, according to data from the Hellenic Statistical Authority, the total number of students enrolled for the 2018-19 academic year was 489,959; of these, 252,718 had

to complete their studies. On the other hand, it also reflects the tendency recorded in recent years for more young people to enrol in higher education (Figure 5.10).

When students enrolled in doctoral-level studies in the EU are examined, the corresponding shares of the 30-34 age group are rather low, ranging from 0% to 1.5% (Figure 5.13).

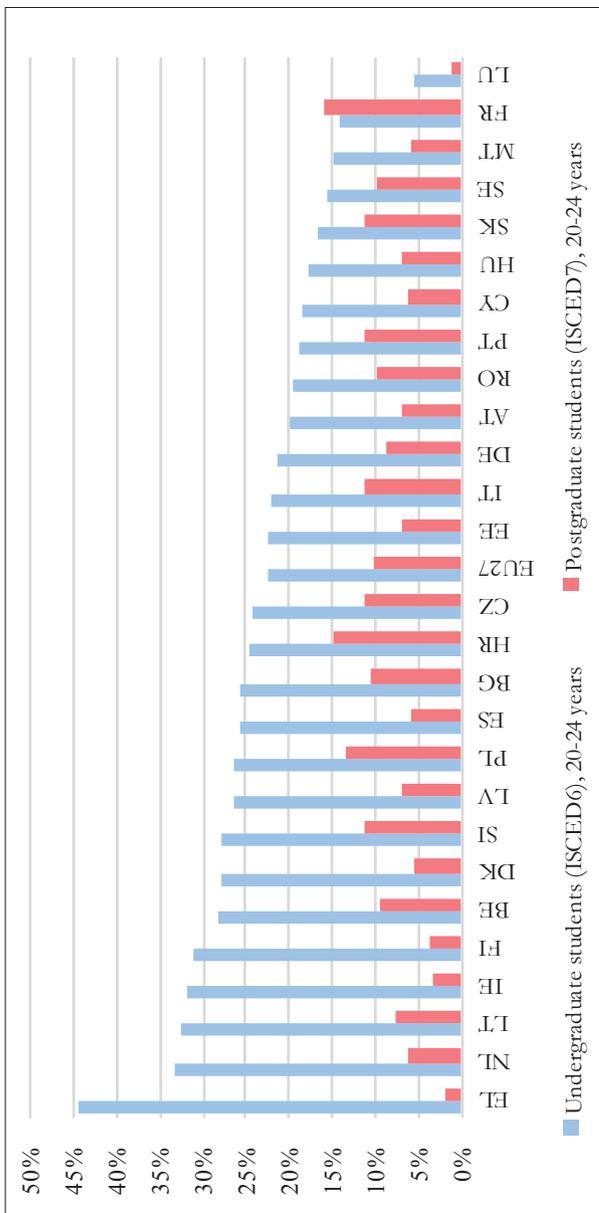
However, Greece is still 4th in this ranking, a fact which implies that –in comparative terms– a significant proportion of scientists in Greece elect to continue their studies at the highest level but do so at an older age. On the other hand, this trend, which is combined with an increase in the absolute numbers of new Ph.D. holders and Ph.D. candidates since 2017, may relate to public policy measures introduced by the Greek state, and more particularly to increased funding for doctoral studies and ISCED8 students.

5.2 Labour status of tertiary education graduates

This section presents the labour status of tertiary education graduates, a critical indicator, given that Greece has recently experienced a deep, decade-long economic crisis. As shown in previous chapters of this study, youth unemployment has emerged as a major social problem; in this context, higher education, and especially postgraduate studies (both ISCED7 and ISCED8), seem to be regarded as a valuable stepping-stone to finding a (better) job. According to the Hellenic Statistical Authority (ELSTAT), the number of Master's degree holders more than doubled in recent years in the Greek labour market, rising from 75,000 in 2007 to 160,000 in 2016. This increase was temporarily interrupted during the two-year period 2010–2011, which marks the beginning of the crisis in Greece, but resumed its upwards course in 2012.

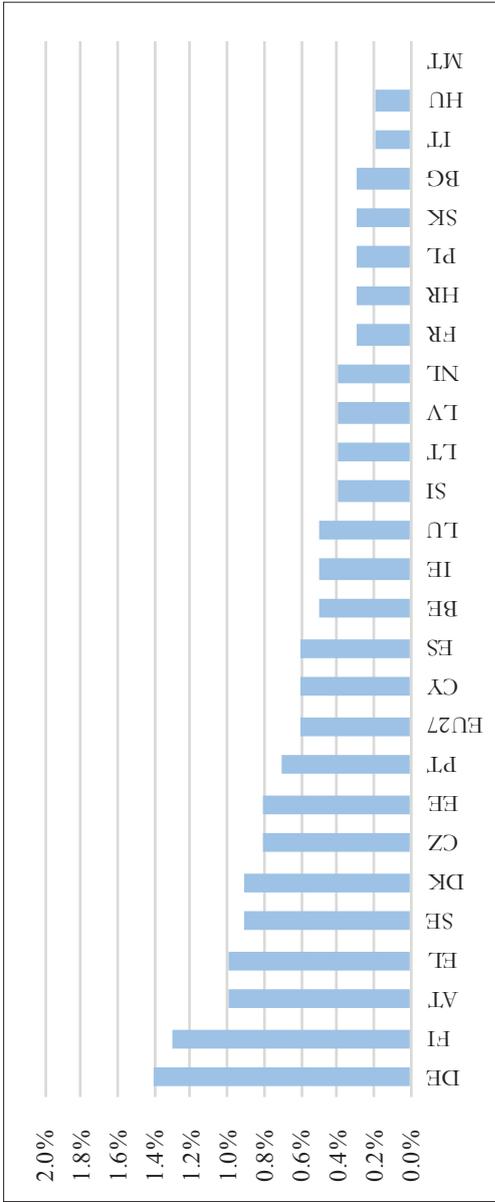
already exceeded the normal duration of their studies. In such cases, the students either complete their studies later, or do not obtain a B.Sc. degree at all.

Figure 5.12
 Students in undergraduate and postgraduate studies (ISCED6, ISCED7) as a percentage of the 20–24 age group in EU member states, 2019



Source: Eurostat

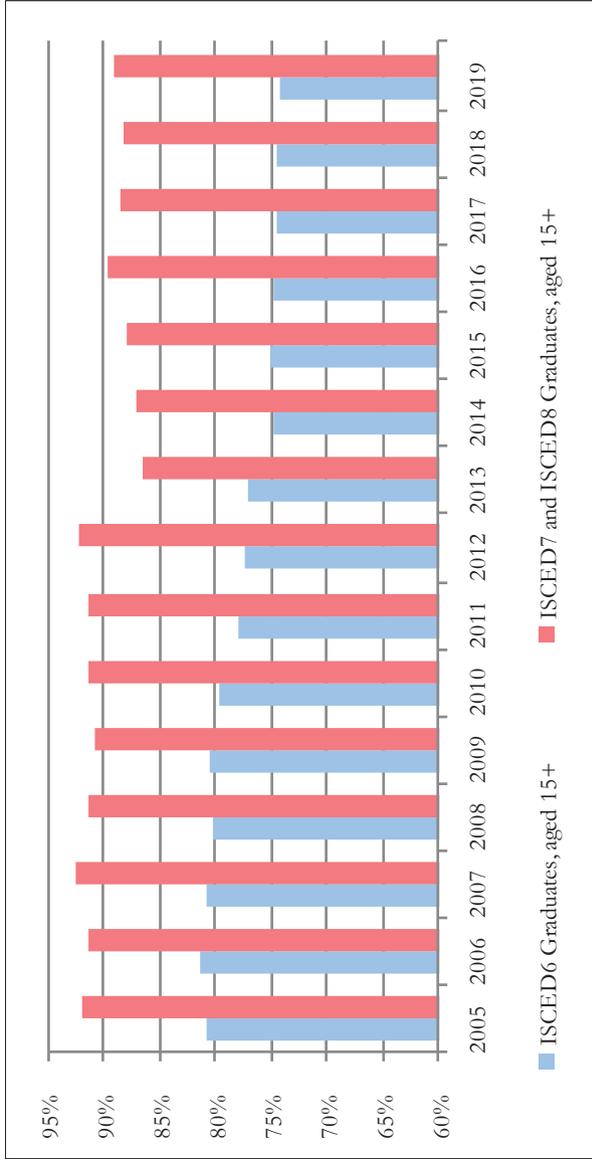
Figure 5.13
Students in doctoral studies (ISCED8) as a percentage of the 30–34 age group in the EU member states, 2019



Source: Eurostat

A large majority of graduates from all levels of higher education participate in the workforce, with participation rates higher for Master's and Ph.D. holders (Figure 5.14). It seems that the economic crisis of the 2010s did not significantly affect this indicator, as it did the employment and unemployment rates.

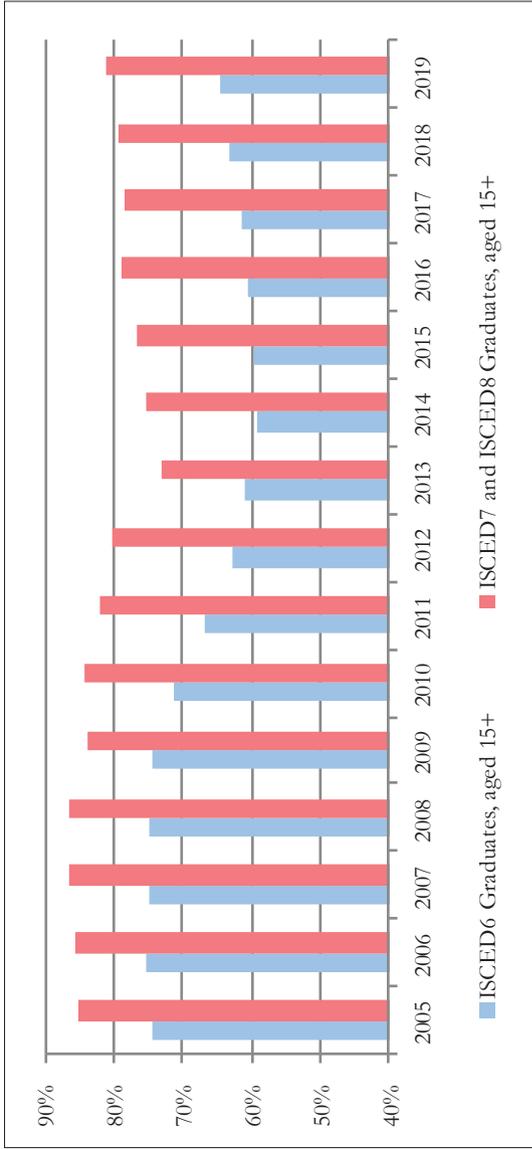
Figure 5.14
 Rates of participation in the workforce of different categories of tertiary education graduates, Greece, 2005–2019



Source: ELSTAT, Labour Force Survey. Author's calculations.

Figure 5.15 presents data on employment rates in Greece for different categories of tertiary education graduates. The employment rates for ISCED6 graduates declined from 74 per cent in 2005 to 60 per cent in 2014, before reaching 65 per cent in 2019. The employment rates for Master's and Ph.D. holders remained higher, although they did fall, from 86 per cent in 2005 to 81 per cent in 2019 (having fallen to 73 per cent in 2013).

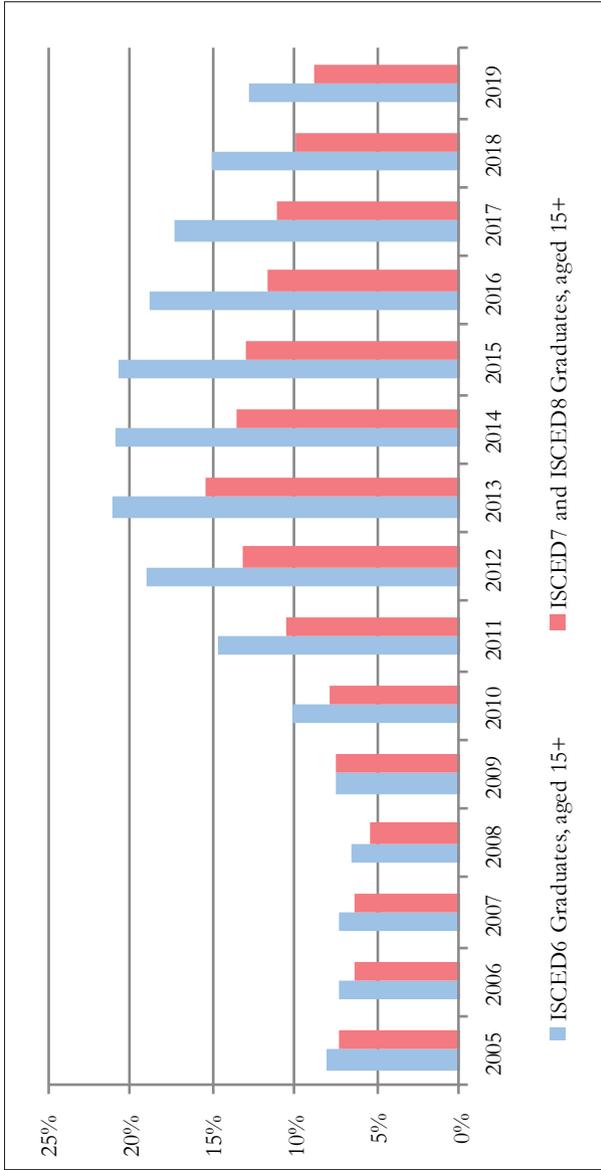
Figure 5.15
Employment rates of different categories of tertiary education graduates, Greece, 2005–2019



Source: ELSTAT, Labour Force Survey. Author's calculations.

The most significant differences between categories of tertiary education graduates appear in terms of unemployment rates. In 2019, the unemployment rate for ISCED6 graduates was 13 per cent, compared to 9 per cent for ISCED7 and ISCED8 graduates. The negative impact of the economic crisis is obvious, as the unemployment rate reached its highest level between 2013 and 2014 (21 per cent for ISCED6 graduates, 15 per cent for ISCED7 and ISCED8 graduates (Figure 5.16).

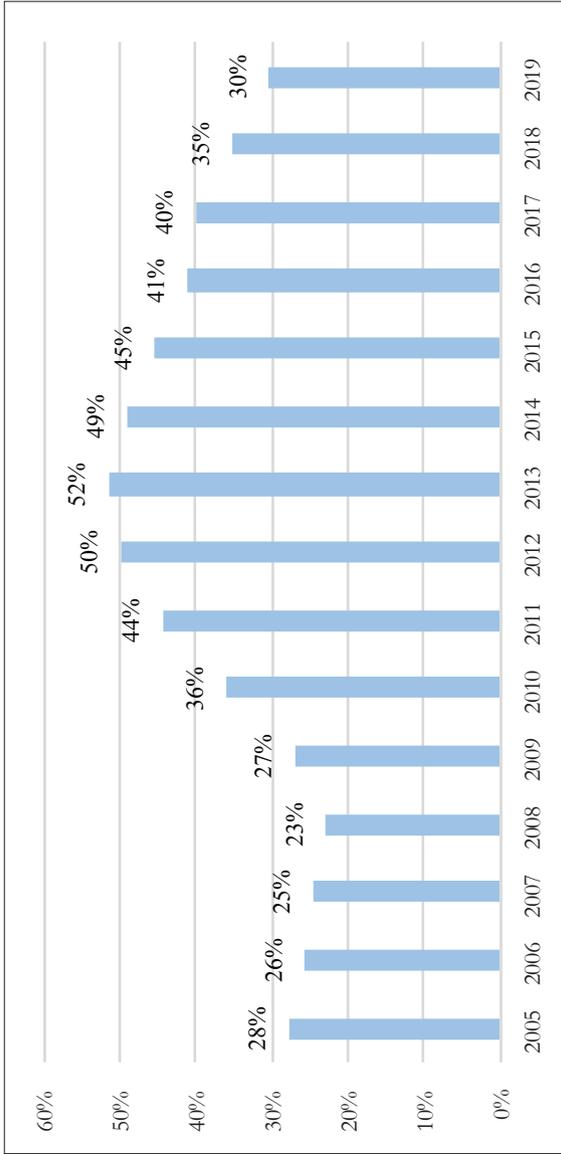
Figure 5.16
Unemployment rates among categories of tertiary education graduates, Greece, 2005–2019



Source: ELSTAT, Labour Force Survey. Author's calculations.

When examining trends in the unemployment rate for tertiary education graduates on a broader base, namely in aggregate for all levels of higher education (ISCED6–8) but with reference to a particular age group (20–34) and to a specific period since the completion of their highest level of education (1–3 years), the data reveal the extent of the impact of the crisis on youth unemployment: unemployment reached its highest rate, at 52 per cent, at the peak of crisis in 2013; it declined to 30 per cent in 2019, reaching the levels of the mid-2000s (Figure 5.17).

Figure 5.17
 Unemployment rates of ISCED6-8 graduates aged 20-34, 1-3 years since the completion of their highest level of education, Greece, 2005-2019



Source: Eurostat, National Accounts Data.

5.3 Human capital in the Research, Technological Development, and Innovation (RTDI) system

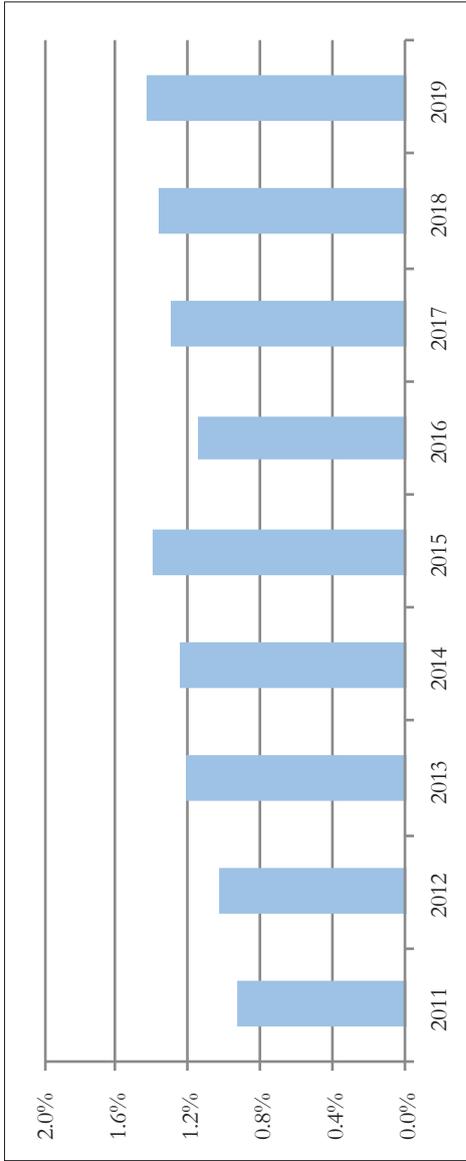
5.3.1 Mapping Research and Development (R&D) personnel in Greece: Participation of young scientists

R&D personnel does not only include researchers who are employed and active in research activities; it also includes other personnel who supports R&D carried out in the business sector, higher education institutes, public research centres, other public entities—including ministries, and private non-profit organisations. Data on the participation of R&D personnel in total employment in Greece show that this ranged between 0.9 per cent and 1.4 per cent in the period 2011–2019 (Figure 5.18).²¹ Interestingly enough, the participation of R&D personnel in total employment increased steadily during the Greek crisis. This trend can be attributed to an increase in R&D expenditure related to an increase in business sector R&D investment, as well as to the significant increase of R&D funding within the National Strategic Reference Framework (NSRF), namely funding flows to Greece from the European Structural and Investment Funds (ESIF), within the framework of the EU’s cohesion policy.

Compared to other EU member states’ performance, we see that Greece’s percentage of 1.43 per cent is below but close to the EU average (1.51 per cent), placing Greece in the 15th position, behind member states that have well-established national research and innovation systems (Figure 5.19).

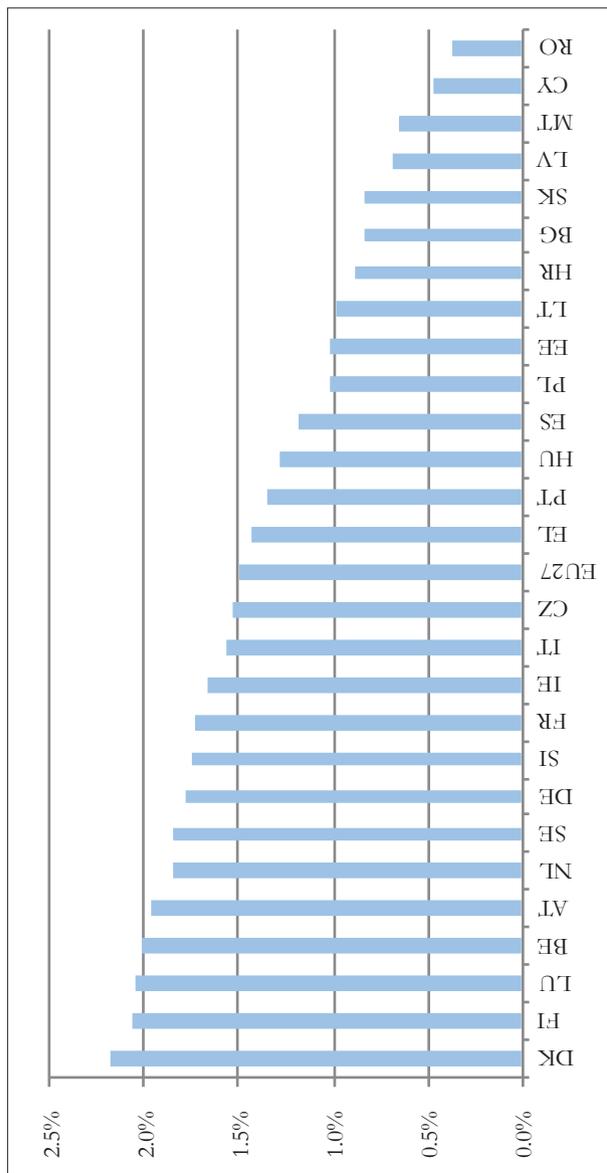
²¹ During the 2000s, there was a significant gap in the measuring of R&D activity in Greece; consequently, national statistical data on R&D expenditure and R&D personnel are only available from 2011 onwards.

Figure 5.18
 Total R&D personnel as a percentage of total employment, Greece, 2011–2019, numerator in full-time equivalent (FTE)



Source: Eurostat, National Survey on R&D.

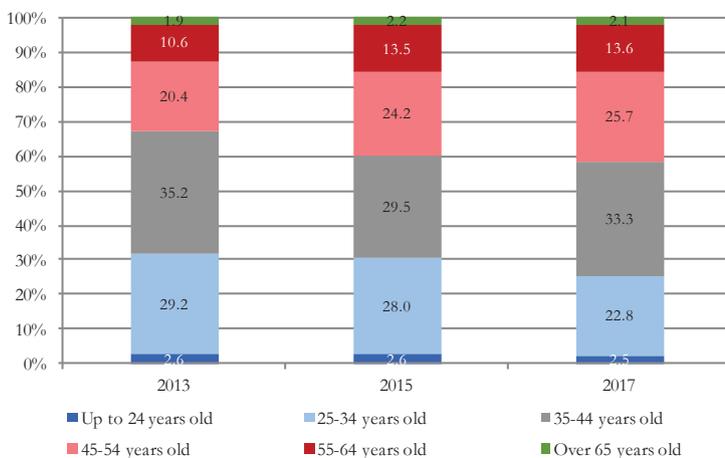
Figure 5.19
Total R&D personnel as a percentage of total employment, EU, 2019—numerator in full-time equivalent (FTE)



Source: Eurostat, National Survey on R&D.

Data may also refer specifically to researchers employed in Greece, and not to total R&D personnel. The following analysis is based on employment data for this particular category. As shown in Figure 5.20, which illustrates the distribution of researchers between different age groups, the age group with the highest share of researchers in Greece diachronically is the 35–44 group, followed by the 25–34 and 45–54 age groups. Taking into account the full distribution, the overall picture that emerges is that research activities are taken up at an older age in Greece, which to some degree relates to both the longer duration of studies in Greece and to the pursuit of postgraduate studies at an older age examined earlier in this chapter.

Figure 5.20
Researchers by age in Greece



Source: National Documentation Centre (EKT), National Survey on R&D.
Author's calculations.

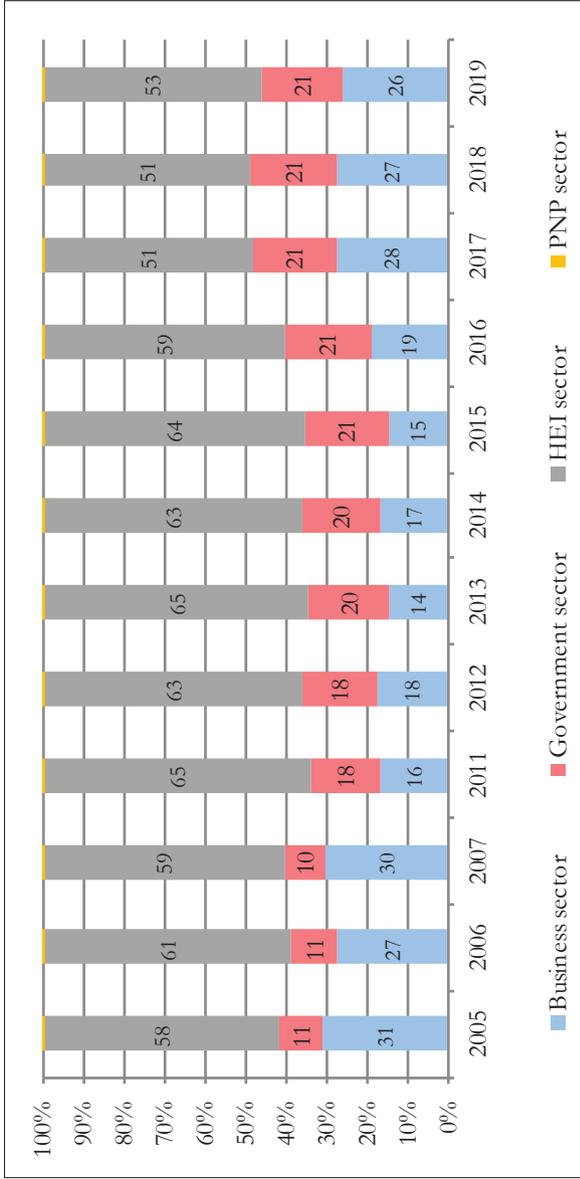
The R&D system can also be presented in terms of the distribution of R&D personnel among different categories of sectors:

the business sector (private and public), the government sector (including public research centres), higher education, and private non-profit organisations.

Figure 5.21 shows that the higher education sector is consistently the most important employer of researchers in Greece, since it employs most researchers, although its share has declined from its peak (65.1 per cent) in 2011 to 53.2 per cent in 2019. Since the share of the government sector is stable at around 20 per cent, and the private non-profit (PNP) sector accounted for only 1 per cent during this period, the business sector has increased its share by approximately 10 per cent.

Although the business sector has increased in relative importance in the Greek research system, in terms of R&D personnel employment but also -and most importantly- in R&D expenditure since 2015 (EKT 2020a), a consistently salient feature of the way R&D is structured in Greece is the dominant role the public sector continues to play. This relates both to government sector entities and enterprises and to public higher education institutes.

Figure 5.21
Distribution of researchers by sectors of employment, Greece, 2005–2019

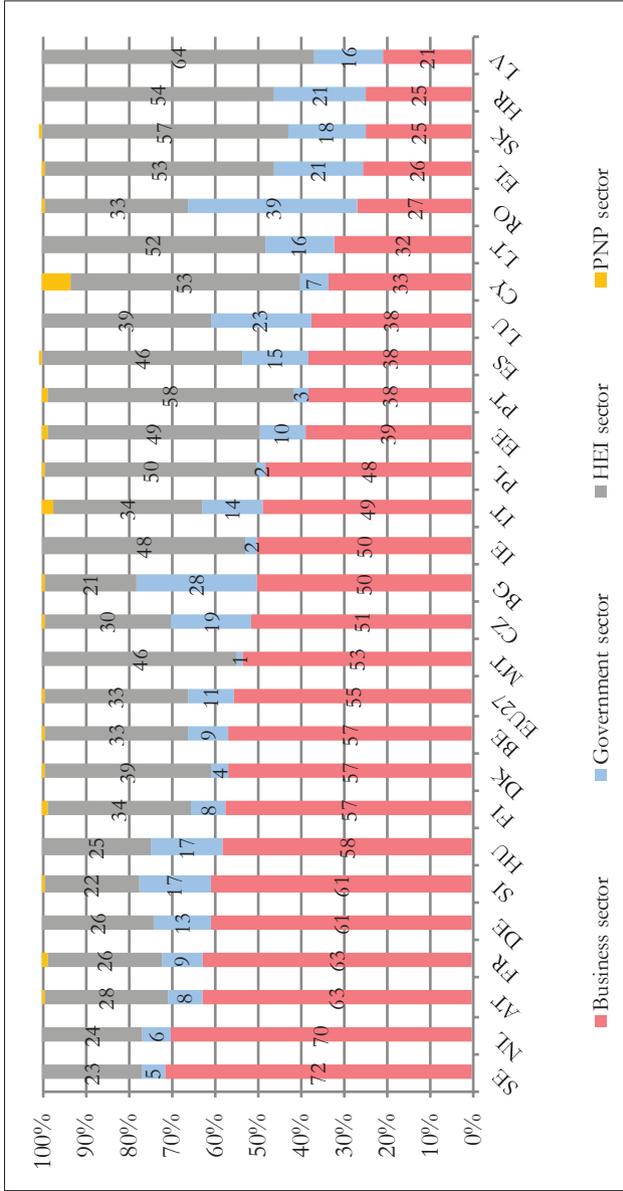


Source: Eurostat, National Survey on R&D.
Note: data missing for 2008, 2009, 2010

The particular make-up of the Greek R&D system is eloquently revealed by the cross-country comparison of researcher employment in different sectors (Figure 5.22). In terms of employment in the business sector, Greece ranks 24th, while the percentage of researchers employed in the HEIs is the 7th highest of all EU member states.

Next, we examine the distribution of researchers by field of specialization. Although data is available for less than half the EU member states, since no figures are available for the main producers of R&D in the EU, it is clear from the Frascati manual that the highest percentage of HEI researchers in Greece study the Arts and Humanities, with the 2nd highest share in the Medical and Health Sciences, and the 3rd in the Social Sciences. Although missing values for many EU member states do not allow for a comprehensive cross-country comparison, there are still some interesting findings in relation to the researchers' scientific specializations: the rather high concentration of academics in the Humanities is perhaps to be expected in Greece, given the country's history and therefore its comparative advantage in this particular scientific area, which creates a favourable environment for a high level of employment in this sector. Turning to the Medical and Health Sciences, the high number of researchers relates to the way in which studies and research are structured in this scientific area, as clinical research activities are a rather common practice, and many graduates in Medical Sciences continue their studies at doctoral level.

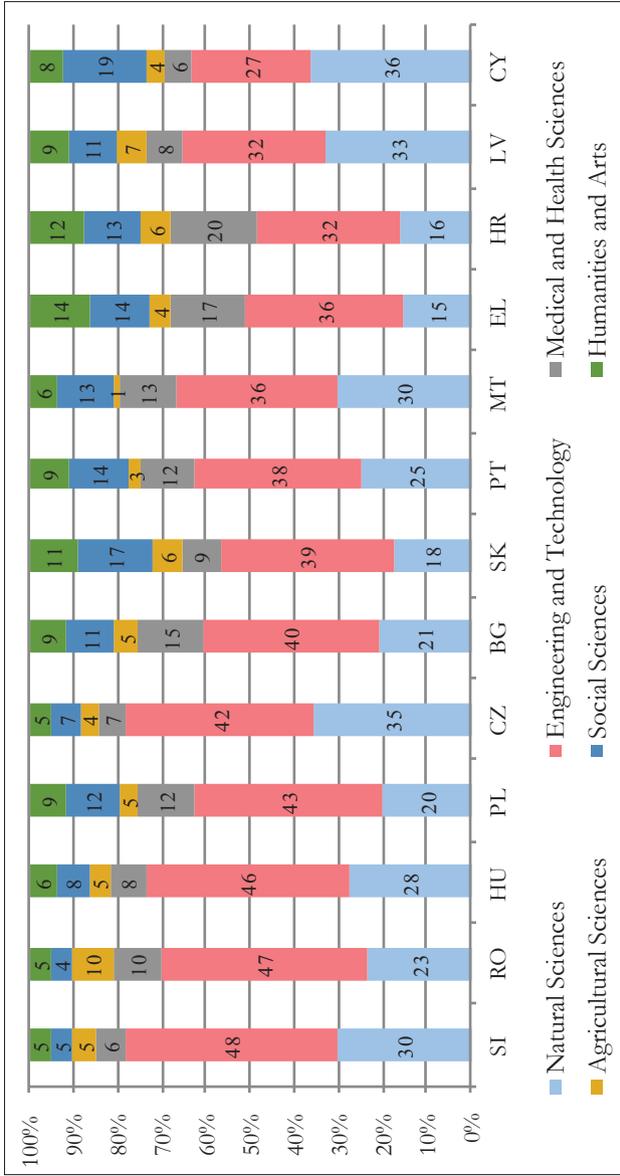
Figure 5.22
Distribution of researchers by sectors of employment, EU, 2019



Source: Eurostat, National Survey on R&D.

At the same time, while there is a plethora of students at the doctoral level in this field, Greece has a rather low concentration of researchers in “STEM-related” scientific areas, which are considered to be more relevant to innovation and therefore serve as a proxy for a country’s innovative potential and capacity. This low concentration is evident from the educational statistics relating to new entrants, enrolled students and graduates from tertiary education presented above.

Figure 5.23
Distribution of researchers by scientific discipline, EU, 2017



Source: Eurostat, National Survey on R&D.

5.4 The link between the RTDI system and the economy

5.4.1 Problems and barriers

According to national innovation statistics from the Community Innovation Surveys (CIS), Greek enterprises seem to be innovative, performing above the EU average (EKT 2021). This finding would imply that Greek enterprises have a promising potential and tend to be engaged in operational and product innovation. But is this actually the case? Ideally, the transition of the Greek economy from more traditional, low-productivity activities to activities with a medium to high technological intensity would lead to a virtuous cycle of increased productivity, a more dynamic introduction of technological innovation, higher capital intensity in production, as well as increased demand for skilled human resources. In this context, education and innovation capacity are critical elements which catalyse structural changes in the national production regime (Naude and Nagler 2015). In practice, however, despite the relatively high performance of Greek companies in terms of innovation, the sort of dynamism detailed above is not evident in the case of Greece.

In fact, if other data –in addition to CIS results– are considered, the picture is significantly different, revealing a downward trend in terms of competitiveness (Giannitsis et al. 2009) as well as major difficulties and obstacles facing companies when it comes to innovative activity (IOBE 2012). Research conducted by the Global Entrepreneurship Monitor, which includes both new business ventures and so-called established business schemes, presents a negative picture (Ioannidis et al. 2016), as do the European Innovation Scoreboard's composite indicators, which relate to the innovative capacity of each EU member state (European Commission 2020). Data on a specific kind of innovation outcome, namely patent applications made to the European Patent Office

(EPO), can be added to this picture, since this indicator may be used as a proxy for innovation (Dernis et al. 2015). According to Eurostat, Greek companies exhibit very low performance in patent applications; the poor results apply to the country as a whole, given that applications from universities, public bodies, etc. are also very few in number (EKT 2020b).

One interpretation of these contradictory results would highlight the fact that Greek enterprises perform well in innovative activities with a low technological intensity, like organizational and marketing innovation. At the same time, an examination of the expenditure made on innovative activities reveals that most Greek innovative companies invest their funds in machinery, equipment, etc. This implies that Greek companies are making efforts to modernize and upgrade their production. At the same time, however, it highlights the high dependence on imported production and technological equipment, as domestic industrial production doesn't have a comparative advantage in this sector (Chrysomallidis 2017).

Greek companies' demand for and supply of knowledge are also affected by several other structural features, primarily size: the vast majority of Greek enterprises are very small, while there are only a small number of large Greek companies. This limits the ability of Greek businesses to engage in technologically intensive research and innovation activities, which require considerable funds and economies of scale in production to be economically efficient. Moreover, industry specialization is also important, as specialization in fast-growing industries is a competitive advantage for an economy (Mitsos and Chrysomallidis, forthcoming). In the Greek case, manufacturing is characterized by a low technological intensity, while the employment's share in the "high technology knowledge services" subcategory is one of the lowest in the EU.

These features of the Greek productive structure serve as limitations both on competitiveness and on the employment of a specialized labour force highly skilled in research-related activities.

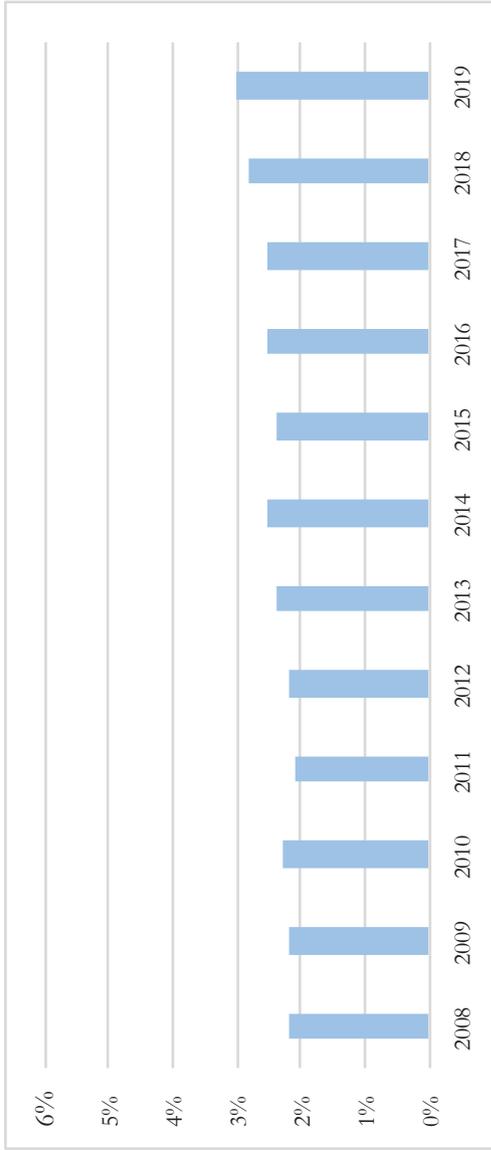
Figure 5.24 presents the share of high-tech sectors (in both goods and services) in total employment before, during and after the onset of the Greek financial crisis. The data reveal that the share of this category of sectors has remained very low, exhibiting only a minor upward trend, from 2.2 per cent in 2008 to 3.0 per cent in 2019.

The rather traditional character of production in Greece becomes clear when data on employment in high-technology sectors (high-technology manufacturing and knowledge-intensive high-technology services) are presented in comparative terms. Greece ranks 25th (Figure 5.25), although, as we saw above, its performance (3.0 per cent) in 2019 was the best since 2008.

Summing up, the current national productive specialization and structure do not favour the transition to research-oriented and higher technological intensity activities. Nevertheless, high-quality research is produced in Greece, where specific advantages and areas of excellence seem to exist. Greece's human capital is one of its strong "assets" and has established a competitive edge in scientific activity. This is evidenced by the volume of its research output; Greece ranks 9th in the EU in terms of the number of publications per million of R&D expenditure (Sachini et al. 2020). Another, more qualitative indicator of the visibility and impact of Greek researchers in academia and the global research community, is the number of cited publications and the percentage these represent of the total publication output. The percentage of Greek cited publications has presented a steady upward trend between 2004 and 2018, reaching 75.6 per cent in 2018. This is above the EU (74.1 per cent) and OECD (73.4 per cent) averages (Sachini et al. 2020).

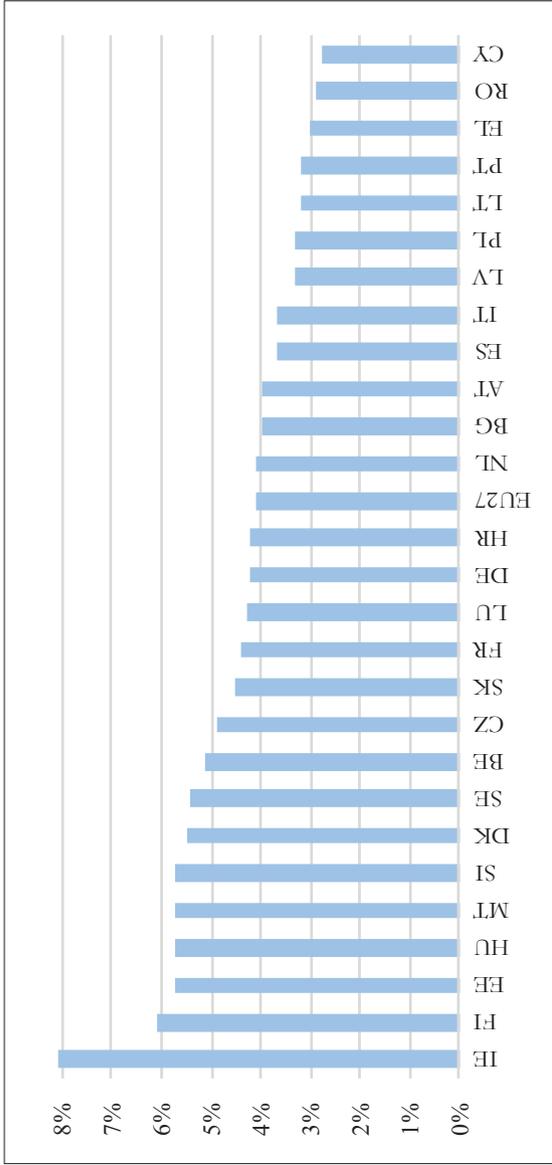
In addition, European competitive funding in the form of research grants within the European Union Framework Programmes provides further evidence of Greek researchers' international "competitiveness". Greek researchers have shown themselves to be very capable when it comes to attracting European funds, which they have done in consecutive Framework Programmes (Figure 5.26).

Figure 5.24
 Employment in high-technology sectors (high-technology manufacturing and knowledge-intensive high-technology services—NACE Rev. 2) as a percentage of total employment, Greece, 2008-2019



Source: Eurostat, National Survey on R&D.

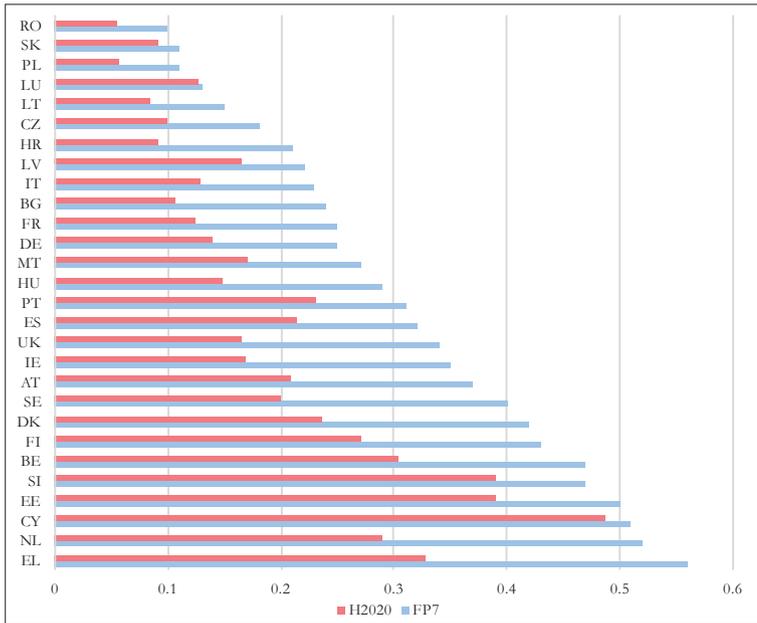
Figure 5.25
 Employment in high-technology sectors (high-technology manufacturing and knowledge-intensive high-technology services—NACE Rev. 2), as a percentage of total employment, EU, 2019



Source: Eurostat, National Survey on R&D.

Figure 5.26

EU research funding (FP7 and Horizon 2020), participation per member state (as a percentage of GDP)



Source: Sachini et al. (2017)

This performance serves as an indication of the outward-looking and network-centric approach of the Greek scientific base, as well as of its research excellence, given that participation in such projects is granted on a highly competitive basis (Sachini et al. 2017).

This analysis reveals one of the main weaknesses of the Greek research system: although it produces high-quality research, it fails to exploit and transfer this output into the real economy. This also demonstrates the considerable potential that exists for shifting the Greek production model in a more knowledge-intensive direction, if the academic and business worlds can be brought closer together (Caloghirou et al. 2021).

A way forward in this direction could be the collaboration of postgraduate and doctoral students with the business sector. Although such synergies are still rather limited, they are broadly acknowledged as positive by all the parties involved—namely the HEIs, the students, and the enterprises (Chrysomallidis, forthcoming). Students, in particular, gain practical experience and may secure access to the labour market. As a result, they regard this kind of synergy as an important part of their education, combining it with professional networking in their future work environment. Progress in this area depends primarily on the traditions and activities of the HEIs and businesses, and ultimately on their attitude towards HEIs-business cooperation. Administrative and bureaucratic burdens on the HEIs' side, as well as a lack of commitment on the business side hinder synergies; as a result, there are very few examples of successful cooperation, and these involve only a limited number of HEIs and firms. As noted in numerous external evaluation reports submitted to the Hellenic Quality Assurance and Accreditation Agency (HQA) within the framework of HEIs' institutional evaluation processes, this picture has not changed, despite indications that the financial crisis and the deteriorating funding conditions for HEIs have made them more open and receptive to partnerships with the business world (EKT 2016). Nevertheless, this gap implies that there is unexploited potential for further synergies and interaction between HEIs and enterprises in the post-crisis era within the Greek tertiary education system.

5.4.2 Skills mismatch

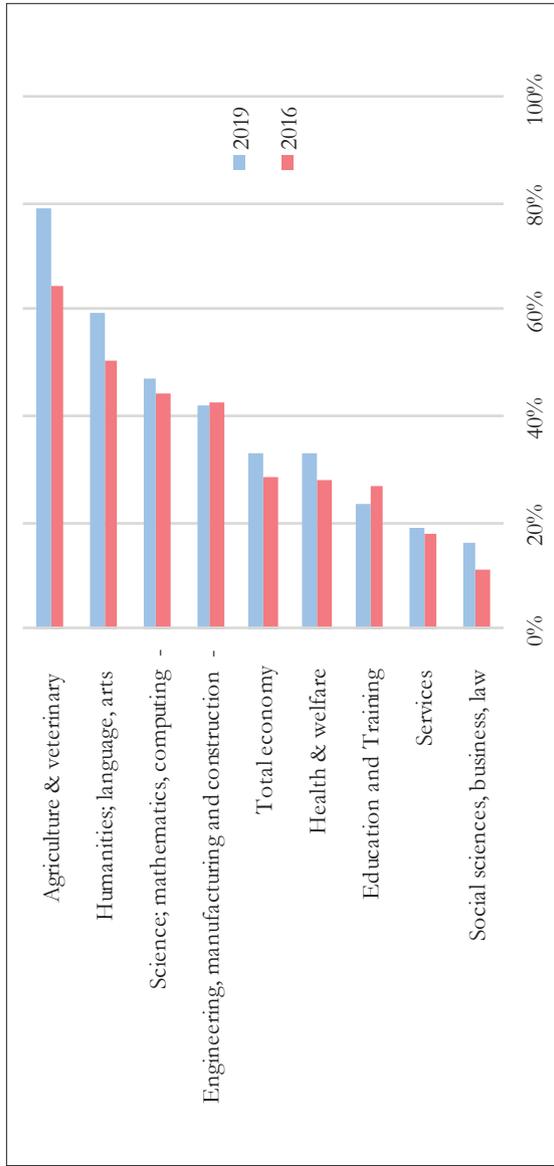
The previous analysis relates to another feature of the Greek labour market: the so-called “skills mismatch”. Since the vertical dimension of skills mismatch has been analysed elsewhere in this study, we focus here on the horizontal aspect. In more detail, horizontal skills mismatch “*is defined as the discrepancy between a*

person's current occupation and their field of education related to the highest level of education attained. After matching fields of education according to the ISCED classification of fields of education and training to occupations at ISCO 2008 3-digit level, persons working outside their field of education are considered as individuals with horizontal skills mismatch. The criterion used for the matching of occupational ISCO codes with the fields of education is the assumed congruence of skills acquired through education and the skills needed for the job. Skills mismatch by field of education may be relevant for labour market analyses since 'non-matched' persons (i) might face frustration because of the lack of a direct return to the effort dedicated to study and (ii) may generate economic losses for businesses as a result of lower efficiency and/or the additional costs of acquiring specific skills on the job" (Eurostat n.d.: 3).

The highest horizontal skills mismatch rates are found, in both 2016 and in 2019, in the fields of Agriculture & Veterinary; the Humanities, Language & Arts; Science, Mathematics & Computing; and Engineering, Manufacturing & Construction (Figure 5.27). The extent of the horizontal skills mismatch in these sectors is above the national average (33 per cent in 2016 and 29 per cent in 2019). On the contrary, the lowest rates of horizontal skills mismatch are to be found in Health & Welfare; Education & Training; Services; and Social Sciences, Business & Law.

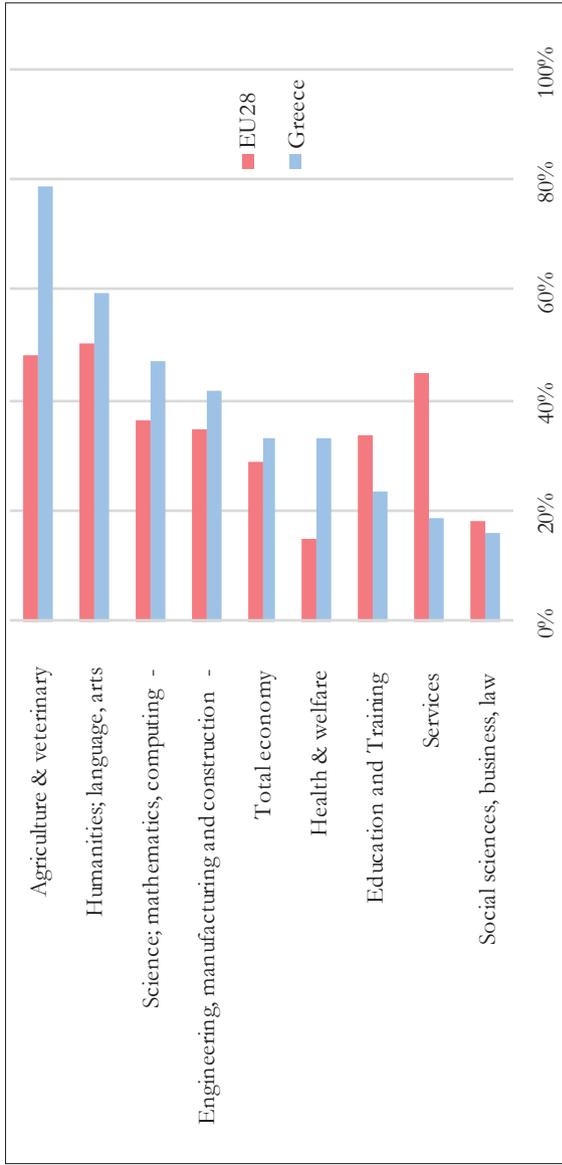
Finally, Figure 5.28 compares Greek performance to the EU-28 average in 2019. Greek horizontal skills mismatch rates are higher than the EU average in Agriculture & Veterinary; Humanities; Language & Arts; Science, Mathematics & Computing; Engineering, Manufacturing & Construction; and Health & Welfare.

Figure 5.27
Horizontal skills mismatch rates by fields of education, Greece, 2016, 2019



Source: Eurostat, Labour Force Survey.

Figure 5.28
Horizontal skills mismatch rates by fields of education, Greece-EU average, 2019



Source: Eurostat, Labour Force Survey.

The difference in both Agriculture & Veterinary and Health & Welfare is so big that the Greek performance is double the EU average. On the other hand, Greek horizontal skills mismatch rates are lower than the EU average in the following fields of education: Education & Training; Services; and Social Sciences, Business & Law. Overall, the average Greek performance (33 per cent) is worse but close to the EU28 average (29 per cent) and EU27 average (28 per cent).

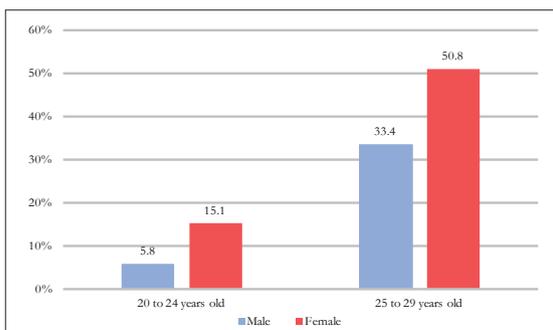
5.5 Women in higher education, and the national RTDI system

5.5.1 Participation of young women in higher education

This section examines young women's participation in higher education in Greece, both through time and in comparative terms. Figure 5.29 presents the share of men and women who have obtained a higher education degree (undergraduate, post-graduate or doctoral studies) in the age groups 20–24 and 25–29. In both age groups, the share of women is higher than that of men. The substantial difference recorded between the genders is not recent and was observed during the entire 2005–2019 period.

Figure 5.29

Share of population having complete ISCED6–8 studies by age and sex, in Greece, 2019



Source: Eurostat, National Accounts Data.

However, it should be mentioned that this gap between males and females is not a Greek peculiarity, as it is observed in all EU countries, albeit to different degrees.

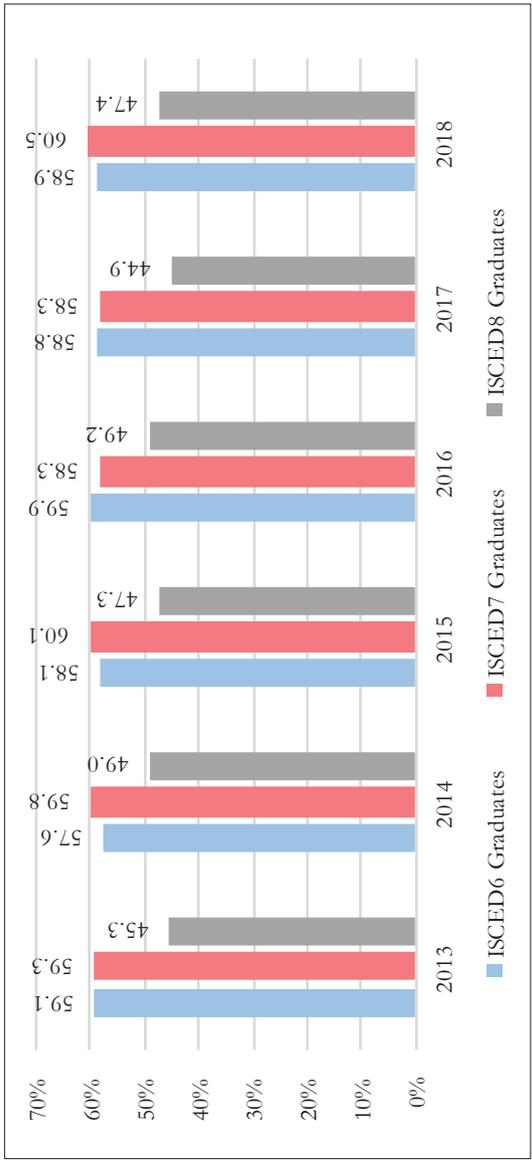
5.5.2 Tertiary education female graduates

Figure 5.30 presents the share of women among tertiary education graduates, at the undergraduate, post-graduate and doctoral level. The majority of graduates are women for the ISCED 6 and ISCED7 levels (their share ranges between 58 and 60 per cent between 2013 and 2018), but this is not the case for new Ph.D. holders, as men traditionally outnumber women (here, the women's share ranges between 45 and 49 per cent for the same period).

In comparative terms, Greece ranks 16th for the percentage of women among ISCED6 graduates, and the figure was equal to the EU28 average in 2018 (Greece: 58.9 per cent, EU28: 58.9 per cent, EU27: 59.2 per cent). Greece ranks 12th when we look at the percentage of ISCED7 graduates who are women, with a percentage above the EU average (Greece: 60.5 per cent, EU28: 58.2 per cent, EU27: 57.9 per cent); however, the country falls to 20th position in the case of ISCED8 graduates, with a percentage close to the EU28 average (Greece: 47.4 per cent, EU28: 47.8 per cent, EU27: 48.1 per cent).

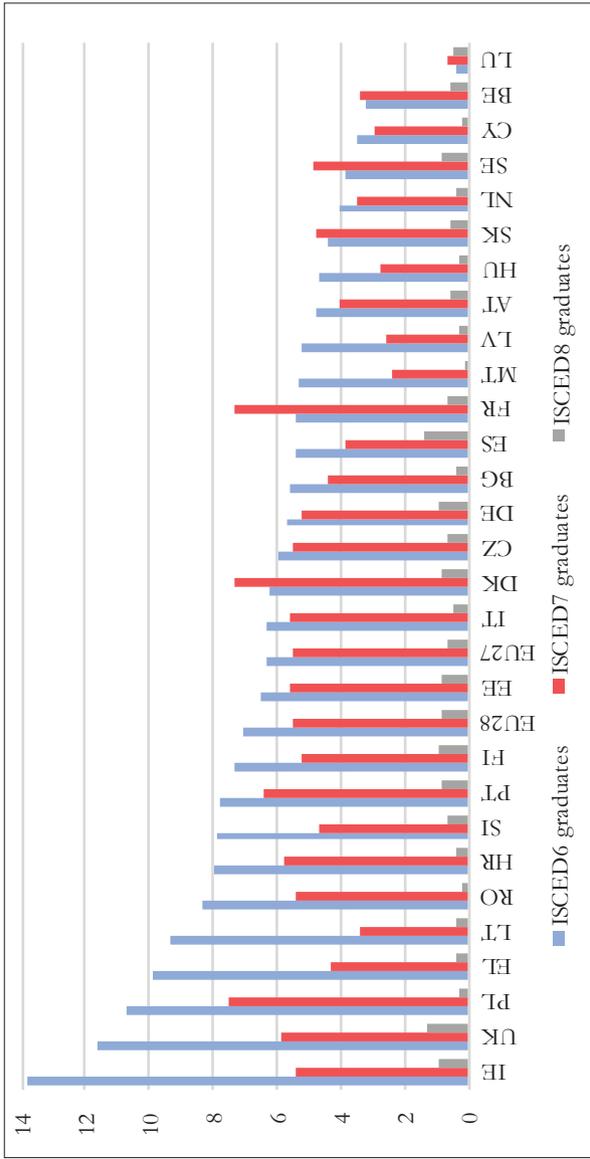
Figure 5.31 presents data on women graduates in tertiary education (ISCED6, ISCED 7 and ISCED 8 level), specifically in the sectors of Science, Mathematics, Computing, Engineering, Manufacturing and Construction, in line with the data presented in section 5.1.3.

Figure 5.30
 Percentage of tertiary education graduates who are women, Greece



Source: Eurostat, education Statistics.

Figure 5.31
 Women tertiary education graduates in Science, Mathematics, Computing, Engineering, Manufacturing and Construction, per 1000 of population aged 20–29, 2018

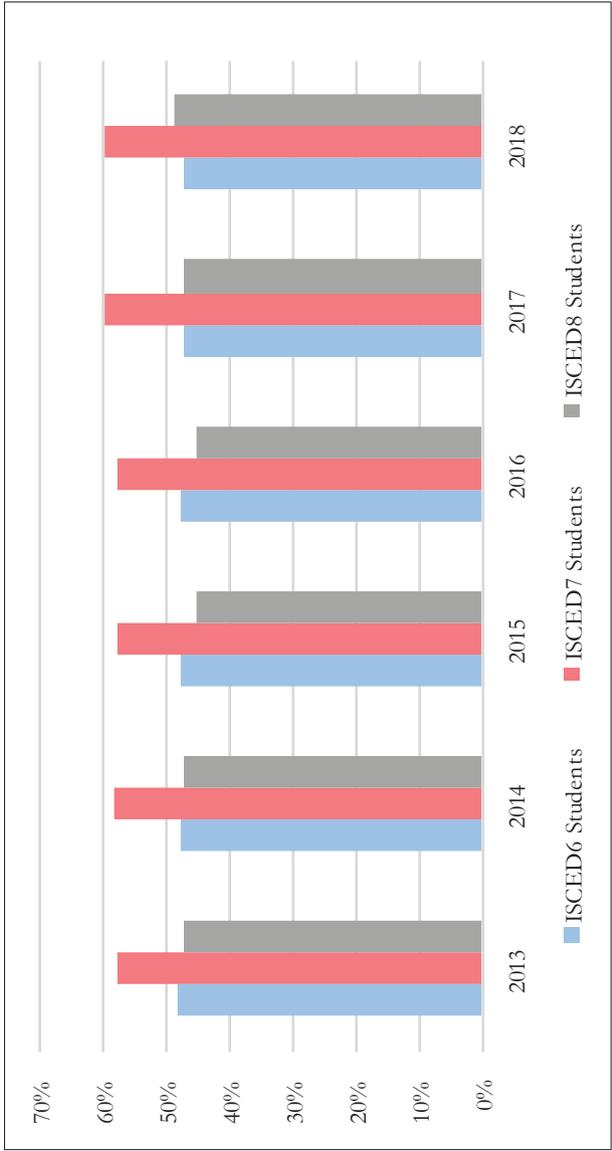


Source: Eurostat, Education Statistics.

5.5.3 Female students in tertiary education

Figure 5.32 presents the share of female students enrolled in tertiary education at the undergraduate, post-graduate and doctoral level. As in the case of graduates, women comprise most students enrolled at the ISCED7 level and a minority at the ISCED8 level. The situation is different when it comes to students enrolled at the ISCED6 level, as men are more numerous than women. This difference in the data between student enrolment and graduates is explained by the fact that a higher proportion of female than male students complete their studies.

Figure 5.32
Share of women among students enrolled in tertiary education, Greece, 2013–18



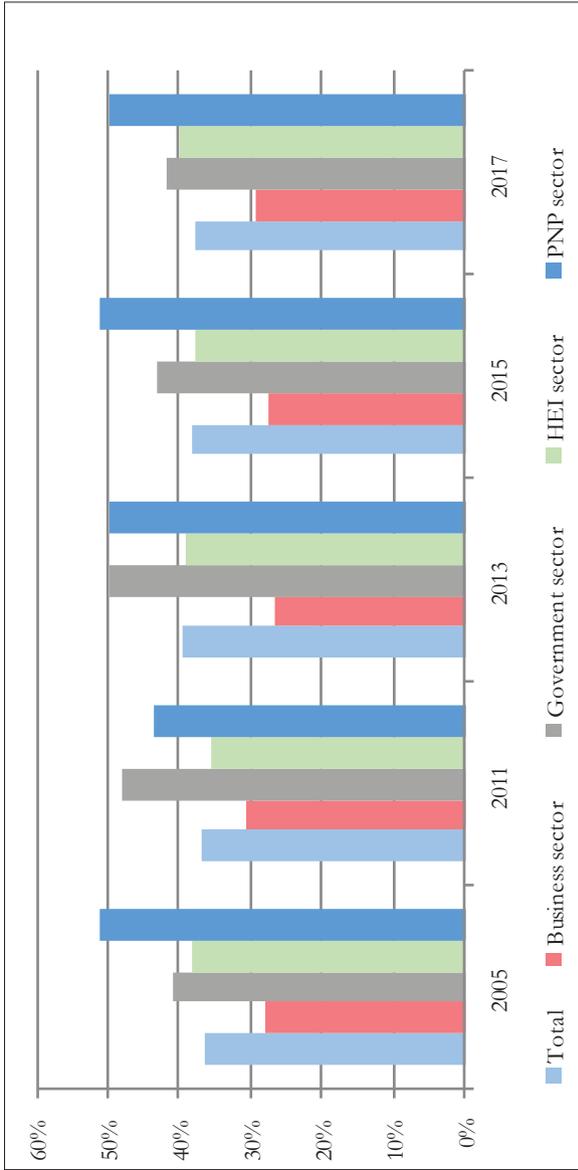
Source: Eurostat, education Statistics.

5.5.4 Women in the Greek research and innovation system

EU support for gender equality in research and innovation is reflected in several official European Commission texts, and particularly within the broader initiatives of the European Research Area (ERA). The European Commission and ERA encourage member states to enable women's participation in research and innovation activities by promoting relevant policy measures and by establishing a monitoring mechanism for all EU member states. This mechanism relies on data on gender issues being provided on a regular basis and on targets being set at both the EU and national levels (European Commission 2012, 2019c, 2019d). These indicators are included in the EU's "She Figures" statistics and publications. At the same time, data collection and analysis also seek to monitor and assess the implementation of relevant policies in a way that resembles the EU's "open method of co-ordination".

The participation of women in the Greek research and innovation system ranged between 36 and 39 per cent between 2005 and 2017. More specifically, it was in the vicinity of 30-40 per cent in every sector of research bar one during the same period: the private-non-profit (PNP) sector, where women typically make up half or more of the R&D personnel (Figure 5.33).

Figure 5.33
 Percentage of researchers who are female by sector, Greece



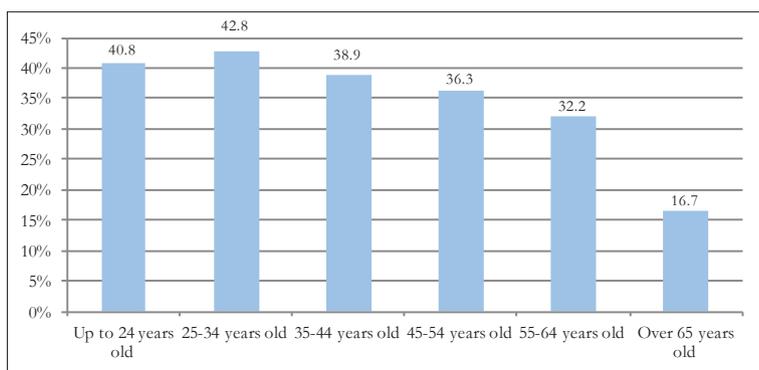
Source: Eurostat, National Survey on R&D.

Cross-country analysis for the same indicators reveals that Greece ranks 13th with regard to the share of women among R&D personnel, which is higher than the EU28 average; Latvia is the only EU member state in which women's share is above 50 per cent.

Turning to the share of women researchers in different age groups, it is clear that in researchers' early career stages, namely up to the age of 44, women account for about 40 per cent of researchers, but that this share declines steadily in older age groups, reaching 36 per cent in the 45–54 age group, 32 per cent in the 55–64 age group, and only 17 per cent in researchers over 65 (Figure 5.34).

Figure 5.34

Share of female researchers by age in Greece, 2017

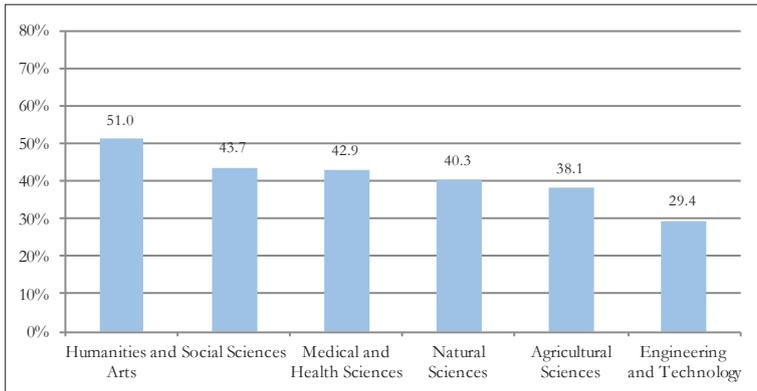


Source: EKT, National Survey on R&D.

Figure 5.35 presents the share of female researchers in all age groups in the six main fields of science defined by the OECD's Frascati manual. As expected, women constitute the majority of researchers in the Humanities and Arts, while they achieve a share higher than 40 per cent in Social Sciences, Medical & Health Sciences, and Natural Sciences. Women's share in the Greek research system is close to 40 per cent in Agricultural Sciences, but significantly lower, at 29 per cent, in Engineering and Technology.

Figure 5.35

Share of female researchers by field of science in Greece, 2017



Source: Eurostat, National Survey on R&D.

5.5.4 Problems and barriers for women in participating in tertiary education and research

The problems and barriers that women face in their career, such as the glass ceiling, are part of a broader conversation that is taking place globally around gender equality in participation in tertiary education and employment in research activities. In fact, the number of higher education students has increased significantly around the globe in recent decades because of a social trend which has seen universities open their doors to the general public and not only to elites (Taylor 2003). An increase in women's participation in higher education has been an important side-effect of this development; indeed, this phenomenon has been so intense that women now comprise most higher education students in almost all developed countries, as well as in many countries currently in transition (Leathwood and Read 2008). Women undertaking higher education studies constitute an increasingly larger group within the population than men. This is

clearly an important trend, and surveys have highlighted the effect this phenomenon has had on other social developments (Parvazian et al. 2017). Empirical research has focused on connecting women's participation in higher education with higher potential earnings and the participation of women in the labour market, with changes in fertility behaviour, as well as with shifts in individual beliefs and values (Ahituv and Lerman 2007; Gilbert 2014; Gottard et al. 2015; Moghadam 2015; Mok 2016).

Thus, today, there is no gap in women's participation in higher education in developed -and, in some cases, developing- countries (European Commission 2019b, OECD 2020). This development has been the result of, and has in turn influenced, the development of human rights, the democratization of societies, and the ongoing diffusion of ideas about gender equality across countries. This process is empowering women through changing values and attitudes relating to their role and aspirations in society, as the increased social mobility and higher incomes they seek to achieve require higher levels of schooling (UNESCO 2012).

Turning to the Greek case in particular, it is clear that the share of women attaining a tertiary education has increased in Greece over the last two decades, while the country has more than met its national EU 2020 target of 32 per cent of people aged 30–34 with tertiary education qualifications (the current rate is 44 per cent: 51 per cent for women and 38 per cent for men). However, the uneven concentration of women and men in different academic fields in tertiary education remains a challenge for Greece.²²

Overall, although indicators and statistics on women's access to and participation in higher education are encouraging, and gender inequality in higher education worldwide has declined in recent decades, women still encounter obstacles when competing for key

²² https://ec.europa.eu/greece/sites/default/files/gender_equality_index_2019_greece.pdf

academic positions and leadership roles in both higher education and in research. However, this is not only a Greek phenomenon but a world-wide phenomenon that affects most developed countries. The analysis of the gender gap in labour market outcomes should therefore be paid more attention. This discussion relates directly to two aspects of the glass ceiling: *first*, to professorships and tenured positions, which is to say the relatively low proportion of women among the teaching personnel in higher education,²³ and *second*, to women's participation in senior management positions in higher education (UNESCO 2021). In the broader area of science, combining both higher education and research, this is also known as the "scissors-shaped" trend, according to which women constitute the majority of university students and graduates, but they are subsequently overtaken by their male colleagues, until they become a minority in the highest ranks, in terms of senior academic and decision-making positions.

More specifically, in the research and innovation sector, just 30 per cent of the world's researchers at universities are women, with women being absent at the higher levels, which are normally required for a research career. In other words, the high proportion of women in tertiary education does not necessarily translate into a greater presence in research--this can be demonstrated in terms of research output, such as academic publications (UNESCO 2021). EU initiatives aim to address gender imbalances in, for instance, the composition of research teams and the participation of women in decision-making processes, as well as seeking to enhance gender-related dimensions in research projects in all scientific fields. Within this framework, the EU has highlighted--among other challenges addressed by the "Horizon 2020" Program--the need to increase women's participation in research, to improve

²³ In some cases, this is also combined with a salary gap between male and female professors.

their career potential, to achieve gender balance in recruitment and decision-making in relation to research activities, and to promote further scientific excellence while also taking gender equality into account. The EU Gender Equality Guidance for Horizon 2020 has laid down guidelines on how these objectives can be achieved.

Furthermore, gender equality is one of the main priorities of the European Research Area (ERA) that was created in May 2000 as part of the Lisbon Strategy, with strengthening women's position and role in research figuring among its main areas of intervention. Raising the prominence of the issue of gender equality in public discourse, and specifically in science, research and technology, is among the aims of the ERA; this relates *first* to enhancing scientific excellence through fully exploiting the “productive differences” between the sexes, and *secondly* avoiding unnecessary talent loss (European Commission 2000a, b). The ERA's progress reports highlight the increasing share of women in tertiary education systems across Europe, but also note that the “glass ceiling” persists; although one third of all researchers are women, this percentage decreases to less than a quarter in the case of higher positions within the “research hierarchy” (European Commission 2019c).

In Greece, it is interesting to note that, while gender imbalances in research and higher education are rather similar to those observed in general in other EU member states, the country lags behind in policy initiatives and measures to promote further gender equality in this area of public policy. In other words, gender equality in research and higher education has not been prioritized in the agendas of Greek governments, and/or has been assigned a low priority in the country's overall gender equality agenda. This is even though, in addition to factors such as greater care and family responsibilities, which are common to all women irrespective of their career path, women in this area also have to deal with the dominance of male-dominated networks in decision-making and institutional structures. Such networks play a crucial role,

diminishing women researchers' chances of reaching high-ranking positions in academic and research institutions (Hatzopoulos et al. 2016; Anagnostou and Avlona 2019).

5.6 Summary and conclusions

The main purpose of this chapter was the presentation of aspects of the higher education system, the economy, and the labour market in order to highlight their main characteristics and the interconnections between them. The starting point was the access of young people to higher education and to the labour market. The evolution of the relevant indicators was presented, both before and after the fiscal crisis in Greece, as well as through a comparative perspective with EU's other member states.

The analysis highlighted that the share of population having at least one tertiary education degree has been constantly rising in Greece, although national performance remains still below the EU average. Focusing on the participation of young people in higher education, Greece is almost at the middle of the ranking (15th among the 28 EU member states) and near the EU average for the population aged 25 to 29; the country is placed at a much lower position (21st), when examining the 20-24 age group.

Data on higher education graduates, namely new BSc holders show that their number is rather stable across time, while the number of new MSc holders has almost doubled in the late 2010s, mainly because of the economic crisis and Greek households' difficulty to financially support studies abroad. Nevertheless, Greece ranks 27th in terms of Master's programmes graduates, as post-graduate studies are a rather recent activity for the Greek higher education institutes. At the same time, a comparatively high number of Greek students still complete their Master's studies abroad.

On the other hand, when enrolled students –rather than graduates- are examined, available data show that a high share of the

20-24 age group is enrolled in undergraduate studies. The share of enrolled students in this age group has increased substantially in recent years, a trend that reflects the fact that the national tertiary education system has become more inclusive over the last decade. The result of this is that Greece has the highest proportion of enrolled undergraduate students aged between 20-24, double that of the EU average. However, the comparison with graduates shows a significant gap between those enrolled in tertiary education and those that manage to obtain an undergraduate degree.

In terms of its share of postgraduate students in the 20-24 group, Greece is ranked 27th in the EU. The ranking is substantially improved at older ages; Greece ranks 4th in the age group 30-34. When enrolled students at the doctoral level studies are examined, Greece again ranks 4th in the age group 30-34, implying that a rather high share of Greek scientists continues their studies at an older age. Moreover, an increase in the absolute numbers of new PhD holders and PhD candidates observed since 2017, may be related to increased funding support for ISCED8 studies.

The chapter also highlighted the phenomenon of youth unemployment that has emerged as major social problem in Greece, due to the previous decade's crisis. It is clear that the economic crisis affected negatively the employment rates of tertiary education graduates; still, the employment rates of Master's and PhD holders remained higher than those of BSc holders and categories of the population without tertiary education. Despite its de-escalation since 2014, the unemployment rate of recent graduates aged 20-34 continues to be the highest in the EU (30 per cent).

Turning to human capital in the national research and innovation systems, we observe that the participation of R&D personnel in total employment increased during the crisis. This trend may be attributed to the increase of R&D expenditure, related to increased flows of funds through the National Strategic Reference Framework. As a result, the participation of R&D personnel in

total employment is below but close to the EU average. On the other hand, the distribution of researchers between different age groups shows that most researchers in Greece belong to the 35-44 age group, followed by those aged 45-54. Higher education is steadily the most important employer for researchers in Greece, while the business sector's share is one of the lowest in the EU.

Analysing barriers that young scientists face in accessing the labour market, these seem to relate to the productive structure of Greece, as manufacturing is characterized by low technological intensity, while the share of employment in "high technology knowledge services" is among the lowest in the EU. These characteristics limit the employment of specialized workers. These dynamics persist despite the high-quality research output in Greece. It is evident, that a major weakness of the Greek research system is that it fails to transfer research results to the national production system.

Finally, women's participation in higher education, and the national RTDI system were also analysed. The share of young women aged 20-29 with a degree of higher education (undergraduate, post-graduate or doctoral studies) is higher than that of men. The difference between male and female graduates is among the ten highest in the EU. Interestingly, there are more female bachelor graduates, although there more male enrolled students. This means that more women –than men- complete their studies.

On the other hand, women's participation in tenured teaching academic personnel is significantly lower than that of men in all categories, but especially when referring to Full Professors. This feature is common to other countries as well and relates to the so-called "glass ceiling" phenomenon. As far as women's participation in the research system is concerned, the share of women in R&D personnel in Greece is above the EU average. However, while in the early stages of their research careers, namely until their early 40s, women constitute about 40% of researchers, this share declines steadily as they grow older.

Overall, it can be argued that the share of women in tertiary education and research has increased in Greece, during the last two decades; however, there are still gaps and uneven concentration of men and women in specific areas of activity. Finally, although gender imbalances in research and higher education in Greece are similar to those observed in other EU member states, the country lags behind in policy initiatives and measures to promote further gender equality in these fields.

Appendix. The Greek educational system: An overview

The Greek educational system is divided into the following levels: Early Childhood Education and Care, Primary Education, Secondary and Post-Secondary Non-Tertiary Education, and Higher Education.²⁴

Compulsory education in Greece comprises: i) one year for 5-year-old children in pre-primary school (*nipiagogeio*), ii) six years in primary school (*dimotiko scholeio*), and three years in lower secondary schools (*gymnasio*).

In terms of Primary Education, the Greek state provides public pre-primary and primary education for free in pre-primary and primary schools. Compulsory pre-primary education in Greece has recently been extended to two years, starting at the age of 4 in pre-primary school. The new framework was introduced during the 2018-19 school year in 184 municipalities around the country. It was then extended to more municipalities, until it became fully implemented at the national level for the 2020-21 school year. Each of the six grades in primary education represents a certain level of teaching and educational goals/skills defined centrally and described in detail in the curricula for each subject at each grade.

Secondary education in Greece includes two cycles, only one of which is compulsory. Compulsory secondary education is provided by lower secondary schools during the day and in the evening over 3 years, while non-compulsory secondary education is provided for a further 3 years and divided into: i) general education offered at upper secondary schools (*lykeia*, either daytime or evening), and ii) vocational education provided by *epagelmatika lykeia* - EPAL (either daytime or evening).

²⁴ For this section we have mainly relied on the European Commission's Eurydice platform that provides information on educational systems across Europe.

According to the law, the aim of the general compulsory secondary education at the lower secondary school level is to promote the multifaceted development of pupils depending on their age-related competences and on life's demands. In particular, lower secondary school helps pupils to broaden their system of values and move towards creative goals and humanitarian actions; to complete knowledge acquisition and combine it with the corresponding social concerns; to deal successfully with different situations and seek responsible solutions in a climate of creative dialogue and collective effort; to cultivate their ability to express themselves through language, formulating their thoughts clearly and correctly both orally and in writing; to realise their competences, inclinations, skills and interests and learn about various professions; and to pursue their improvement in the context of cultural, social and economic life.

Non-compulsory secondary education is offered in the three grades of upper secondary school. A lower secondary school graduation certificate is a requirement for enrolment. The types of schools that provide general non-compulsory secondary education and award equivalent certificates are: a) the daytime general upper secondary schools (*Imerisia genika lykeia*), which constitute the main provider of general non-compulsory secondary education, addressing the majority of pupils selecting a general education at this educational level (there are 1,015 daytime general upper secondary schools in Greece); b) evening general upper secondary schools (*Esperina genika lykeia*), which are attended by working pupils who wish to complete their school education. Students attend the upper secondary school in the area of their permanent place of residence. There is no age limit for enrolment in upper secondary schools. However, for the most part, the age of students ranges from 15 to 18.

Moving now to vocational education, vocational non-compulsory secondary education is offered at vocational upper secondary

schools (*epagelmatika lykeia* - EPAL), both during the day and in the evening. By law, vocational upper secondary schools administer two cycles of study: the first is the secondary education cycle, which is part of the formal educational system. There are three grades taught over three years at daytime vocational upper secondary schools (*imerisia epagelmatika lykeia*). The second is the ‘post-secondary apprenticeship class’, which is a post-secondary education cycle belonging to non-formal education and lasts for a year. Holders of school leaving and secondary-education cycle EPAL certificates, as well as older types of technical vocational education qualifications equivalent to EPAL, are eligible to enrol in the ‘post-secondary apprenticeship class’.

As far as Post-Secondary Non-Tertiary Education is concerned, the main providers of this kind of education are the vocational training institutes which operate in an organised educational context outside the formal educational system and lead to certificates recognised at the national level. By law, vocational training institutes (IEK) seek to provide initial vocational training to graduates of formal non-compulsory secondary education (general and vocational upper secondary school). IEK may be public or private, and attendance at public vocational training institutes is free of charge. The supervision of both public and private IEK, and the design of the educational framework, is undertaken by the General Secretariat for Vocational Education, Training and Lifelong Learning of the Ministry of Education.

The Greek Constitution states that higher education is public, and the State supervises and finances higher education institutions (HEIs). As part of their educational mission, HEIs provide high-quality, comprehensive education in line with developments in modern science, technology and the arts as well as international academic practice. Until 2018-2019, higher education included two parallel and distinct sectors. These were, on the one hand, the university sector, which included universities, national

technical universities, and the Higher School of Fine Arts and, on the other, the technological sector, which included technological educational institutes (TEIs) and the School of Pedagogical and Technological Education (ASPETE). However, the TEIs have now merged with the nation's university institutions. Beyond that, the Military Educational Institutions (ASEI) are equivalent to those of the university sector, the Merchant Naval Academies (AEN) are state institutes of higher education under the Ministry of Shipping and Island Policy (since 2005-2006, AEN have been equivalent to TEIs), while the State offers vocational and other specialised training in institutions of higher learning whose duration of studies does not exceed 3 years (Higher Schools for Dance and Theatre, under the Ministry of Culture and Sports; Higher Schools for Tourism Education, under the Ministry of Tourism; Higher Schools for Petty Officers, under the Ministry of National Defence; Higher School for Policemen, under the Ministry of Citizen Protection).

Higher education studies are divided into three cycles in Greece: A first cycle of studies leads to the award of a degree. Studies last at least 4 years for most majors at HEIs in the university sector. They last 5 years at polytechnics, for specific applied sciences (Agronomy, Forestry, Dentistry, Veterinary Medicine, Pharmaceutics), as well as in certain art departments (Music Studies and Fine Arts), and last 6 years for Medical School. A second cycle of studies involves attendance on a postgraduate programme lasting at least two semesters and leads to the award of a master's degree (*diploma metaptychiakon spoudon*). A third cycle of studies involves attendance on a doctorate study programme, requires the preparation of a thesis, and leads to the award of a doctoral diploma. The academic year includes two semesters, and each semester includes at least 13 weeks of teaching. The end of each semester marks the beginning of the exam period. Students may be reassessed in the modules of both semesters before the start of the winter semester.

When referring to Adult Education and Training, it should be clear from the start that Greece does not have a long-standing tradition in the provision of non-formal education to adults. Greece's accession to the European Economic Community (EEC) in 1981 helped this form of educational provision to develop. The goal was to improve the competences of the workforce beyond the formal stages of education. Between 1994 and 1999, adult education rigorously applied the European Social Fund (ESF) guidelines, the aim being to ensure public funding for the development of a system of Continuing Vocational Training (CVET). From 2000 onwards, the implementation of new policies and initiatives within a lifelong learning policy framework has covered different forms of education and training. The latter enable adults to develop and reorient their education on the basis of varying individual needs, which include enriching their knowledge, developing their abilities and skills, developing their personality, and becoming active citizens. A large number of institutions which are either fully or partly subsidised by the state provide general adult education. The General Secretariat for Vocational Education, Training and Lifelong Learning within the Ministry of Education is the decision-making body responsible for planning, organising and funding the majority of adult education programmes, which are typically free of charge and accessible to all.

VOCATIONAL EDUCATION AND TRAINING (VET) IN GREECE: OVERVIEW, LABOUR MARKET ACCESS AND GENDER PERSPECTIVES

Berry Lalioti



6.1 Introduction

The aim of the present chapter is to provide the reader with a succinct but comprehensive overview of vocational education and training (henceforth VET)²⁵ in Greece, as well as of the problems and barriers hindering the labour market entry of VET graduates, in conjunction with a gender perspective on VET in the country. Overall, for decades, chronic weaknesses, as exemplified by the minimal share of public expenditures allocated for education (training included), in line with the relatively low performance of the Greek educational system, posed severe obstacles to the development of VET in Greece.

²⁵ Vocational education and training, abbreviated as VET, sometimes simply called vocational training, is the training in skills and teaching of knowledge, related to a specific trade, occupation or vocation, in which the student or employee wishes to participate. Vocational education may be undertaken at an educational institution, as part of secondary or tertiary education; or may be part of initial training during employment (e.g., as an apprenticeship), or a combination of formal education and workplace learning. See: [https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Glossary:Vocational_education_and_training_\(VET\)](https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Glossary:Vocational_education_and_training_(VET))

Yet, at the same time, VET arguably stands out as the most ‘efficient’ parameter of the system (Nektarios *et al.* 2020). The recent developments in the relevant field, as these are reflected, for instance, in the 2020 reform of VET in Greece aim, inter alia, to enhance the acknowledged ‘efficiency’ of VET, especially in terms of the labour market integration of young people.

The 2020 VET reform (Law 4763), alongside the long series of interventions in the Greek VET system that took place during the last two decades, should be also viewed in light of the broad public and academic discussion about the many advantages of VET for individuals and enterprises; but also, more generally, for the economy and society (e.g., better job prospects for workers, increases in productivity, innovation, social inclusion, etc.) (Cedefop 2011). Furthermore, whereas skilled trades (including electricians, welders and mechanics) and technician roles seem to be amongst the hardest to fill (see e.g., the research findings of a 2018 survey of employers in 43 countries, included in ManpowerGroup, 2018), there is expectation of a future strong demand for mid-level skilled jobs and medium qualifications (i.e., the kind of jobs and qualifications typically related to VET) (Cedefop 2020a).

The recent VET reform in Greece, as well as all the VET-related policies in this country, should be also seen in light of the European trend towards the modernization of VET. To this end, since 2002, at the EU level, national authorities and social partners from European countries have taken part in the so-called “Copenhagen process”,²⁶ which aims to promote and develop VET in the EU.²⁷

Actions such as the adoption of a strategic framework for European cooperation in education and training (widely known as ET 2020 and adopted by the Council in May 2009) or the

²⁶ The priorities for the Copenhagen process for 2011–2020 were set in Bruges in December 2010.

²⁷ This and the next two paragraphs largely draw on Cedefop (2021).

proposals presented by the European Commission (in June 2010) for a new impetus for European cooperation in VET, in support of the ‘Europe 2020 strategy’, are amongst the many initiatives undertaken by EU authorities. The aim was to set out objectives for improvements in VET and the strengthening of VET systems at the EU level.

Importantly, VET, alongside skills development, is currently part of the European Commission’s Covid-19 recovery efforts in the fields of employment and social policy, contributing to a large-scale plan known as ‘NextGenerationEU’. The pandemic’s impact has moved VET centre stage, giving a new impetus to the Copenhagen process, among other things.

Against this backdrop, the present study benefits from the review of the literature on the evolution and the key characteristics of the Greek VET system [including studies and policy reports published by organizations that play a key role in changes in VET in both Greece and other EU countries, such as the ‘European Centre for the Development of Vocational Training’ (broadly known as Cedefop)]. Locating problems and barriers for the labour market entry of VET graduates at the national level is a relatively under-researched policy area. Moreover, a gender-related analysis of the Greek VET system is missing altogether.

Following this short introduction, the main body of the chapter is divided into three major sections. The first outlines central features of VET in the country, as well as recent developments in the field. The second presents problems and barriers hindering the labour market entry of VET graduates. The third section highlights gender dimensions of the Greek VET system. At the end of the report, a very brief concluding discussion summarizes some of the main findings and makes some suggestions for improvements in the domestic VET system.

6.2 An overview of the Greek VET system

Overall, VET in Greece is relatively underdeveloped.²⁸ Illustrative of this phenomenon is that only approximately 29 per cent of 16-to-18-year-olds participate in upper secondary VET; a percentage which is much lower than the EU average of 49 per cent. More specifically, based on Eurostat data for the year 2018, the total share of students in upper secondary vocational education programmes in Greece amounted to 28.5 per cent, as opposed to the EU-27 average of 48.4 per cent.²⁹ Furthermore, based on Eurostat data for the same year, only 21 per cent of Greeks aged 30–34 had acquired a VET secondary level formal qualification, whilst the relevant rate in Germany was 47 per cent.

²⁸ This and the next three paragraphs largely draw on Mavris (2018), Di-aNEOsis (2020), and Nektarios et al. (2020: 10, 13). Otherwise, the source is cited.

²⁹ Other VET-related differences between Greece and the EU average include, *inter alia*, the pupil-teacher ratio or the share of enterprises employing initial vocational training (IVT) participants. Based on Eurostat data for the year 2018, the pupil-teacher ratio in vocational education programmes in Greece at the upper secondary level amounted to 7.7%, while the EU-27 average was 10.5%. The share of enterprises (for the year 2015) employing IVT participants in Greece was 9.7%, while the EU-27 average for that year was much higher (30.5%). Pupil-teacher ratios are calculated by dividing the number of full-time equivalent pupils in each level of education by the number of full-time equivalent teachers at the same level; this ratio should not be confused with average class size, which refers to the number of pupils in a given course or classroom. IVT is defined as a formal education programme or a component of it, where the working time of the paid apprentices/trainees alternates between periods of practical training in the workplace and general/theoretical education in an educational institution or training centre. For 2015, the coverage was training within ISCED levels 2-5: in other words, secondary and post-secondary non-tertiary education, as well as short-cycle tertiary education. The length of IVT should be between six months and six years. Voluntary apprenticeships/traineeships are excluded.

Seven out of ten compulsory education graduates in Greece opt for a general versus a technical education (IME-GSEVEE 2020: 5). Moreover, during the academic year 2020–2021 a total of 108,772 students was registered at the upper secondary vocational education schools, broadly known as EPAL (see the discussion below). These are the schools where most students in upper secondary VET in the country (approximately 94 per cent) is enrolled. For the same academic year, the number of students in the upper secondary general education schools was 202,782.

Whereas, broadly speaking, participation in VET is widely acknowledged to be affected by factors such as demographic characteristics, the political and social context, the economic background, the structure of the labour market and the educational level of the population (Cedefop 2014), lower participation in VET in Greece seems to be, at least to some extent, associated with the fact that general education is held in higher esteem by the public compared to VET. According to the findings of an opinion survey carried out by Cedefop, 87 per cent of respondents in Greece think that general education has a more positive image than VET. The latter is also widely regarded as an educational option for students with low grades.

Interestingly, at the same time, six out of ten survey respondents believe that participation in VET can lead to highly regarded jobs. Furthermore, the latest Eurostat data shows a steady increase of the total VET learners in Greece. This increase is attributed to increased post-secondary non-tertiary education enrolments.

VET in Greece has been strongly state-regulated. The Ministry of Education and Religious Affairs, in cooperation, occasionally, with the Ministry of Labour and Social Affairs is the one who bears the main responsibility for the VET system. In a similar vein, formal VET is mostly state financed. Apprenticeship programmes are based on national, private and/or EU funds. Most VET programmes are offered through a school-based approach, after the

completion of compulsory schooling.³⁰ VET takes place mainly at the upper secondary and post-secondary levels.³¹

Up to the very recent reform of the Greek VET system discussed in the last part of the present section (Law 4763/2020), VET programmes in the country included the following³²: School-based VET programmes³³ leading to the European Qualifications Framework (henceforth EQF³⁴) level 4³⁵/ISCED 354³⁶ upper secondary vocational education, offered by the so-called *Epaggelmatika Lykeia* (EPAL); apprenticeship programmes leading to EQF level 4/ISCED 353, offered by the so-called *Epaggelmatikes Sxoles* (EPAS) of the Hellenic Manpower Employment

³⁰ Compulsory education in Greece lasts 11 years and extends from the ages of four to 15.

³¹ See https://eacea.ec.europa.eu/national-policies/eurydice/content/secondary-and-post-secondary-non-tertiary-education-20_en

³² This and the next paragraph largely draw on Cedefop and EOPPEP (2019).

³³ There are several VET learning options: school-based learning; work practice (including internships and apprenticeships); self-learning (too partial).

³⁴ The EQF is an 8-level learning outcomes-based framework for all types of qualifications that serves as a translation tool between different national qualifications frameworks. See <https://europa.eu/europass/en/european-qualifications-framework-eqf>

³⁵ National qualifications frameworks (henceforth NQF) levels of the Greek educational and training system are the following: elementary school certificate (NQF level 1); lower secondary school certificate (NQF level 2); vocational school certificate (EPAS) /vocational upper secondary school degree and certificate (EPAL) /general upper secondary school certificate (NQF level 4); vocational upper secondary school degree, apprenticeship class / vocational training diploma (IEK) after graduates' certification/post-secondary and not higher education diploma or degree (NQF level 5); bachelor's degree (NQF level 6); bachelor's degree of 5 years /master's degree (NQF level 7); doctoral degree (NQF level 8).

³⁶ Also see <https://www.cedefop.europa.eu/el/content/initial-upper-secondary-vet-programmes-isced-354-kutsekeskharidusope>

Organization (OAED); post-secondary VET programmes leading to EQF level 5/ISCED 453, offered by the so-called *Institouta Epaggematikis Katartisis* (IEK); apprenticeship programmes leading to EQF level 5/ISCED 453, offered by the EPAL; higher professional programmes leading to EQF level 5/ISCED 655, offered by the so-called *Sxoles Anoteris Epaggematikis Ekpaideusis* (dance and theatre schools, schools of petty officers and the academy of merchant navy); post-secondary vocational programmes provided by universities leading to EQF level 5 (the so-called *Kentra Epaggematikis Ekpaideusis* programmes – VET centres; currently not available). Overall, despite the series of interventions in VET outlined below, fragmentation, as this is reflected in the relatively large number of structures offering VET programmes, remains one of the (long-term) characteristics of the VET landscape in Greece.

Over the course of the last decade in particular, a series of policy interventions³⁷ aimed at reforming the Greek VET system, largely in line with EU principles and standards. Illustrative of this effort is the 2013 VET reform (Law 4186/2013), which eventually reproduced, however, at least according to some policy analysts (see e.g., Nektarios *et al.* 2020), the VET structures (and problems) that typified the foregoing system for many decades. Issues such as the need for closer links between VET and the labour market, as well as for the more extended participation of social partners in the VET system and the establishment of a stronger connection between initial and continuing vocational training are argued to have remained unsolved.

Largely based on the idea that enhancing the domestic VET

³⁷ Some of the legislative initiatives targeted at upgrading the Greek VET system are Laws 3848/2010 and 4009/2011, as well as Joint Ministerial Decisions 26381/2017 and 26385/2017. Furthermore, the Ministerial Decision 26412/2017 of the Ministry of Education and Religious Affairs introduced, *inter alia*, a quality framework for VET studies. Also see Cedefop (2014: 20-21), and Cedefop (2020c).

system could function as a solution to challenges raised by the financial crisis, such as the wave of brain drain, only a few years later (in 2016), another effort of VET reform (Law 4386/2016), sought, *inter alia*, to upgrade and expand apprenticeships, whilst also introducing a new VET pathway (i.e., a one-year apprenticeship programme at the post-secondary level, the so-called ‘EPAL apprenticeship year’). Next, a National Committee for VET, which was responsible for coordinating the governance of the VET system, as well as for monitoring the implementation of the 2016 National Strategic Framework for the upgrade of VET (apprenticeships included) and for evaluating their results, was set up in 2017 (Law 4485/2017). Broadly speaking, because of the 2013–2017 policy developments in the field of VET, new bodies were established, as a means to strengthen the cooperation between public authorities and labour market actors. Progress was also made in further developing the NQF and the validation system, among other things.

In the years that followed, examples of the main actions adopted in the VET field included the establishment of the KEE, which offered two-year university programmes for formal upper secondary VET (EPAL) graduates and the launch of an initiative to train in-company trainers in 2019. What is arguably more important, however, is that in 2020, Law 4763/2020, was adopted. The law reflects the government’s intention to increase the uptake of VET and its role in all educational levels. The goal is to adapt, in a more effective way, the overall educational system to labour market needs, by changing the analogy between general education and VET, in favour of the latter.

To this end, Law 4763/2020 has led, *inter alia*, to the following changes: the establishment of a national VET system, which is supported by both central and peripheral structures and councils; the integration, for the first time, of VET (apprenticeships and internships included) into the formal educational system,

resulting in solely continuing vocational training remaining part of non-formal education; the creation of new structures of private education-training (e.g., via the establishment of two-year vocational training schools, immediately after the completion of studies at the first cycle of study of secondary education, i.e. the so-called ‘gymnasio’³⁸); the recognition of novel structures engaged in certification procedures, since the ‘National Organization for the Certification and Qualifications and National Guidance’ (henceforth EOPPEP) is now capable of allowing licensed private bodies to be in charge of the procedures related to the certification of non-formal education and qualifications; the establishment of EPAL schools that will cooperate very closely with representatives of the local labour markets and function as models of VET studies; the enhanced role and participation of national social partners in the design, implementation and the governance of the VET system; the possibility for IEK and EPAL apprenticeship year graduates, upon receipt of their diplomas (and certification from EOPPEP) to take part in qualifying examinations, so as to enter tertiary education; the acknowledgment of the flexibility of the teaching staff with regard to professional specializations.

As a result of the recent VET reform, the newly-established national system of VET (*Ethniko Systima Epaggelmatikis Ekpaideusis kai Katartisis*, ESEEK) is currently developed at levels three (3), four (4) and five (5) of the NQF, in line with the EQF.³⁹ More specifically: at level three (3) are the so-called *Epaggematikes*

³⁸ ‘Gymnasio’ (γυμνάσιο) is a lower secondary programme, which is compulsory, lasts three years, provides general education and covers ages 12 to 15. Graduation from ‘gymnasio’ is a prerequisite for enrolling at general or vocational upper secondary schools. Note that there is also an evening lower secondary programme (‘esperino gymnasio’, *εσπερινό γυμνάσιο*), for which attendance starts at the age of 14.

³⁹ This paragraph is based on https://eacea.ec.europa.eu/national-policies/eurydice/content/secondary-and-post-secondary-non-tertiary-education-20_en

Sxoles Katartisis (ESK) and the EPAS-OAED; at level four (4) are the EPAL and the upper secondary schools of the unified special vocational secondary schools (*Eniaia Eidika Epaggelmatika Gymnasia-Lykeia*, ENEEGY-L); and at level five (5) are the IEK and the Post-Secondary Year/Apprenticeship Class of EPAL.

The reform triggered reactions from parties of the opposition and teacher representatives, such as the Greek Federation of Secondary Education State School Teachers (OLME), who argued that the new law on VET and lifelong learning would eventually increase the number of unskilled workers, who would end up being used as cheap labour force. Furthermore, those against the 2020 VET reform claimed that it subordinated VET to the needs of the financial market and to those of enterprises, as well as to the interests of the Hellenic Federation of Enterprises (SEV) and the Organization for Economic Cooperation and Development (OECD).

Others, such as the IME-GSEVEE, that is, the scientific institute affiliated with the federation representing SMEs in Greece, acknowledged, however, both positive and negative features in the reform.⁴⁰ The former included, for instance, the enforced role of social partners in VET and the integration of IVT⁴¹ (essentially IEK) in formal education.

Criticism, on the other hand, was largely centred on the establishment of the vocational training schools (ESK), immediately after the completion of ‘gymnasio’. The main argument against these schools was that they do not provide opportunities for upward occupational mobility. The reason is that, following graduation, the only option offered to graduates is to be registered at the second year of the EPAL.

Studies at ESK are also argued to reproduce the deep injustices rooted in the domestic labour market, by means of ‘pushing’

⁴⁰ This and the next two paragraphs draw on Lintzeris (2020).

⁴¹ Law 3879/2010 distinguished between initial and continuing VET.

young men and women, who are in a state of financial need or who are facing difficulties in entering the highly competitive Greek educational system, towards a relatively ‘short’ training option; and, eventually, towards an early entry into working life, without allowing them, at the same time, to develop the essential skills needed to cope with what is a very demanding and tough labour market. Another example of a change deemed to be negative is the decision reached to acknowledge ESK as equivalent to the EPAS-OAED, since this decision is believed to undermine the quite successful OAED apprenticeship system.

Similar initiatives to review the changes introduced by the recent VET reform had been undertaken by different stakeholders (see, for example, INE and KANEP (2020), on behalf of the ‘General Confederation of Greek Workers’, GSEE). In sum, the reform is acknowledged to include actions which may improve the connection between VET and the labour market, without coping effectively however, with challenges such as the overall VET governance or the issue of professional rights. The degradation (by one level) of the EPAS at the NQF is also argued to be a move in the wrong direction (Kokkos 2020: 18).

6.3 Problems and barriers for the labour market entry of VET graduates

The labour market outcomes achieved by VET graduates, as exemplified by the speed of the education-to-work transition and the stability of the employment relationship, appear, broadly speaking, to be better than the ones attained by general education graduates (e.g., IOBE 2020). Hence, the employment-related benefits of VET studies are often included in the main arguments used in favour of VET compared to general education.

Yet, we should keep in mind that a 21-year-old VET graduate has probably started working at the age of 18, while a 21-year-old

general education graduate, who, for example, was enrolled in university but then dropped out, would not have started working (or looking for a job) until she/he was 20 years old.⁴² The type, the quality of the work position and especially job-related earnings may have been affected by the length of employment.

Additionally, it should be noted that the association between VET and labour market outcomes cannot be interpreted as a causal relationship. A series of variables which may affect the foregoing association should be taken into account. Gender, discussed in the next section of this chapter, is one of these variables. In short, VET is chosen predominantly by men, who are more likely, however, to achieve better outcomes in the labour market, as these are reflected in the higher probability of getting a job, receiving a higher wage for the same type of work, etc. Without controlling for gender, when comparing the labour market outcomes of VET with those of general education, the gender effect could be therefore mistakenly attributed to VET.

Other parameters which appear to affect the labour market outcomes achieved by VET graduates include, among other things, their work experience and whether they have graduated from a VET programme with a workplace content or not.⁴³ Also, there doesn't seem to be a linear connection between youth unemployment levels and the high participation of youth in VET (Paidoussi 2014: 45-46).

The entry of VET graduates in the Greek labour market, and related issues, such as obstacles hindering this entry, are relatively under-researched themes. Still, according to an opinion survey on VET in Greece, carried out by Cedefop and mentioned in the

⁴² This and the next paragraph draw on Cedefop (2012: 14, 32, 41, 45, 73).

⁴³ Please note that VET programmes can sometimes be exclusively school based. Also see <https://www.eqavet.eu/eu-quality-assurance/glossary/school-based-programmes>

previous section of this report, around 64 per cent of the respondents who had graduated from VET programmes reported that they had found their first long-term job within a year after graduation.⁴⁴ The percentage of the survey respondents who had completed general education studies and who reported that they had managed to do the same was much lower: 49 per cent.

This research finding should be seen alongside another finding from the same survey, according to which over half of the survey respondents in Greece feel that upper secondary VET graduates are more likely to find a job following their studies, compared to upper secondary general education graduates. This expectation is nevertheless rather unsurprising; partly because general education prepares students for higher education. Moreover, it should be noted that, based on the results of an older study, which provides evidence from the LFS (Cedefop 2012), when compared to other EU countries, the propensity of VET graduates in Greece to continue their education, is lower.

Broadly speaking, the job perspectives for VET graduates in Greece appear to be promising. The reason is the quite high percentage of occupations in the country that require the medium level of qualifications, which is largely associated with VET studies: 62 per cent (in 2018), as opposed to the total of 31 per cent of all work positions, which are in occupations that demand a high level of qualifications (Nektarios *et al.* 2020: 8).

Furthermore, between 2014 and 2019 the increase (19 per cent) in the employment rate of 20–34-year-old VET graduates (ISCED 3-4) was much higher compared to the increase in the employment of all 20–34-year-old graduates (6 per cent) in the country over the same period. At the same time, the increase in the employment rate of 20–34-year-old VET graduates (ISCED 3-4) in the EU27 was much lower (6 per cent). Yet, the percentages of the ISCED

⁴⁴ This and the next paragraph draw on Mavris, 2018.

3-4 graduates employed in the EU27 during the period of reference (76.7 per cent for the year 2014 and 81 per cent for the year 2019) were much higher compared to those for Greece (53 per cent and 62.9 per cent respectively); indicating therefore that the employment rates for VET graduates in Greece remain relatively low. Graph 6.1 (below) reflects these findings:

Furthermore, interestingly, based on OECD data, learners in Greece tend to graduate from VET programmes at a younger age than in the rest of the OECD. Specifically, 90 per cent of Greek upper secondary VET graduates are under 25 years old, against 80 per cent on average for the OECD countries.⁴⁵ Greece is also one of the few EU countries, however, to report an ‘income premium’ for general education over VET for the individuals surveyed (Cedefop 2012).

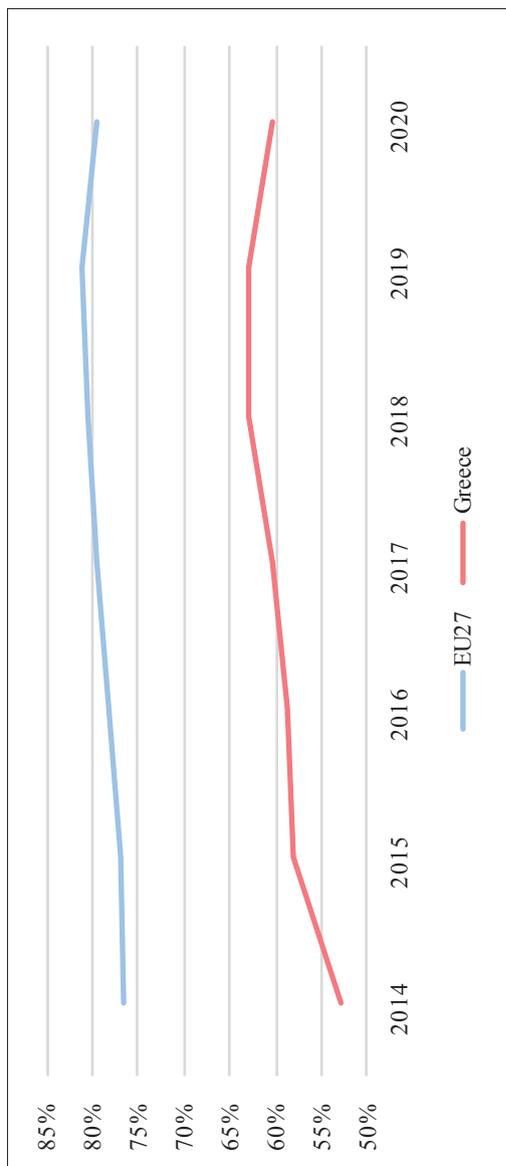
As already mentioned, the problems and barriers for the labour market entry of VET graduates in Greece is a relatively under-researched subject. Yet, a few years ago, a large-scale project, which examined the review and the subsequent reform of a part of the Greek VET system, i.e., apprenticeships, delved, inter alia, into the labour market responsiveness of the apprenticeships offered mainly by the EPAS-OAED.⁴⁶ Hence, the researchers involved in the project explored issues that hindered the labour market transition of EPAS graduates.

The research concluded that there were rather minimal and informal procedures, which allowed apprenticeships to respond to or to anticipate labour market needs; and therefore, to facilitate the labour market entry of graduates. For instance, every year, in May, the EPAS approached private and public companies to identify company needs in VET specializations and to encourage

⁴⁵ For recent OECD data on education in Greece see OECD, 2020a.

⁴⁶ This and the next five paragraphs draw on Karantinos, Lalioti and Chrysakis (2017), Vergani et al. (2017) and Cedefop (2018).

Figure 6.1
Employment Rates of VET Graduates (20–34-year-old, ISCED 3-4)



Source: Eurostat

them to offer apprenticeship positions. The selection of companies to participate in apprenticeship programmes was based on the labour market research conducted by the EPAS and the teachers themselves; meetings (attended by representatives of EPAS-OAED, social partners and chambers); and the development of personal networks between the EPAS teachers and employers. Hence, the selection of enterprises to participate in apprenticeship programmes was carried out on an *ad hoc* basis and through what essentially was an ‘unstructured’ labour market research.

In a similar vein, in defining specializations, OAED considered both studies on labour market needs and trends, conducted by research centres and universities, and the opinions of the associations of EPAS teachers. Overall, the selection of the occupational profiles to be offered as apprenticeship specializations was not yet systematically aligned with labour market needs.

Teachers likewise updated curricula on an informal basis, to make them conform to labour market needs. The stakeholders interviewed argued that otherwise, the updating of curricula by the Ministry of Education and Religious Affairs [more specifically by the Institute of Education Policy (henceforth IEP)] was extremely time-consuming. The readjustment of curricula required considerable time, as it involved a bureaucratic procedure by the foregoing Ministry and IEP.

These delays, viewed in conjunction with technological advancements and the failure to conform with these advancements on time, often resulted into out-of-date curricula. Furthermore, the curricula defined only the school-based component of learning, whereas the workplace component was missing. Overall, there was limited room to adapt, through formal channels, VET specializations and curricula to local labour market skill needs. Neither the outputs and outcomes of apprenticeship were regularly monitored and evaluated.

In the light of these and other findings, interviewees made a series of suggestions for improving the responsiveness of the

apprenticeship system to labour market needs. These included the closer collaboration between the EPAS teachers and Public Employment Service (PES) offices, the need to update curricula and apprentices' skills (including improvements in the combination of technical and horizontal/soft skills), and the promise that companies that took on apprentices would receive more publicity, among other things. In sum, the research highlighted a series of factors that resulted into the relatively weak connection between the apprenticeship system and labour market needs and undermined the job perspectives of graduates.

The relevant bibliography corroborates such findings. Impediments to connecting VET with the labour market are discussed, alongside the sociological stereotypes against being a VET student and the complexity of the VET-related legal framework, as major problems with an impact on the overall VET attractiveness. The inadequate links between VET and labour market needs are reflected, *inter alia*, in the relative low employment rate of the unemployed who attended training programmes. This rate is argued to be largely in line with the permanent inability of the Greek state to promote the unemployed into the domestic labour market, but also with the limited use at the workplace of skills acquired through training (Kokkos 2020: 11-12).

The limited connection of a lot of VET diplomas to professional rights⁴⁷ has been mentioned as another major obstacle to the labour market entry of VET graduates (Cedefop and EOPPEP 2019). Illustrative of this weakness is that, despite the rapid growth of the construction sector in Greece, which took place before the 2008 financial crisis, the gap in established professional rights for technicians of medium and low-level qualifications, who were

⁴⁷ Only IVT was linked to professional rights (licences), whereas some IVT programmes gave learners access to the next qualification level (post-secondary or tertiary level).

engaged in the foregoing sector, seems to largely explain why student enrolment in the relevant EPAS specializations was rather small (Cedefop 2014: 20). The lack of a complete system for the recognition and validation of the professional qualifications acquired through training, i.e., a system that would draw on the diagnosis of labour market needs and lead to the certification of qualifications and, finally, to the award of professional diplomas lies at the heart of the labour market transition problem faced by many VET graduates (Kokkos 2020: 13-14).

The barriers in the labour market integration of VET graduates are also arguably associated, however, with the relative lack of adequate skills, that is skills which conform with the needs of enterprises at the national and local levels. Based on the findings of a survey conducted by the Hellenic Federation of Enterprises (henceforth SEV), 42.6 per cent of businesses mention the lack of appropriate skills and of work experience, as a reason for not being able to fill medium-level job vacancies (Nektarios 2020: 23). Broadly speaking, SEV largely attributes this difficulty to the inadequacies of VET and the limited connection between VET programmes and real labour market needs (SEV 2020: 10).

The above should be viewed in conjunction with the rather minimal long-term interest of the Greek state and of the relevant authorities in the systematic collection of data on the demand and offer of skills in the domestic labour market. Despite exceptions (see e.g., one of the initiatives on this subject undertaken by SEV) (SEV 2013), the little attention paid to skills development and skills-related issues hindered for years the adoption of a long-term strategy for the educational programmes offered within VET (but also within the Greek educational system in total). The extensive dependence of the Greek VET system on European funds is argued to have resulted in interventions undertaken mainly on the basis of the absorption of these funds and not on the actual demands of the national and local labour markets in the country (Panitsidou 2008).

The distance between reality and theory in terms of VET governance is also relevant to the subject discussed here. For instance, VET Regional Committees are responsible for making suggestions to the Regional Councils for VET issues, and the connection between VET and the labour market. In practice, however, as also discussed in a previous part of the present study, the specializations offered by the EPAS (and EPAL) are determined by the teaching staff, after considering the existing laboratory equipment; and without essentially any extensive consideration of labour market needs (Nektarios *et al.* 2020: 21).

That being said, we should keep in mind that VET is mainly supply-driven. This practically means that VET providers deliver what they have the capacity to deliver. At the same time, however, VET ‘consumers’, i.e., learners and families, are not sufficiently informed about which programmes and skills have a favourable return in the labour market (Cedefop 2020b: 30). The severe implications of the recent financial crisis (and currently of the Covid-19 related crisis), as exemplified by the continuous worsening of labour market conditions in Greece, have likewise posed further challenges to the future labour market transition of VET graduates; but also, to enrolment goals and the overall VET system (Cedefop 2018, OECD 2020b).

Against this backdrop, during the last few years, we should acknowledge the effort made (albeit slowly) to improve the links between the VET system and the labour market. A major step in this direction was the establishment of the Mechanism for the Diagnosis of Labour Market Needs, operating under the auspices of the National Institute of Labour and Human Resources (henceforth EIEAD); that is a legal entity supervised by the Ministry of Labour and Social Affairs. The key objectives of the Mechanism include, *inter alia*, the analysis of the supply of, and demand for, occupational categories and skills, as well as the identification of training needs at the national and local levels.

Indeed, labour market information may be used, to inform, among other things, evidence-based policymaking in the field of VET. To this end, the Mechanism is expected, more specifically, to function as a systematic input, shaping continuous feedback loops between VET and changing labour market needs. The VET directorates of the Ministry of Education and Religious Affairs, as well as EOPPEP, could use, for instance, the Mechanism's findings as a basis for updating VET qualifications, programmes and learning outcomes (Cedefop 2020b: 18).

More recently, an effort has been also made, at least in a more systematic manner, to track VET graduates, as well as to trace the parameters that favour and/or hinder their labour market entry. Illustrative of these efforts are the surveys carried out by EOPPEP (with the cooperation of EIEAD),⁴⁸ and by the 'Centre for the Development of Educational Policy' of the General Confederation of Greek Workers (henceforth KANEP-GSEE 2020).

Both considered the labour market transition of IEK graduates, in line with a Council Recommendation (in November 2017), which invited member states to improve (by 2020) the availability and quality of data concerning graduate activities. As briefly discussed below, these surveys explored issues such as the skills used by graduates at the workplace, the impact of certification upon employment rates, etc.

Initial findings from the EOPPEP-EIEAD research stressed, for instance, the importance of skills certification. More specifically, IEK graduates who had received certification from EOPPEP scored three times higher, in terms of employment rates, than

⁴⁸ For the research conducted by EOPPEP and EIEAD also see <http://eqavet.eoppep.gr/epikairota/diethnes-synedrio-me-thema-parakoloythisi-tis-poreias-ton-apofoiton-tis-epaggelmatikis-ekpaidesis-kai-katarthisi-stin-agergasias-i-periptosi-ton-apofoiton-i-e-k-diapisto-seis-kai-symperasmata>

IEK graduates without certification. Furthermore, almost half of the graduates interviewed had already found a full-time job. The percentage of those who were still unemployed was 25 per cent. IEK graduates also managed, broadly speaking, to find a job that was relevant to their specialization.

More recent results,⁴⁹ from the same research, indicate that almost three out of four IEK graduates (71.8 per cent) worked following their graduation (approximately 76 per cent for men and 69 per cent for women).⁵⁰ Additionally, once again, roughly three out of four IEK graduates reported that their first job was completely relevant or very relevant to their specialization. More than half IEK graduates have remained in their first work position and three out of four have a full-time post.

Importantly, half of the unemployed IEK graduates reported that they did not manage to find a job relevant to their specialization. Specializations which lead to high rates of full-job employment include, inter alia, rescuers-ambulance crews, radiology and actinology assistants, and medical device technicians. It should be also noted that gender differences are pronounced in a series of findings, as exemplified by the much higher unemployment rate for female IEK graduates (27.43 per cent), compared to male IEK graduates (17.04). Overall, certification appears to improve the labour market transition and integration of IEK graduates.

Additionally, part of the EOPPEP-EIEAD research focuses on the interaction between employers and IEK graduates, as exemplified by the data collected on the most common method utilized to hire IEK graduates, namely taking into account their CVs.

⁴⁹ Released in December 2020 and presented at a round table in March 2021.

⁵⁰ The information included in this and the next two paragraphs is based on the presentation of the relevant findings. See <https://www.minedu.gov.gr/news/48249-01-04-21-diethnis-imerida-e-o-p-p-e-p> and mainly <https://www.youtube.com/watch?v=QwZrVqRA59Q>

Interestingly, IEK graduates working as accountant assistants are the ones who are valued the most by employers, whilst certification is a key criterion for hires solely for half of the enterprises of the research sample (and only for specific specializations, such as health care assistants). EOPPEP is planning to develop a broader and more systematic tracking mechanism in the near future.

In the case of the research carried out by KANEP-GSEE, the findings highlight, *inter alia*, that those who have found work, are mainly employed on fixed-term contracts; and, generally speaking, under what is termed as a ‘flexible’ form of employment.⁵¹ Access to social insurance is also regarded by IEK graduates as the most desirable feature when seeking a job; although the majority of respondents mentioned that they were often forced to accept a work position without the desired prerequisites.

Lastly, according to the data included in the ‘Cedefop Skills Forecast for Greece’, in the short-term there may be shortages among the medium-qualified. VET graduates are largely classified as employees with a medium level of qualifications. Additionally, based on the relevant bibliography (see e.g., Cedefop 2012: 56), they are more likely to perform medium-skill (especially manual and technical) occupations.

Hence, the future could bring new job opportunities for VET graduates. At the same time, we should keep in mind that the estimate of an increasing supply of higher educated workers may

⁵¹ For the research conducted by KANEP see <https://www.kanep-gsee.gr/nea-anakoinoseis/-/deltio-typou-parousiasi-erevna-kanep-gsee-di-erevnisi-tis-metavasis-ton-apofoiton-iek-stin-apascholi-sygkritika-stoicheia-prosengiseis-erminetikes-anafores/>. Furthermore, see the presentation titled ‘Exploring the Transition of IEK Graduates to Employment: Comparative Data, Approaches, Interpretative References’ [in Greek] that took place on November 4, 2020. Accessible at https://www.esos.gr/sites/default/files/articles-legacy/parousiasi_erevna_kanep-gsee_diereynisi_tis_metavasis_ton_apofoiton_iek_stin_apasholisi-1.pdf

lead to some of the higher educated being employed in occupations at a lower level than the one they qualify for (Cedefop 2020a).

Problems and barriers for the labour market entry of VET graduates should be also viewed, however, in conjunction with the gender perspective on VET and the gender inequalities in the VET system, which are outlined below. Despite variation between countries and occupations (see e.g., Bertogg *et al.* 2020), quite extensive gender discrimination is another feature that, as discussed briefly in the next section, may distort the labour market opportunities of VET graduates (especially those of women).

6.4 A gender perspective on VET

According to Eurostat data for the year 2018, 44.6 per cent of all graduates from vocational programmes in upper secondary education in the EU-27 are female. In the case of post-secondary non-tertiary education this percentage goes up to 61.5 per cent. The respective percentages for that year in Greece are 36.6 per cent and 59.9 per cent. Table 5.1 (below) reflects this data.

Table 6.1

Proportion of females among Vocational Education Programmes graduates (Year 2018, per cent)

	Upper Secondary	Post-Secondary Non-Tertiary
EU-27 ⁽¹⁾	44.6	61.5
Ireland	61.3	47.3
Finland	54.8	58.0
Luxembourg	51.2	12.7
Malta	50.5	93.9
Netherlands ⁽²⁾	50.3	-
Denmark	48.5	38.6
France ⁽³⁾	48.3	:

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	Upper Secondary	Post-Secondary Non-Tertiary
Portugal	48.2	30.7
Spain	48.2	62.0
Belgium	47.7	50.3
Austria	45.5	75.5
Bulgaria	45.1	36.5
Slovakia	45.0	54.7
Croatia ⁽²⁾	44.5	-
Slovenia ⁽²⁾	44.4	-
Czechia	44.1	44.8
Latvia	43.6	63.8
Romania	42.2	66.2
Sweden	40.4	60.6
Germany	39.8	59.5
Italy ⁽⁴⁾	38.7	51.5
Poland	38.4	76.6
Greece	36.6	59.9
Estonia	33.7	71.5
Hungary	33.1	52.0
Lithuania	32.1	54.6
Cyprus ⁽⁵⁾	26.2	28.4
Iceland	33.2	32.8
Liechtenstein ⁽²⁾	41.1	-
Norway	41.0	71.1

Note: ranked on upper secondary education.

⁽¹⁾ Post-secondary non-tertiary education: including 2016 data for Italy and 2017 data for Cyprus; excluding France.

⁽²⁾ Post-secondary non-tertiary education: not applicable.

⁽³⁾ Post-secondary non-tertiary education: not available.

⁽⁴⁾ Post-secondary non-tertiary education: 2016.

⁽⁵⁾ Post-secondary non-tertiary education: 2017.

⁽⁶⁾ 2017.

Source: Eurostat

Such data, indicating the lower rates of participation of women in upper secondary VET, should be seen alongside the much lower proportion of girls (37 per cent), compared to that of boys (63 per cent) in the student population of the EPAL, i.e., the educational units where most VET students is enrolled. More specifically, the number of EPAL students represents 34.6 per cent of the total student body in upper secondary education in Greece. As discussed below, differences in the enrolment of men and women in the Greek VET system largely reflect the resilience of stereotypes about male and female occupations in the domestic labour market (e.g., technical occupations for men and services and health for women), but also about the broader roles of men and women in Greek society (Nektarios *et al.* 2020: 14-15).

Differences in the activity rates by gender for VET graduates, such as the ones mentioned in the last part of the previous section, are also significant. These findings are confirmed by older research results. An example may be found in the outcomes of a research conducted under the auspices of the Pedagogical Institute, which showed, among other things, that there were large differences in the employment rates of male and female VET graduates⁵² (80.4 per cent for men and 64.1 per cent for women) (Pedagogical Institute 2008: 105).

There are two major possible explanations for these differences. First, especially in the case of the 25–34 group of VET graduates, women are more likely to have significant family commitments, which means that they may opt out of the labour force, even temporarily, delaying their career choices so as to have children. The second, but more problematic, explanation associates these differences with different employment opportunities for men and women. The main argument is that since employment opportunities are,

⁵² The findings regard the second phase of the research, that is, six and a half years (2007) after the first phase of the research (2000–2001).

broadly speaking, fewer for women than for men, unsuccessful attempts to find employment could have discouraged women and led them to abandon the labour force (Cedefop 2012: 39-40).

At the same time, however, there are research findings indicating that unemployed women having attended VET programmes in Greece believe that their participation in these programmes has been valuable in terms of tackling unemployment and providing them with support for entering and/or re-entering the labour market (Panitsidou, Vastaki and Valkanos 2012). Still, further research in this area is required.

A claim made in one of the few studies, which include information on the gender perspective of the Greek VET system, is that VET is typified by more intense phenomena of gender inequality, compared to other educational levels in the country. Illustrative of the dominant gender inequality in the Greek VET system is, for example, the relatively more difficult access of women, compared to men, to the foregoing system both as professors and students (Research Centre for Gender Equality 2008).

For years, the VET system in Greece has arguably reproduced gender inequalities.⁵³ The more extensive participation of boys in this system largely reflects the higher attractiveness of VET for young men than for young women. Given, however, that VET students are, to a large extent, members of the lower and middle socio-economic strata in the country, the relatively low attractiveness of VET for women is accompanied by significant implications for both the professional orientation and the labour market integration of women from the aforementioned strata.

As already mentioned above, male and female VET students also choose areas of specialization, which reproduce the well-known division between male and female-dominated sectors of the economy and professions. The most typical example of this

⁵³ This and the next paragraph largely draw on Paidoussi 2016: 22-28.

division is the high concentration of women in specializations that regard care, aesthetics and administrative services; versus the high concentration of men in specializations concerning construction, vehicle engineering and information technology.

This situation largely reflects the 'traditional' association of VET with the model of the male employee who takes part in 'industry-related' activities, which are supposedly more in line with the 'natural abilities' of men. As a result, the exclusion of women from a series of professions (and therefore professional paths) linked to VET becomes more acute (Giannakopoulou 1997; Sidiropoulou-Dimakakou 1997).

Interestingly, the criteria used by male and female VET students for the selection of their specialization also appear to be quite different.⁵⁴ Boys seem to be more influenced by factors such the family tradition in a specific occupation and the belief that a specialization will lead to a well-paid occupation. By contrast, in the case of girls the most important criterion for choosing a specific specialization is their belief that this is a choice that will help them find a job more easily.

Against this backdrop, the lower participation of female students in VET ends up being reproduced over time and contributes to maintaining a vicious cycle. This cycle is partly responsible for the fact that VET is held in low esteem by the Greek society.

This data should be viewed in conjunction with the large differences in the earnings of male and female VET graduates in Greece, which conform with broader labour market trends at the international and national levels. More specifically, the percentage of male VET graduates in the higher scale of income is much higher than that of female VET graduates in that scale. The rate of certification for women, meaning the percentage of women

⁵⁴ This and the next two paragraphs draw on Pedagogical Institute 2008: 60 and Fotopoulos 2013: 144.

who have successfully participated in certification exams for the specialization they attended, is higher, however, than that for men. Broadly speaking, there doesn't seem to be a direct connection between earnings and certification.

Yet, we should keep in mind that gender inequality in VET is not a special feature of the Greek VET system (Sotiriadou 2005). As already mentioned at the beginning of this section, gender-related differences exist also at EU level. For instance, based on Eurostat data for the year 2018, close to half (48.4 per cent) of all upper secondary (ISCED-3) school pupils in the EU-27 follow vocational programmes. The share of males (54.6 per cent) is clearly higher than that recorded for females (41.8 per cent).

Furthermore, between one-third and one-half of all graduates from upper secondary vocational programmes in the EU member states are women. As already mentioned, their share averages 44.6 per cent across the EU-27. When post-secondary non-tertiary education (ISCED-4) is taken into account, then the proportion of women among all graduates from the relevant programmes goes up to 61.5 per cent.

Overall, women seem to prefer to attend general upper secondary education, which increases the chances of their enrolment in tertiary education. Additionally, individual preferences and cultural factors seem to result in women being more likely to choose more general or academic educational paths (Cedefop 2012: 27).

Still, the high labour market segmentation, based on gender, in Greece is difficult to deny. For example, while increasing (although still small) numbers of women are entering engineering, very few men in the country choose the low paid and low status occupations of nursery workers or childcare assistants. In Germany, however, the reverse is found; there are more male children's nursery workers than female electricians (Evans, 2006).

Over the course of time, changes in the legislative framework governing VET in Greece have been argued to have affected the

participation of women in VET in an ambiguous way.⁵⁵ An example may be found in Law 4186/2013, which resulted in the abolition of many VET specializations that were dominated by female students (e.g., the health and welfare sector at the EPAL, hairdressing and aesthetics at the EPAS, etc.).

The specializations abolished were included in the programmes of the Schools of Vocational Training (*Sxoles Eppagelmatikis Katartisis*, SEK),⁵⁶ which had not been part, however, of the formal educational system and did not provide access to tertiary education. This change was assessed as being capable of encouraging female VET students to make different choices, compared to the past, in terms of specialties (i.e., move towards technical occupations). It may also encourage, however, the ‘entrapment’ of these students in educational directions with small recognition in the Greek labour market.

Initiatives such as the so-called ‘Girls’ Day’, organized by OAED in 2019 in Athens (and also planned to take place in Thessaloniki in 2021), aim at decreasing gender inequality and, more specifically, at increasing the participation of women in the Greek VET system. Specialized ‘intervention units’ for girls may be successful in encouraging them to become enrolled in specializations related to technical occupations and/or occupations that will be in demand in the future (e.g., occupations in the energy or the information technology sectors).

Redesigning vocational guidance and career counselling at the school level is likewise expected to enhance the participation of women in VET, and especially their participation in VET specializations, which are ‘traditionally’ dominated by men (Nektarios *et al.* 2020: 32, 37). That being said, Greece is one of the countries

⁵⁵ This and the next paragraph draw on Paidoussi, 2016: 28.

⁵⁶ They are currently abolished. See e.g., https://www.eoppep.gr/teens/index.php/spoudes_meta_to_gymnasio/26-sxoli_eppagelmatikis_katartisis

where vocational guidance and career counselling have played, overall, a minimal role in the selection of VET studies (European Commission 2011).

Projects targeted at fostering gender ‘mainstreaming’ in VET are also crucial to boosting female participation in VET (in occupations related to dynamic sectors of the Greek economy). An example is the ‘Gender-IT’ project, i.e., a two-year initiative co-funded by the European Union’s Lifelong Learning Programme, under the Leonardo da Vinci Action and implemented by seven partners (Greece included).⁵⁷ The specific objective of the project was to build a sustainable multi-stakeholder network at a European level, which would actively foster gender mainstreaming in VET for the information and communications technology sector.

Generally speaking, however, VET programmes have only occasionally given priority to the integration of female graduates in the labour market, and then mainly due the relevant EU policy priorities in that field, and not as a result of clearly identified needs in the domestic labour market (Galata undated). This needs to change. VET policies should become more sensitive to gender imbalances.

6.5 A (very) brief concluding discussion

The present chapter focused on the Greek VET system, by outlining, in a succinct but comprehensive manner, key features of the aforementioned system and recent policy developments in this field. Problems and barriers to the labour market transition of VET graduates and a gender perspective on VET were also discussed.

Hence, the chapter included, inter alia, information on the relatively low appreciation of VET in Greece, the high complexity

⁵⁷ See <https://www.efvet.org/portfolio-items/fostering-gender-mainstreaming-in-vet-for-the-ict-sector/>.

and fragmentation of the domestic VET system and the way the latest VET reform (in 2020) was perceived by various actors. Additionally, the report shed light upon factors that hinder the labour market transition of VET graduates, as exemplified by the mismatch between curricula/VET programmes and labour market needs, but also gender-related parameters. As discussed in the last section of the chapter, the Greek VET system is dominated by men and, among other things, reproduces gender inequality (at the expense of women).

Against this backdrop, more effort needs to be made towards two different but interrelated directions: first, the introduction of further actions targeted at enhancing the connection between VET programmes and real labour market needs at the national, regional and local levels; and second, the increase of female participation in VET. The accomplishment of such goals depends, however, on a series of issues concerning the broader situation in the domestic labour market and the welfare state, as exemplified by the minimum wage, the employers' participation in the VET system, the scope of guidance services offered to VET students and graduates, the prevailing perception regarding the value of different qualifications, etc.

That being said, in order to become more effective, VET policies should be, broadly speaking, designed (and viewed) in line with employment and welfare policies. To this end, more needs to be done, for instance, so as to expand the scope of the VET-related data kept by the Mechanism for the Diagnosis of Labour Market Needs (e.g., by focusing more on the skills of VET graduates). Next, this data should be utilized in a more systematic way as a basis for the regular updating of occupational skills profiles, VET programmes, etc.

PART III

GREEK YOUTH LABOUR MARKET SURVEY



YOUTH INCLUSION AND GENDER EQUALITY: FINDINGS FROM A YOUTH LABOUR MARKET SURVEY

Dimitris Katsikas



In the previous chapters we documented the conditions that young men and women face in the Greek labour market. The presentation was mostly based on statistical data and discussion of academic and policy literature. In this chapter, we complement the previous analysis with findings from a youth labour market survey conducted during the project. The survey's principal aim was to document the experience of young people in the labour market, with an emphasis on: a) barriers to access and professional advancement, and b) impediments related to gender. The survey also recorded youth's professional life aspirations and their views on the labour market and its institutions.

7.1 Methodology and outline of the survey

The survey was carried out in May 2021 on a sample of 650 people, aged 15 to 34. For the collection of the sample, quotas were used for gender, age group (4 sub-categories: 15-19, 20-24, 25-29, 30-34 years old), geographical region (13 administrative regions -NUTS 2 classification) and level of urbanization (5 categories: rural, semi-urban, urban, large urban, urban complexes of Athens and Thessaloniki). Table 7.1 presents the breakdown of the sample.⁵⁸

⁵⁸ There was a slight deviation from the planned sample in the quotas for

Table 7.1

Survey sample

		Sample	Percentage (%)
Age	15-19	144	22.2
	20-24	165	25.4
	25-29	168	25.8
	30-34	173	26.6
Gender	Male	336	51.7
	Female	314	48.3
Region*	Attica	234	36.0
	Aegean islands, Crete	68	10.5
	North Greece	184	28.3
	Central Greece	164	25.2
Urbanization	Big cities (Athens, Thessaloniki)	249	38.3
	Semi-urban area (2.000-10.000 inhab.)	135	20.8
	Other urban area (10.000-50.000 inhab.)	115	17.7
	Urban area (>50.000 inhab.)	70	10.8
	Rural area (<2.000 inhab.)	81	12.5
Total		650	100

*For conciseness, regions are presented according to the NUTS1 classification.

In October 2021 a second wave (booster) took place, on a sample of 200 people of the same age group. The implementation of the second wave was deemed necessary in order to document in more detail the experience of young people that are employed. For this reason, the second sample, while keeping the above-mentioned quotas, was made up entirely by young people who work. As a result, we effectively have two distinct samples; one (comprising

semi-urban and rural areas, with part of the target for semi-urban areas being covered by rural areas. The deviation is due to the difficulty respondents typically have in opinion surveys in distinguishing the “semi-urban” from other categories (e.g., urban, or rural).

650 respondents) representative of young people 15-34, irrespective of their relation to the labour market and another (comprising 511 respondents) representative of young people who work. In what follows, the first sample is used for questions addressed to all respondents irrespective of their employment status, while the second sample is used for questions addressed specifically to young people that are employed. Table 7.2 presents the breakdown of the second sample.

Table 7.2
Sample of employed youth

		Total	Percentage (%)
Age	15-19	35	6.8
	20-24	128	25.0
	25-29	171	33.5
	30-34	177	34.6
Gender	Male	263	51.5
	Female	248	48.5
Region	Attiki	188	36.8
	Nisia Aigaiou, Kriti	50	9.8
	Voreia Ellada	144	28.2
	Kentriki Ellada	129	25.2
Urbanization	Big cities (Athens, Thessaloniki)	204	39.9
	Urban area (>50.000 inhab.)	59	11.5
	Other urban area (10.000-50.000 inhab.)	86	16.8
	Semi-urban area (2.000-10.000 inhab.)	91	17.8
	Rural area (<2.000 inhab.)	71	13.9
Total		511	100

* For conciseness, regions are presented according to the NUTS1 classification.

In line with its objectives, outlined above, the survey was organized in the following seven sections: demographic profile,

current status and background, obstacles/ difficulties in entering the labour market, career advancement, gender aspect, and general attitudes regarding work and the labour market. In the remainder of this chapter, we present the main findings of the survey.

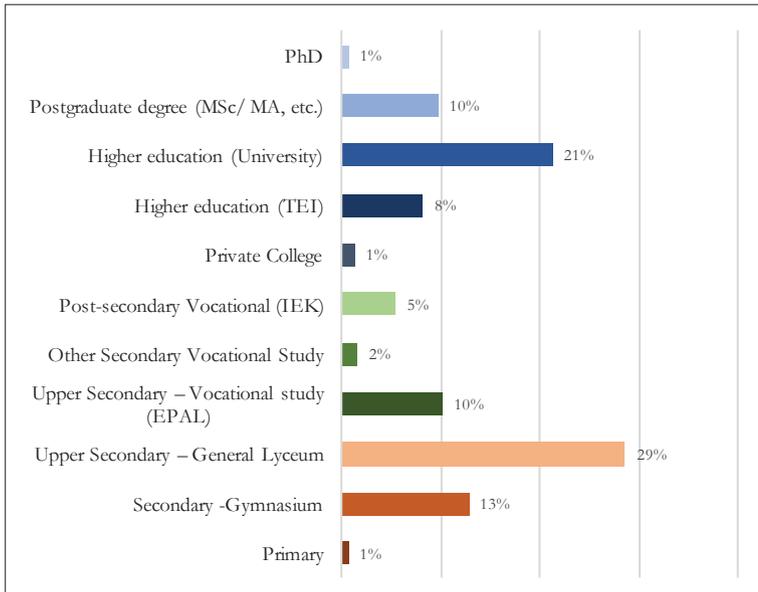
7.2 Current status and background of the respondents

7.2.1 Education

Figure 7.1 presents the respondents' level of educational attainment. The respondents were asked to state the level of education that they have completed so far. The data show that 42 per cent have completed mandatory (secondary) or upper secondary general studies education, with a minor percentage of 0.6 per cent having completed only primary education. Vocational education graduates either in (upper) secondary or post-secondary education make up 17.1 per cent of the sample, while 40.9 per cent are tertiary education graduates. Given the age profile of the sample these figures underestimate the level of educational attainment of Greek youth, in the sense that many respondents in the 15-24 groups are students and have not yet completed their studies. When we look at the older age groups (25-34) the share of mandatory or upper secondary general studies education graduates drops to 20.2 per cent, while that of tertiary education graduates rises to 60.4 per cent. Vocational education graduates make up 19.4 per cent of the sample for these age groups.

Turning to the content of the respondents' studies, Figure 7.2 presents the direction of studies for tertiary education graduates. The data show that the respondents are relatively equally distributed among three major directions: Business and Economy (including Agronomics) and Information Technology (32.7 per cent), Natural Sciences, Engineering and Health (32.4 per cent) and Humanities, Social Sciences, Education and Law (35 per cent). In

Figure 7.1
Level of educational attainment

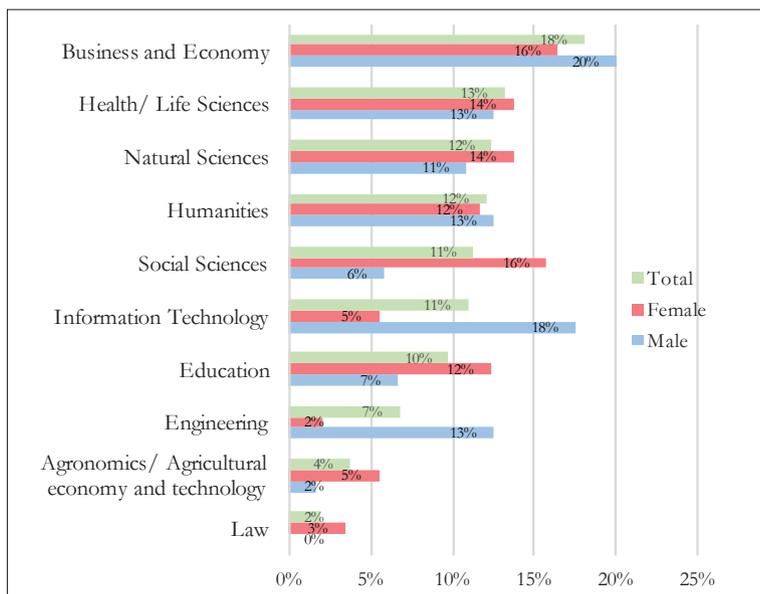


addition to the shares in the total sample, Figure 7.2 presents data separately for men and women; the data indicate a gender-based segmentation in the orientation of studies. Social Sciences and Education are preferred by women (15.8 and 12.3 per cent vs 5.8 and 6.7 per cent respectively for men), while Information Technology and Engineering are preferred by men (17.5 and 12.5 per cent vs 5.5 and 2.1 per cent respectively for women).

Turning to vocational education (Figure 7.3), we see that the fields of Health and Well-being (24.5 per cent) and Information Technology (17.3 per cent) are the most popular. The distribution of graduates in the other fields is overall balanced with most fields accounting for roughly 10 per cent of the graduates, with the exception of Nautical Professions and Mechanical Engineering, which seem to attract fewer students.

Figure 7.2

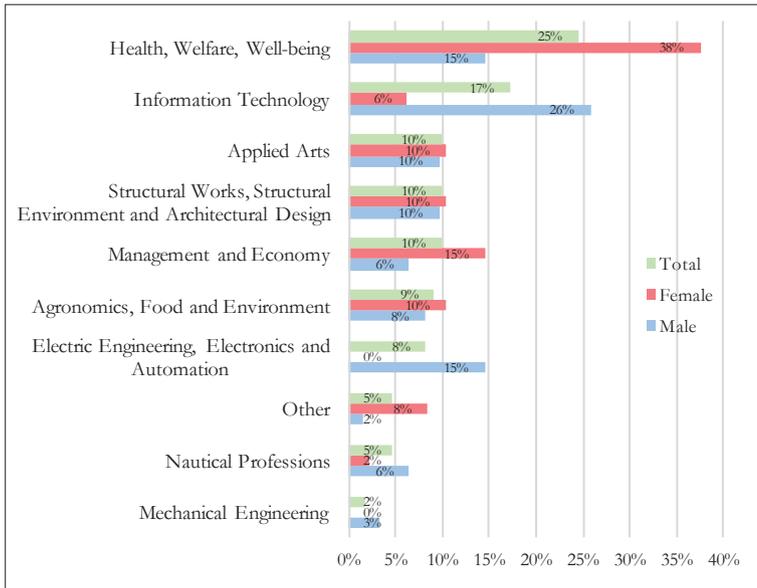
Direction of studies, tertiary education graduates



As was the case with the tertiary education, gender-based segmentation seems to be present in vocational education as well. Health and Well-being, and Management and the Economy are preferred by women (37.5 and 14.6 per cent vs 14.5 and 6.5 per cent respectively for men), whereas Information Technology, and Electric Engineering, Electronics and Automation are preferred overwhelmingly by men (25.8 and 14.5 per cent vs 6.3 and zero graduates respectively for women).

Figure 7.3

Direction of studies, vocational education graduates

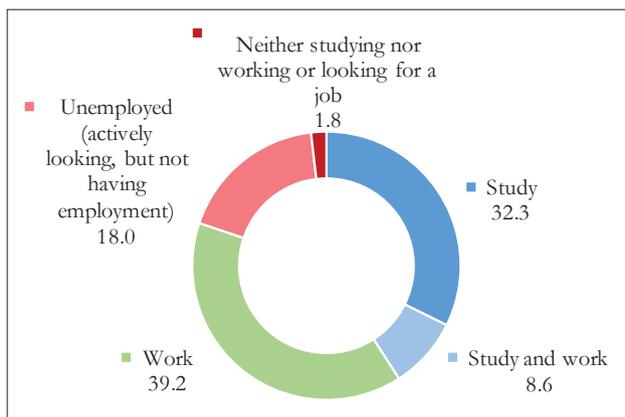


7.2.2 Current status

Next, we asked survey participants to tell us what they are currently doing. Figure 7.4 presents their answers. Over 40 per cent of the respondents answered that they are studying, with roughly one out of five of them reporting that they also work. Of the remaining 60 per cent who are not studying, 39.2 per cent are working, while 18 per cent are unemployed. Respondents that do not work, study or look for a job, account for 1.8 per cent of our sample.

Figure 7.4

Current status (%)

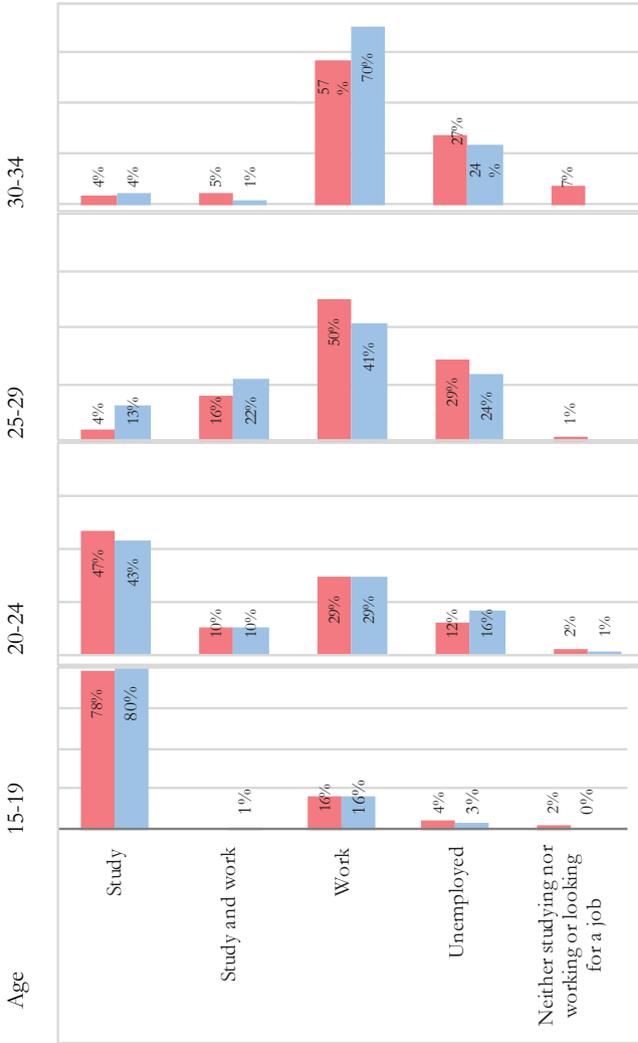


As expected, there is considerable variation when the different age sub-groups are examined. Thus, 79.2 per cent and 44.8 per cent of respondents aged 15-29 and 20-24 respectively, are studying, while 45.2 and 62.4 per cent of those aged 25-29 and 30-34 respectively, are working. After the age of 25, as more young people complete their studies and enter the labour market, the share of the unemployed begins to rise; in both the 25-29 and 30-34 age groups the share of unemployed respondents reaches 26 per cent compared to 3.5 per cent for those aged 15-19 and 13.9 per cent for those aged 20-24.

Differences are also observed along the gender dimension, particularly after the age of 25 (Figure 7.5). In the age group 25-29, women turn to the labour market more than men, who seem to take longer to complete their studies.⁵⁹ As a result, the share of both employed and unemployed women is higher compared to that of men. However, higher labour market participation does not seem

⁵⁹ This delay may relate to the fact that many young men take a break in their studies to complete their military service, which in Greece is compulsory.

Figure 7.5
Current status by gender



to be the only reason for higher female unemployment. In the 30-34 age group, the share of unemployed women is still higher compared to that of men (27 vs 24 per cent), while the share of men that work is higher than that of women (71 vs 62 per cent, taking into account those who work while studying). This means that women after the age of 25 face overall more difficulties than men in getting a job. These difficulties may contribute to the decision of some women (7 per cent) in the 30-34 age group to exit the labour market, a phenomenon not observed for male respondents.⁶⁰

7.2.3 Employment status

The next set of questions was addressed to employed respondents. The aim here was to describe the profile of the jobs that young people hold. In terms of the type of employment held, 62.6 per cent of the respondents have full-time, indefinite duration contracts, while another 14.1 per cent are also employed full-time, but for a fixed period of time. Roughly 20 per cent are employed part-time, either indefinitely (14.3 per cent) or for a fixed period of time (6.1 per cent). Finally, slightly less than 3 per cent of the respondents are in seasonal employment. Older respondents (30-34 years old) report a substantially higher share of full-time, indefinite duration contracts (71.2 per cent), compared to the younger (20-24 and 25-29) sub-groups (49.2 and 62.6 per cent respectively). Tertiary graduates report higher shares of full-time employment (82.8 per cent) compared to vocational and primary and secondary education graduates (75.9 and 65.7 per cent respectively), while the latter report higher rates of part-time employment. Finally, fewer Humanities, Social Sciences, Education and Law graduates

⁶⁰ Obviously, as has been previously discussed, this decision may also be due to family commitments and the perceived role of women in Greek society, see chapter 3.

have full time, indefinite duration contracts (57 per cent) compared to Natural Sciences and Health and Economy and Information Technology graduates (71.1 and 75 per cent respectively).

Regarding the employment status, 82.4 per cent of the respondents are employees, and 17.1 per cent are self-employed. The share of self-employment is higher for the older age group (30-34), but there is no clear age-based pattern, as those aged 20-24 report a higher share of self-employment than those aged 25-29. Older respondents are employed in greater numbers in the public sector, while a bigger share of respondents living in Athens and Thessaloniki work in the private sector. Finally, Humanities, Social Sciences, Education and Law graduates report a higher share of public sector employment.

Focusing on the gender dimension, we see that the share of women employed in the public sector is substantially higher than that of men, while there are more self-employed men than women (Figure 7.6). In terms of the type of employment, men report a somewhat higher share of full-time contracts, while a higher share of women respondents are employed in part-time jobs. Given that a large part of women respondents works in the public sector, where they are most likely employed full time, the larger overall share of women in part-time employment indicates that women employed in the private economy are far more likely than men to have part-time jobs. This is indeed verified by analysing further the data on atypical employment (Figure 7.7); after the age of 25 the percentage of women in part-time and seasonal employment gradually increases well above that of men, with the difference reaching 17 percentage points after the age of 30. Given that seasonal employment is distributed equally among the genders, the difference comes from the different shares of part time employment between men and women.

Figure 7.6
Employment profile by gender

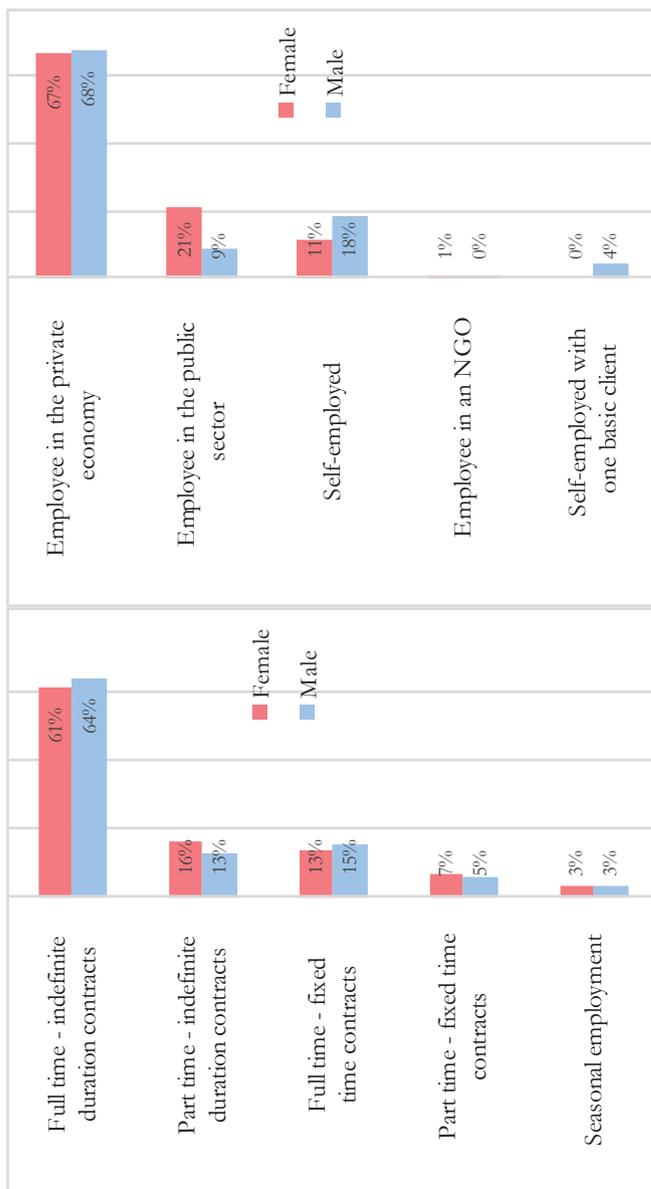
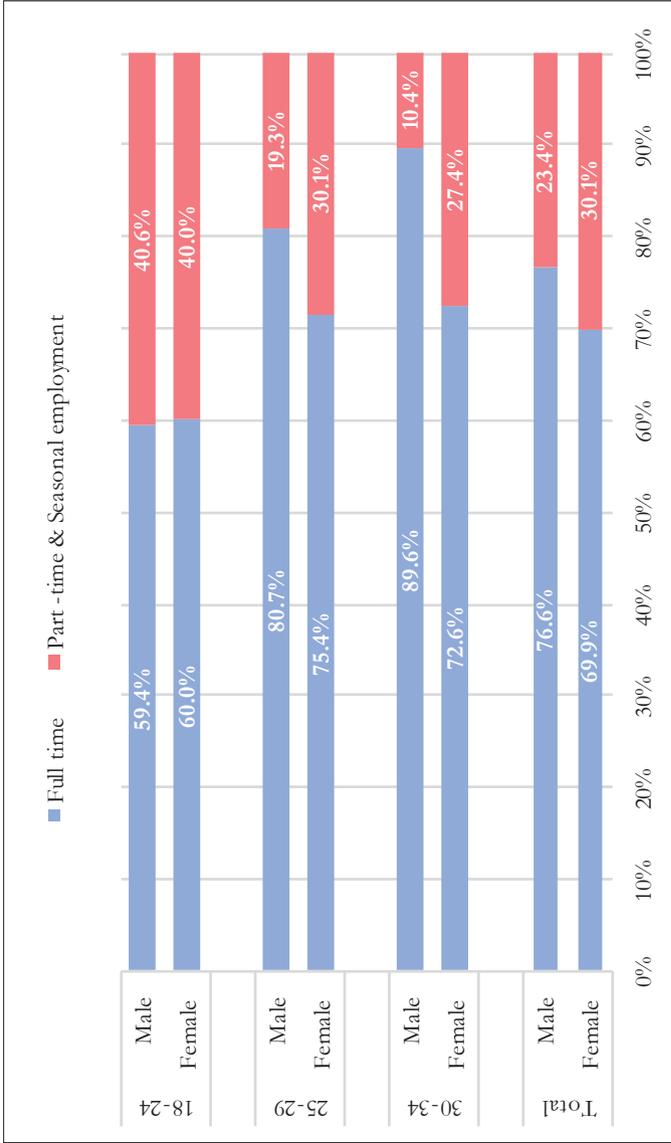
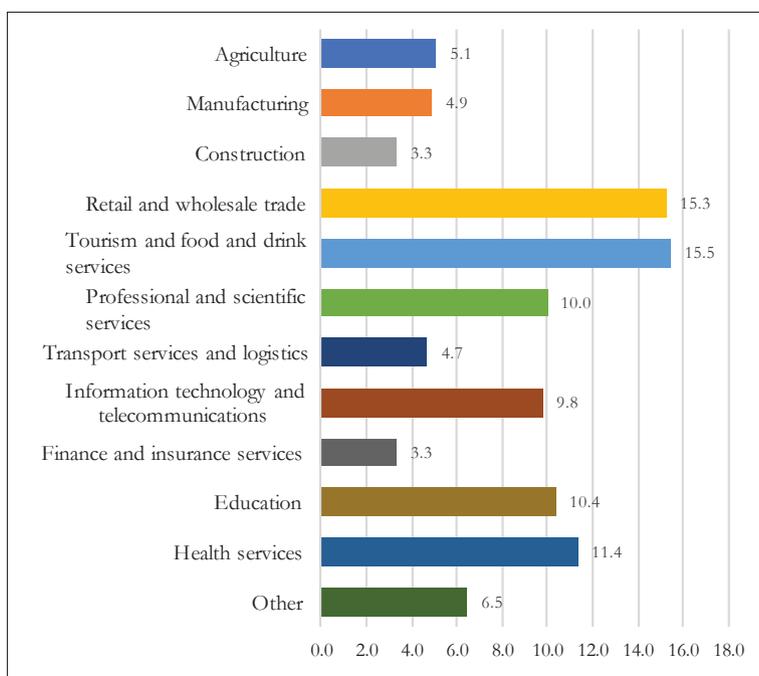


Figure 7.7
Part-time employment in the private economy by gender



Finally, a breakdown according to sector of employment seems to verify the statistical data presented in chapter 2. The top sectors of employment are Tourism and Food and Drink Services and Retail and Wholesale Trade, with 15.5 and 15.3 per cent respectively. Health Services, Education and Professional and Scientific Services, follow with shares slightly above 10 per cent (Figure 7.8).

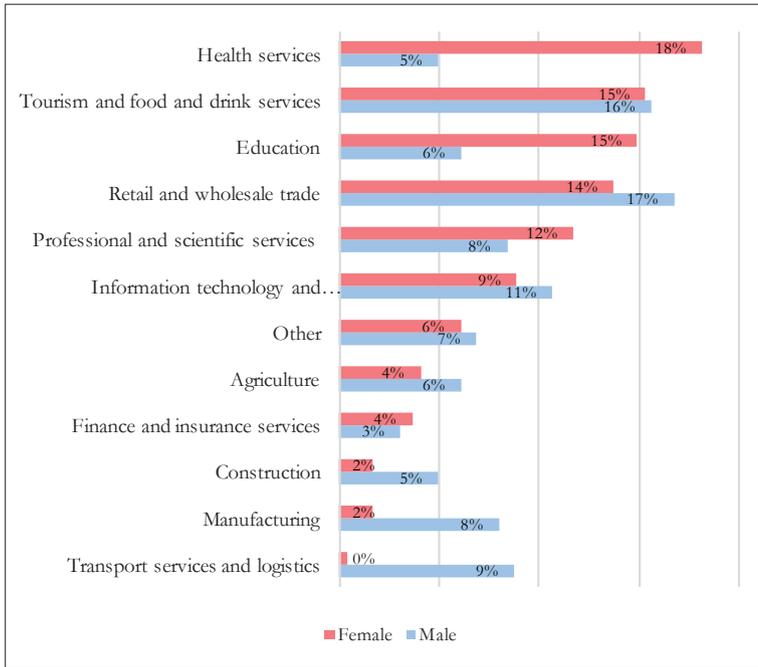
Figure 7.8

Sector of employment

The distribution to economic sectors does not seem to follow a pattern based on age, but there is substantial variation among sectors. As expected, a higher share of younger respondents works in Tourism and Food and Drink Services; on the other hand, a higher

share of 30–to-34-year-olds works in the Retail and Wholesale Trade sector and in Health. Interestingly, the older age sub-groups (25-34) report their lowest shares in manufacturing (less than 3%).

Figure 7.9
Sector of employment by gender



In terms of other features, overall, the patterns observed are expected, e.g., primary and secondary education graduates are predominantly employed in Retail and Wholesale Trade, and Tourism and Food and Drink Services, respondents living in rural areas report higher shares of employment in Agriculture, while inhabitants in the Aegean islands and Crete report higher shares of employment in the Tourism and Food and Drink Services. Finally, half of the Humanities, Social Sciences, Education and Law graduates

are employed in education. On the other hand, a gender analysis reveals a gender-based segmentation of the labour market (Figure 7.9). Health Services and Education are dominated by women, whereas Transport Services and Logistics, Manufacturing and to a lesser extent Construction are dominated by men.

7.3 Obstacles/ difficulties in entering the labour market⁶¹

7.3.1 The extent of the problem

To better document the status of young people in the labour market, we distinguished between their first job experience and the jobs related to the career they would like to pursue. As expected, the results for the respondents' first job experience reveal that for most young people (approximately two thirds), their first job is something they do to earn some income, often while studying; they tend to have atypical jobs (part-time, temporary, seasonal) that have no relation to their studies or their future careers (Figure 7.10).

A larger share of respondents in younger groups, compared to the 30-to-34-year-olds, work while studying, have atypical jobs and do work which is unrelated to their studies. Also, a higher share of tertiary graduates primarily from the fields of Humanities, Social Sciences, Education and Law work while studying. Obviously, this type of work is not indicative of young people's efforts to enter the labour market on a permanent basis, in line with their qualifications and aspirations. Therefore, we asked the survey participants how long it took them to find a job, related to the career they would like to pursue. The answers show that

⁶¹ The questions in this section of the survey were addressed to participants who are either working or who are not currently employed but have worked in the past. Given the age profile of the sample, which includes many respondents who have not yet looked for a job, the aim was to focus on youth who have some experience with the labour market.

Figure 7.10
First job experience

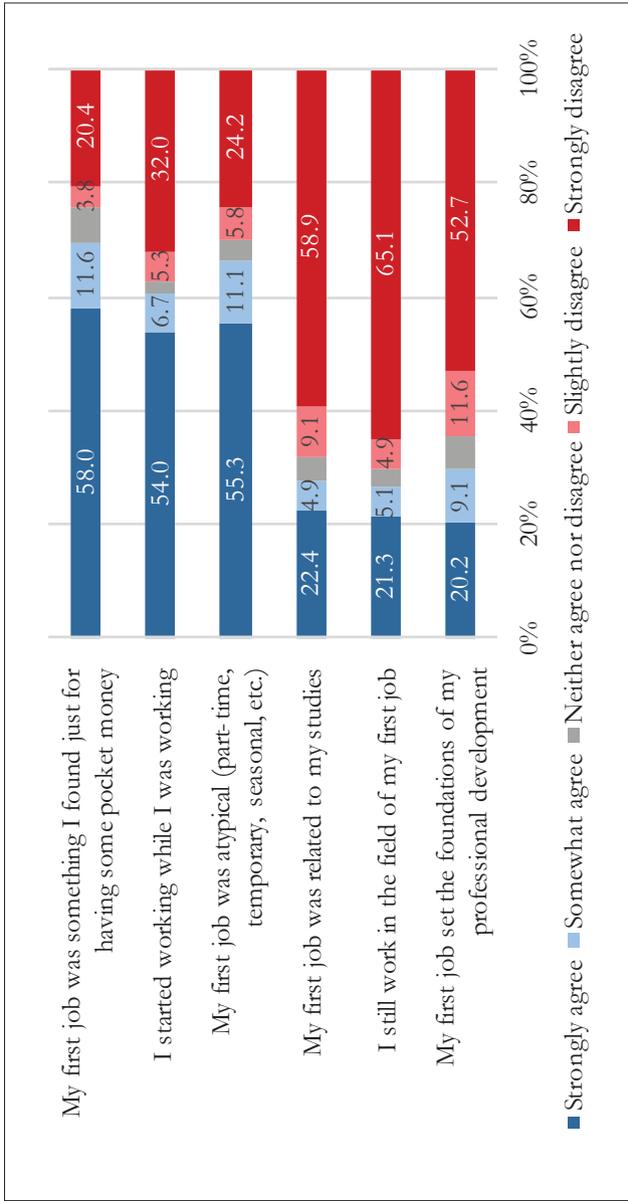
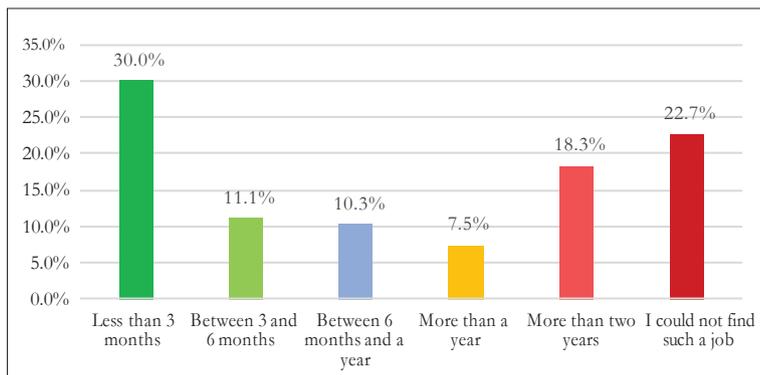


Figure 7.11

How long did it take you to find a job, related to the career you would like to pursue?*



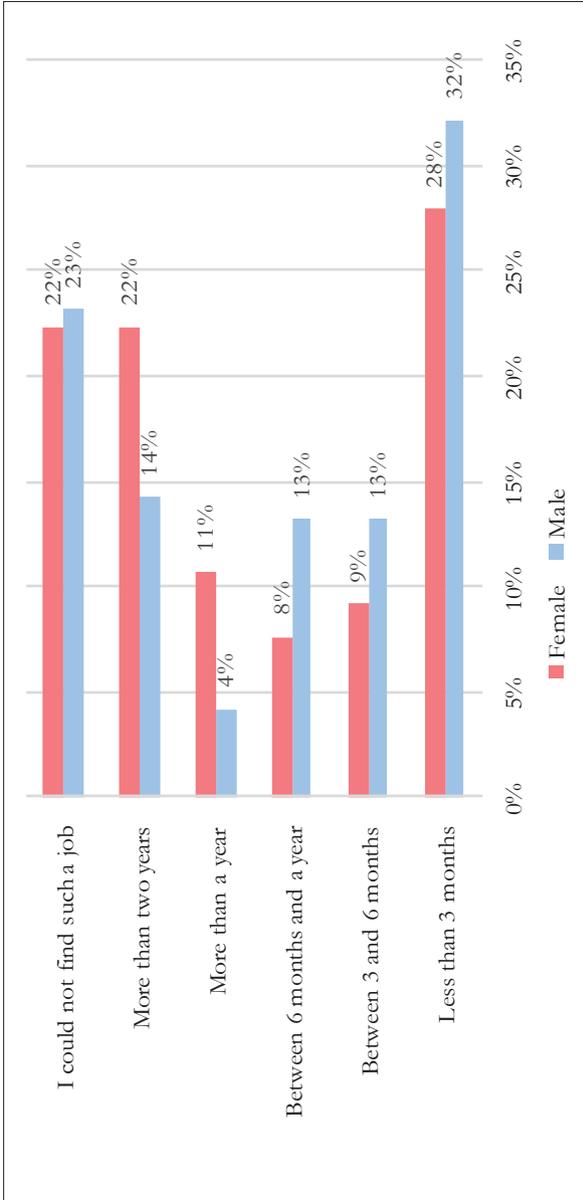
*Only for those who look for a job related to a particular career (86% of respondents).

young people have a hard time securing jobs corresponding to their aspirations (Figure 7.11).

More specifically, more than 40 per cent of the respondents faced great difficulties, as 22.7 per cent have not been able to find such a job at all, while another 18.3 per cent had to look for more than two years. Another 7.5 per cent report finding a job after looking for a period over a year, but less than two years.

Looking at the gender dimension, we see that overall, women have a much harder time than men finding a job related to their preferred careers (Figure 7.12). Close to 60 per cent of men found a job related to the career they would like to pursue in less than a year, compared to only 45 per cent of women. On the other hand, more than one out of five women needed more than two years to find such a job, and another 14 per cent had to look for more than a year; these percentages are substantially higher than those for men (14 and 4 per cent respectively).

Figure 7.12
 How long did it take you to find a job, related to the career you would like to pursue?* (Gender breakdown)



*Only for those who are looking for a job related to a particular career (86% of respondents).

Looking at other aspects of variation, it is worth noting that vocational training graduates find their preferred jobs faster compared to both primary and secondary education, and tertiary education graduates. Approximately 40 per cent of vocational education graduates, who look for a job related to a particular career, report finding such a job in less than three months, compared to 29 per cent of primary and secondary education graduates and 27 per cent of tertiary education graduates. On the other hand, tertiary education graduates report to a lesser extent failure to find a job related to their preferred career (17 per cent vs 27 and 34 per cent for vocational education, and primary and secondary education graduates respectively). Graduates from the fields of Humanities, Social Sciences, Education and Law also face more difficulties in finding their preferred jobs. Almost 30 per cent of these graduates cannot find a job related to the career they would like to pursue, while another 28 per cent report looking for more than two years before finding such a job. On the other hand, Natural Sciences and Health graduates seem to find their preferred jobs faster, with 57 per cent of them reporting doing so in less than a year.

The difficulty of finding a job that meets the aspirations of young people is also demonstrated by the length of time young people remain in unemployment. Close to 60 per cent (58.1) of the respondents that are unemployed report that they have been in unemployment for over a year, while 20.5 per cent of them have been looking for a job for more than two years. Less than one out five (19.7 per cent) report being unemployed for less than six months. Unemployed women report a slightly higher incidence of long-term unemployment (more than a year) than unemployed men (59.7 vs 56.4 per cent respectively), but a substantially higher incidence of unemployment for more than two years (29.0 vs 10.9 per cent), which means that being out of work for a long period of time affects the chances of women finding a job more than those of men. Belonging to different age groups does not seem to produce

a consistent pattern of variation, with the exception of unemployment for more than two years; in this category, older respondents report significantly higher shares compared to younger ones (31.1 per cent for those aged 30-34 compared to 18.2 and 4.3 per cent for those aged 25-29 and 20-24 respectively). Finally, unemployed tertiary education graduates report substantially lower rates of long-term unemployment compared to unemployed vocational, and primary and secondary education graduates -with the latter being in a dire situation (75.8 per cent of the unemployed in this category are long-term unemployed).

The impact of the difficulties that young people face in entering the labour market is significant and seems to feed into their low participation and employment rates documented in previous chapters. We tried to gauge this impact by asking the survey participants about their reaction when they could not find a job. A considerable share of respondents (13 per cent) said that they stopped trying and did nothing, while another 8 per cent left the country to find a job abroad (since these respondents have obviously returned, while many others have not, this percentage should be treated as a minimum threshold for the share of youth that opted to leave the country). Given that prolonged absence from the labour market increases the difficulty of getting a job, and that a large part of migrants is unlikely to return, a substantial part of Greek youth is lost to the Greek labour market. Another 15 per cent of respondents who had a difficult time finding a job, also leave the labour market to return to education, either at home (9 per cent) or abroad (6 per cent). Part of them, particularly from the latter group, may also not return soon (or at all) to the Greek labour market. Finally, it is interesting to note the most common reaction to the difficulty of getting a job, is to accept a position with lower qualifications (57 per cent), which in turn contributes to the phenomenon of skills mismatch.

The age and gender breakdown of the respondents' reactions also yield some interesting findings. Thus, the 30-to-34-year-olds

report the highest share of accepting jobs below their qualifications (59 per cent). The ‘stop trying and doing nothing’ reaction is more common in the 20-24 age group (14 per cent), very likely facilitated by the support of their families and the lack of personal commitments. In this respect, it is interesting to note that the 30-to-34-year-olds are more willing to move to another area of Greece (13 per cent) compared to the younger groups (6 and 5 per cent for the 20-24 and 25-29 respectively). Finally, the age groups 20-24 and 25-29 go back to education more often, either at home or abroad. In terms of gender, an important finding is that the percentage of women reporting that they stopped trying and did nothing is twice as high as that of men (16 vs 8 per cent). Moreover, women accept jobs with lower qualifications more often than men, while men appear more willing to move abroad or to another area in Greece to find a job or to study.

The difficulties that young people face in joining the labour market and the way that they react to them, affect youth’s economic status and their broader life prospects. This is clearly illustrated by the fact that 57 per cent of the respondents say that they are financially supported by their families. While high percentages of positive replies may be expected for the 15-24 age groups, the results for the 25-34-year-olds are disturbing; 54 per cent of the 25-to-29-year-olds and 38 per cent of the 30-to-34-year-olds say that they are still being financially supported by their families.

7.3.2 Principal obstacles

We asked the survey participants to evaluate a list of factors as obstacles when trying to enter the labour market. The respondents were asked to assign a score on a 5-point scale for each factor, where 1 is not considered an obstacle at all and 5 is considered a very significant obstacle. Based on the respondents’ evaluations (Figure 7.13) we categorize the principal obstacles to labour market access

in three main groups: a. the impact of the crises, b. skills mismatch, and c. the lack of support for young labour market entrants.

The ‘state of the economy’ and the ‘lack of job posts during the pandemic’ are rated second and third most important obstacles by respondents, receiving a score above 3 on our scale. Together, they demonstrate the impact that the broader economic conditions have on the labour market, particularly for young people seeking to find a job. We label this category ‘the impact of the crises’, because since 2009, the economic conditions in Greece have been overwhelmingly determined by crises; first the Greek debt crisis, which lasted for the better part of the 2010s, and then the pandemic and the economic crisis it created.

While the impact of the pandemic is explicitly stated, the impact of the previous crisis can be seen through the combination of the respondents’ replies to different questions. Thus, the cross-tabulation of the replies to the question inquiring about the length of time that respondents looked for a job (related to the career they would like to pursue) and to a question about the year that they were able to find such a job provides us with some interesting insights (Figure 7.14).

The data show that more than 80 per cent of the respondents that found a job before 2009, were able to do so in less than a year. For those that found a job between 2010 and 2014, the corresponding share drops to 72.4 per cent and for those who found a job after 2015 it declines even further to 60.5 per cent. At the same time, the share of people who needed more than two years to find a job, increased from below 10 per cent in 2009, to 20.5 and 28.3 per cent for the periods 2010-2014 and post-2015 respectively.

Figure 7.13
Obstacles to labour market access
 (Based on your experience, rate the following factors on a scale from 1 to 5, according to their importance as obstacles for accessing the labour market, 1 not being an obstacle at all and 5 being a very significant obstacle)

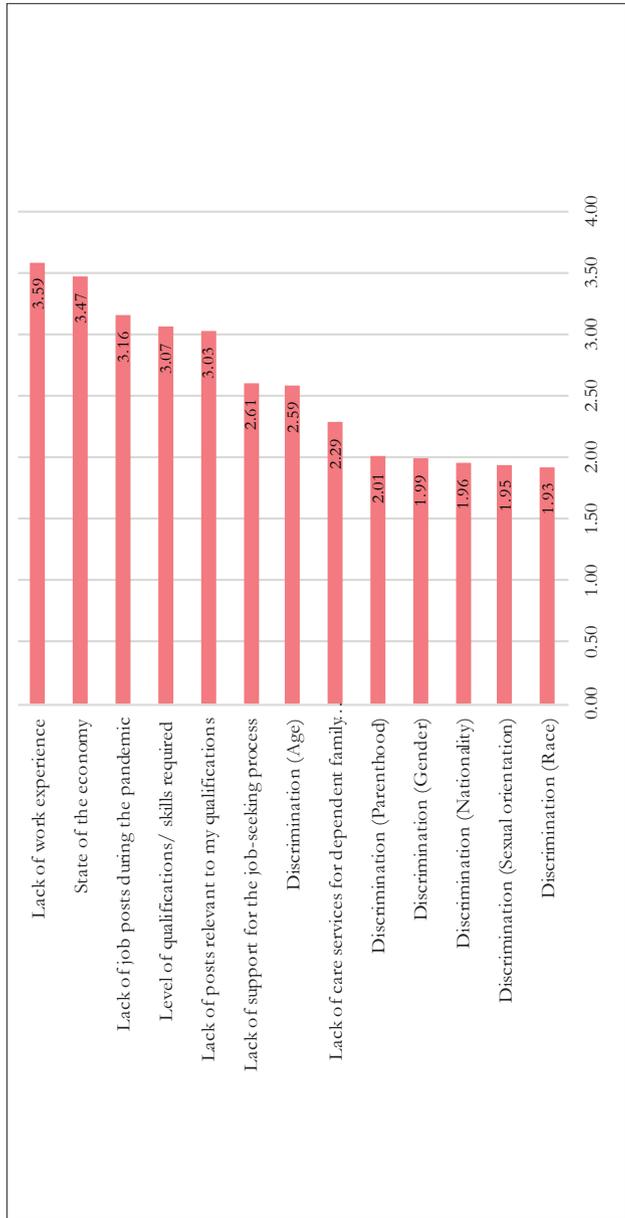
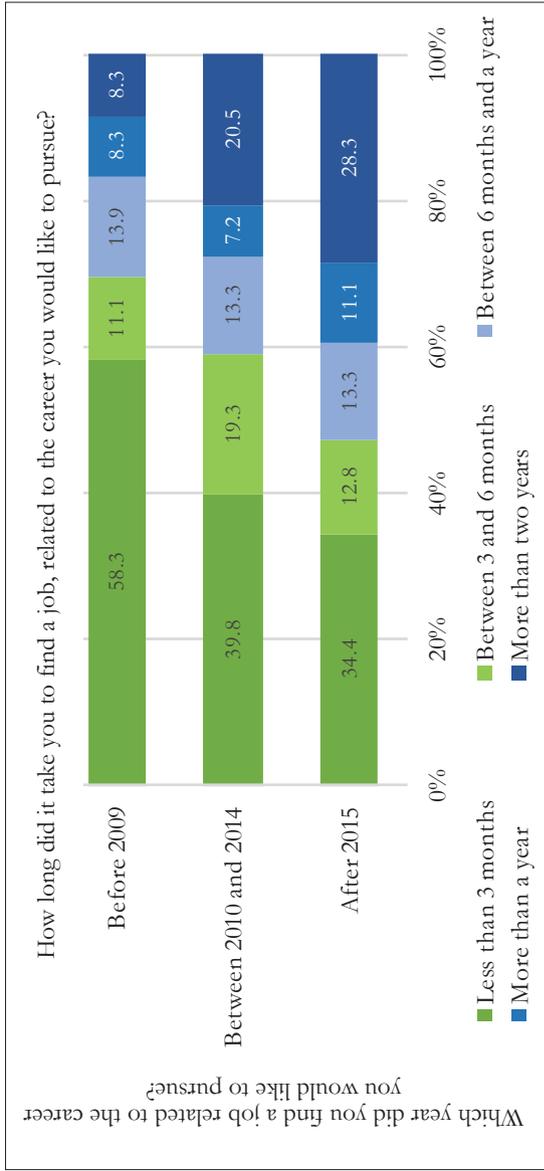


Figure 7.14
The impact of the 2010s crisis

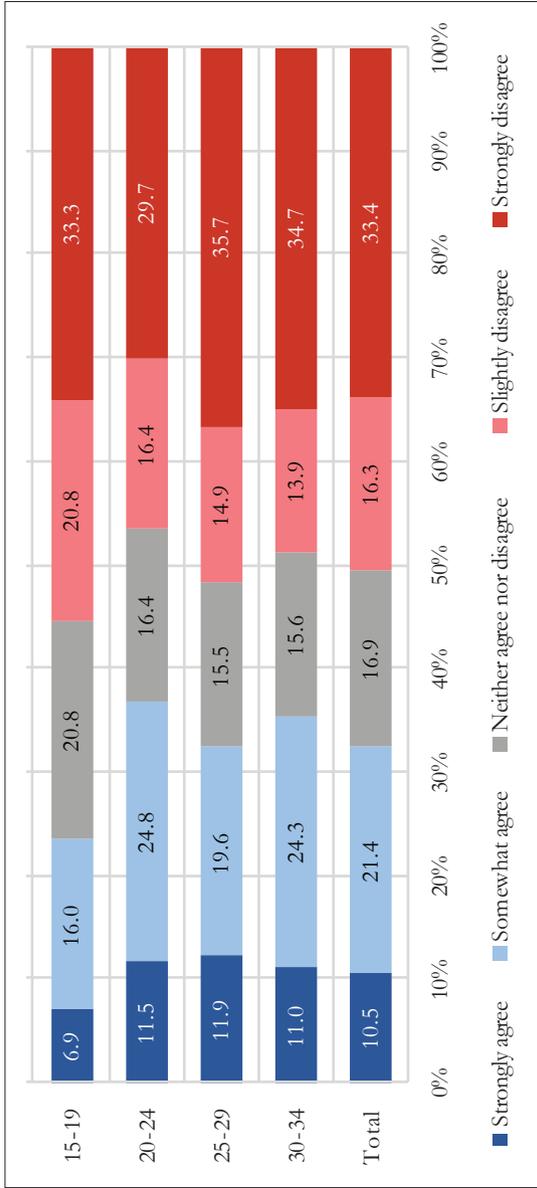


The impact of the crisis is also demonstrated indirectly through the differences in the replies of younger respondents compared to older ones (30-34 years old), many of whom were able to find a job before the crisis. As already mentioned in section 7.3.1, the older age group differs in relation to its first job experience compared to the other age groups. Thus, for example, the age groups 15-24 report to a much larger extent having to work while studying (65.9 per cent) and working in atypical jobs (73.2 per cent), compared to the 30-to-34-year-olds (54.2 and 62.6 per cent respectively). These differences show that the economic conditions since the outbreak of the crisis and throughout the 2010s have been much more difficult for young people; younger cohorts have a greater need to work, even while studying, and their jobs are, for the most part, atypical (part-time, temporary, seasonal).

The second group of obstacles refers to the phenomenon of skills mismatch. Both vertical (overqualification) and horizontal skills mismatch are considered significant obstacles as they are assigned a score higher than 3 in the scale (Figure 7.13). More generally, the findings of the survey demonstrate that skills mismatch is a significant issue for young people in the Greek labour market. We will explore related questions in more depth in the next section of this chapter, where we discuss career advancement and job satisfaction. Here we present the replies to a broader question addressed to all survey participants, which speaks to the importance of skills mismatch as an impediment to labour market access. We asked survey participants whether they thought that the educational system in Greece had provided them with the skills they needed to join the labour market (Figure 7.15).

Fewer than one in three respondents (31.9 per cent) replied positively. Although, as evidenced by the better evaluation of the three older age groups compared to the 15-19 group, people tend to have a more positive assessment of the educational system after they have worked for a few years, the numbers are still very low,

Figure 7.15
Skills mismatch
 (The educational system in Greece provides me with the necessary skills for joining the labour market)



hovering around the one-out-of-three mark. Even if we exclude those who are uncertain, half of the respondents (49.7 per cent) do not believe that the educational system provides them with the skills they need, which clearly demonstrates a failure to connect the educational system to the labour market.

Finally, although our survey deals with the supply side of the labour market (which is to say its questions are addressed to current and potential workers), it also yields findings which are of interest in relation to the demand side of the labour market (i.e., employers), regarding the skills mismatch issue. As noted in the introductory chapter, employers often report skill shortages in the labour market. However, skill shortages may also relate to the terms offered by employers and to the prospects job applicants associate with a particular post. To examine further this aspect of the skills mismatch issue, we included in the survey another set of questions, which investigated the incidence of job offer rejections by the respondents and the reasons for their decision. Almost half of the respondents (46.7 per cent) stated that they had rejected or not considered a job post over the last four years. Given the high level of youth unemployment in Greece, this percentage is surprisingly high and implies that the employment terms offered do not meet the candidates' needs. Indeed, when asked to give the reasons for their decision, low pay and terms of employment (e.g., working hours, conditions of work) topped the list, while relevance to qualifications/skills was also given as a reason by 8.6 per cent of the respondents. Further analysis reveals that a lower percentage of 30-to-34-year-olds have turned down a job offer, while inhabitants in rural areas report the highest incidence of job offer rejections. It is also worth noting that women report 'low pay' and 'geographical distance' more often than men as the reason for rejecting a job offer, while men report 'terms of employment' and 'lack of career prospects' more often than women. Regarding age, 'low pay' is the most important factor for all age

groups, but it is less invoked as a factor for rejecting a job offer by older age groups.

The third category of factors that inhibits the access of young people to the labour market, is what we have termed ‘lack of support’. From the replies shown in Figure 7.12, we see that respondents consider the lack of work experience the most important obstacle in their way towards employment. This relates to two other factors that also appear in the respondents’ evaluation as substantial obstacles, the ‘lack of support for the job seeking process’ and discrimination based on age. Taken as a whole, these replies show that young people are not supported in their transition from education to the labour market; lacking experience due to their age, they are not preferred by employers compared to other age groups (this applies particularly for the younger age groups in our sample, who attribute a higher score to the above-mentioned factors than the 30-to-34-year-olds). Oft-cited weaknesses of the institutional framework of the Greek labour market, mentioned in previous chapters of this study as well, could probably go a long way towards explaining the severity of this obstacle. Thus, for example, the lack of a comprehensive framework of Active Labour Market Policies (ALMPs), and the limited role of VET in the Greek educational system contribute to the lack of opportunities for gaining job experience, for example through internships and other related programmes.

A final note on the issue of discrimination. From Figure 7.13, it is clear that respondents, with the exception of age discrimination, do not consider this as a major obstacle in the labour market. This is somewhat surprising, particularly since in another question, almost two out of three respondents (64.5 per cent) state that they think discrimination is an important issue in the Greek labour market. The discrepancy may be due to various reasons. One possibility is that the respondents think that discrimination is a less important obstacle in accessing the labour market than it is for professional

progress once in employment; however, this interpretation is not borne out by their replies in other questions focusing on career advancement as we'll see in the next section. Therefore, the most likely explanation is that discrimination is under-reported in the question regarding access obstacles. The under-reporting may be because respondents are unwilling to disclose that they have experienced discrimination themselves, or due to the composition of the sample, which, given the methodology employed for its selection,⁶² is very likely to under-represent certain population groups, which are more likely to experience discrimination in the labour market (e.g., immigrants).

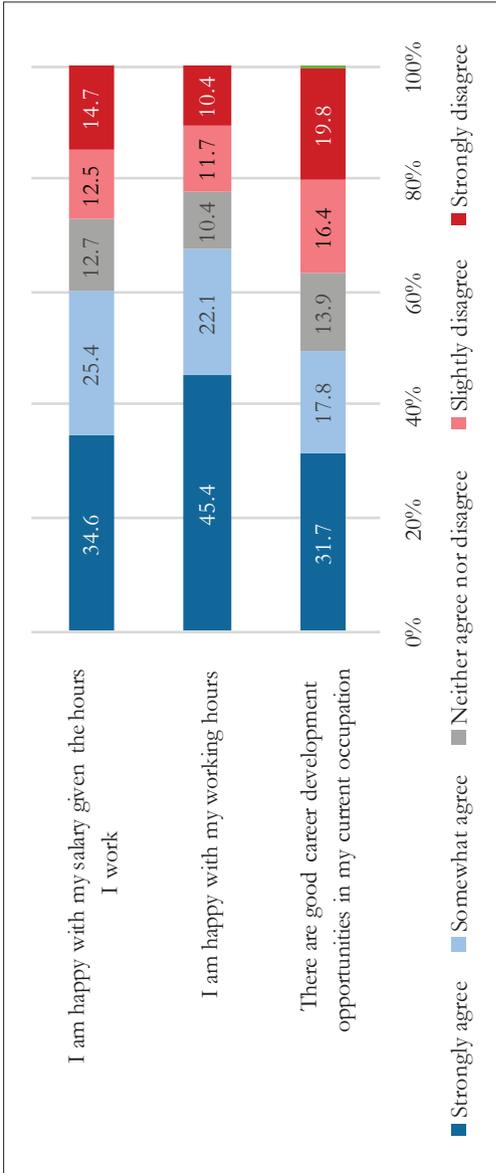
7.4 Job satisfaction and career advancement

The questions reviewed in this section focus on the experience of respondents that have been able to find a job. The aim of the questions is to gauge their satisfaction with their current employment and to document their experiences and views regarding their professional advancement. A first set of questions inquires about job satisfaction (Figure 7.16). The replies show that 60 per cent of the respondents are satisfied with their salary, and two out of three (67.5 per cent) with their working hours. At the same time, only half (49.5 per cent) of them think that the career prospects in their current employment are good.

Examining the responses in more detail, we observe that respondents in the age group 30-34, women, those in atypical employment and those employed in Professional and Scientific Services, appear less satisfied with their salary. On the other hand, respondents from the Aegean islands and Crete and those

⁶² The sample was drawn from official registries and linked with access to a phone line; the survey was conducted through Computer Aided Telephone Interviewing (CATI).

Figure 7.16
Satisfaction with current employment



employed in the public sector appear more satisfied with their pay. In terms of working hours, the youngest age group (15-19) appear more satisfied compared to other age groups; the same is true for public sector employees and for the Economy and Information Technology graduates.

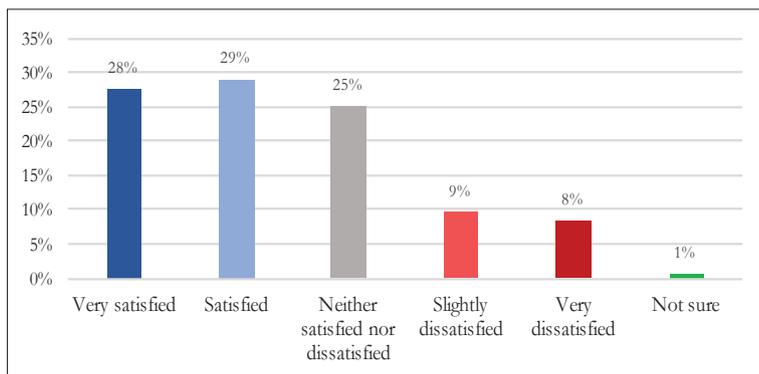
Finally, career opportunities in their current employment appear poorer to the youngest age group (15-19), to primary and secondary education graduates, to Humanities, Education, Social Sciences and Law graduates, to the self-employed, to those who work in the Education and Tourism and Food and Drink Services, and to those in atypical forms of employment.

A second set of questions focused on the evaluation of the respondents' career advancement and the factors that affect it. More specifically, survey participants were asked whether they are satisfied with the progress of their career to-date (Figure 7.17).

Figure 7.17

Satisfaction with career advancement

(Are you satisfied with your career advancement so far?)



More than half of the respondents appear satisfied (57 per cent), while 17 per cent say that they are dissatisfied; one out of four replies that they are neither satisfied nor dissatisfied. Looking

more closely at the results, we see that, as expected, respondents in the 30-34 age group appear more satisfied with their professional progress compared to the 25-to-29-year-olds.⁶³ Also, as expected, full-time employees and employees on indefinite time contracts report higher shares of satisfaction compared to employees working on part-time and fixed-time contracts. It is also interesting to note that almost three out of four self-employed respondents (72 per cent) appear to be satisfied with their professional progress, compared to 62.5 per cent of public sector employees and just over half (51.4 per cent) of the private sector employees. Finally, tertiary education graduates are more satisfied with their professional advancement compared to vocational education, and primary and secondary education graduates, who are the least satisfied (less than 50 per cent). Finally, more than two out of three Economy and Information Technology graduates appear satisfied, while those who studied Humanities, Social Sciences, Education and Law, report the lowest satisfaction rate (52.3 per cent).

What are the reasons for the respondents' dissatisfaction? We asked the survey participants to rate a number of factors on a five-point scale (Figure 7.18). The respondents' replies demonstrate patterns common with those observed in the answers to the barriers to access question. Thus, as was the case with obstacles to labour market access, there is a group of factors that could be labelled 'lack of support'. Here we find the lack of work experience, which was cited as the second most important obstacle for professional advancement. This obstacle can be related, as was the case before, to age discrimination, which is again cited as the most important type of discrimination, and the lack of support, this time not for the job-seeking process, but for people that must take care of dependent family members. The lack of public policy support, more

⁶³ We did not address this question to the younger age groups, since it is unrealistic to talk about a 'career' below the age of 25.

relevant for addressing this type of obstacles, is 'complemented' by the lack of support by employers. At the first and third place of the respondents' ratings, we find factors that relate to the employers' side; more specifically, lack of career development and learning opportunities are considered significant barriers to professional advancement.

Skills mismatch is also reported as a barrier even after entry into the labour market; it is ranked fourth. A related, interesting finding is that lack of interest on the side of respondents is also mentioned as an obstacle of some importance. This is not unexpected given the replies to previous questions on first job experiences, job satisfaction and the reaction to difficulties in finding a job related to the career respondents would like to pursue. It seems that some respondents unsatisfied with their jobs, do not put much effort in progressing in their current employment; this in turn means that some young people find themselves in a vicious cycle where dissatisfaction with their jobs and the consequent lack of effort trap them in an unsatisfactory employment status with little prospects for improvement. In this context, skills mismatch appears to be an important aspect, particularly since employers do not seem to offer adequate learning opportunities to their employees.

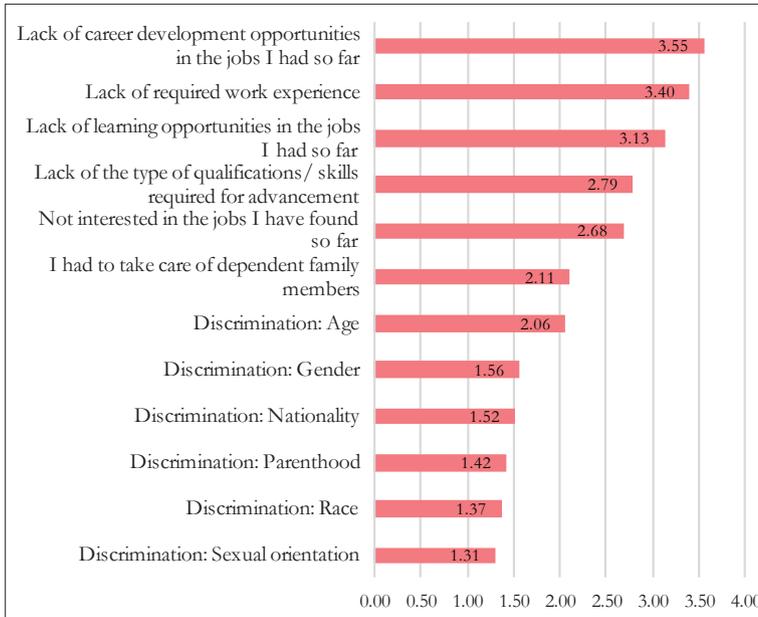
More generally, the survey confirms the existence of an extensive skills mismatch problem. The respondents report a high incidence of overqualified employment (60.6 per cent), and substantial levels of horizontal skills mismatch (less than 50 per cent say that their job is relevant to their educational qualifications) (Figure 7.19).

An analysis of the vertical dimension of skills mismatch (overqualification) based on educational attainment shows that low educational credentials (primary & secondary education) are associated with fewer mismatch perceptions. On the other hand, given their lack of specialized knowledge, the overall percentage of respondents in this category who report a vertical skills mismatch (56.9 per cent) seems surprisingly large. This result could be ex-

Figure 7.18

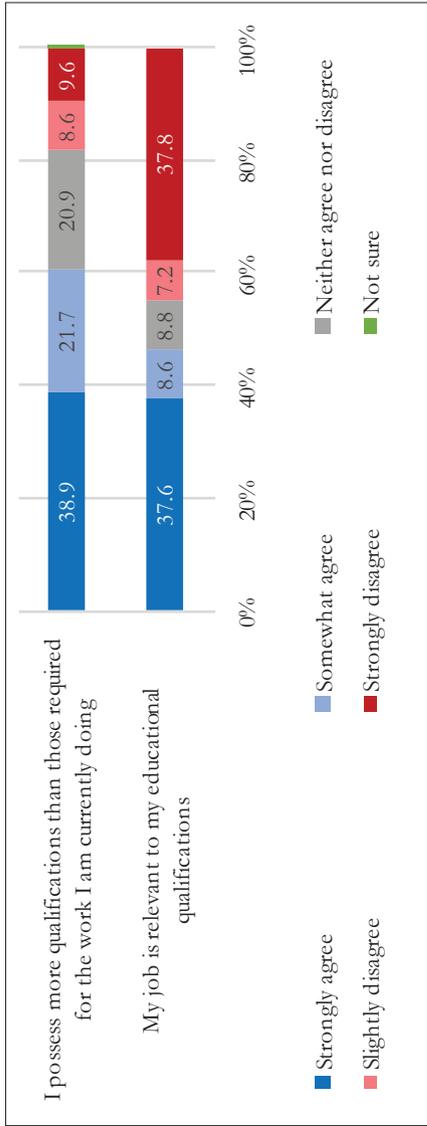
Obstacles to professional advancement

(My career advancement has not been satisfactory so far because...". Rate the following factors on a scale from 1 to 5 according to their importance, 1 not being important at all and 5 being very important)



plained to some degree by the personal bias argument (people overestimate their qualifications), but it could also reflect the fact that the jobs young people secure have such low requirements that even workers with compulsory or secondary-level qualifications feel overqualified. The answers provided by respondents with vocational education and training (VET) are also surprising, as they seem to report a mismatch more often than those with tertiary education qualifications (63.4 per cent vs. 51.3 per cent respectively). Employees in the private economy and those in atypical employment report a higher incidence of overqualification.

Figure 7.19
Vertical and horizontal skills mismatch in employment

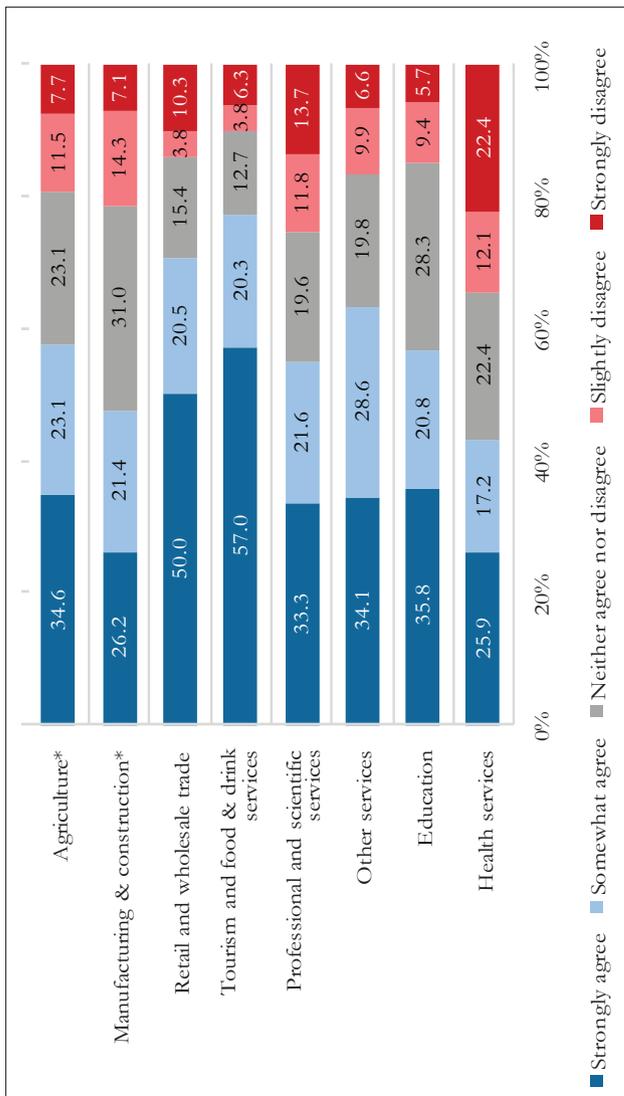


Finally, looking at the sectors where the respondents are employed (Figure 7.20), we see that, as expected, respondents employed in the Retail and Wholesale Trade, and in Tourism and Food and Drink Services, report the highest rate of vertical mismatch, along with Other Services.

In terms of horizontal mismatch, we observe an age-based pattern whereby horizontal skills mismatch is high in the 20-to-24-year-olds (47.2 per cent) and then declines as we move to older age groups. Moreover, notable differences are observed between the big urban areas (Athens, Thessaloniki, and other major cities) and smaller urban areas, with the former exhibiting lower percentages of reported mismatches than the latter. In addition, atypical forms of employment (part-time/seasonal) are associated with a higher incidence of horizontal mismatch (56.9 per cent) than full-time employment (34.1 per cent). The analysis per sector of employment reveals that, once again, respondents employed in Retail and Wholesale Trade, and in Tourism and Food and Drink Services report considerably higher rates of horizontal mismatch compared to all other sectors (66.6 per cent and 58.5 per cent respectively). Disaggregation in terms of educational attainment (Figure 7.21),⁶⁴ shows that, as with the vertical mismatch, vocational training graduates report a substantially higher incidence of horizontal mismatch compared to tertiary education graduates (46.4 per cent vs 35.1 per cent respectively). Given their specialized training, this finding is rather surprising and points to a mismatch between the curricula of professional training programmes in Greece (which are developed with little input from the employers' side) and the needs of the economy.

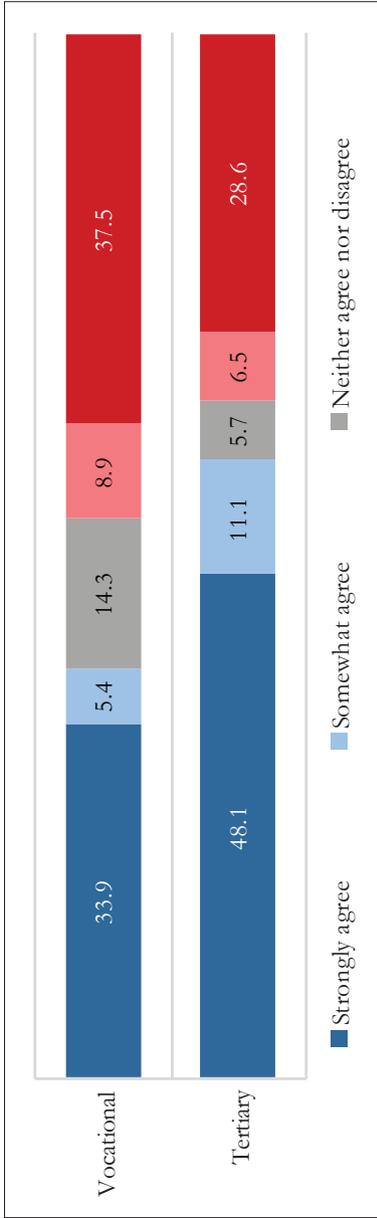
⁶⁴ The data presented refer only to vocational and tertiary education graduates, as primary and secondary education graduates do not have a field specialization.

Figure 7.20
Overqualification by sector of employment
 (I possess more qualifications than those required for the work I am currently doing)



*Small sample

Figure 7.21
Horizontal skills mismatch by educational attainment



Finally, to obtain the respondents' overall impressions based on their experience to date, we asked them whether they would choose a different field of study if they could start all over again. More than one in three respondents (34.7 per cent) answered positively. It is interesting to note that for the older age group (30-34), who have several years of work experience, the percentage of positive answers (38.5 per cent) is higher than the overall average. Of course, this answer is not necessarily the result of a negative mismatch experience; it could also indicate a re-evaluation based on knowledge acquired about more promising professional avenues than the one chosen. Still, this finding, combined with the fact that roughly one in three respondents in the 15-24 age groups, who do not yet have extensive work experience, also answer positively, implies a problem with the way young people make their educational and career choices and it indicates an obvious failure on the part of the current educational/professional orientation services.

7.5 Gender discrimination

As noted in the introduction, the research carried out in this project puts an emphasis on the gender dimension of youth labour market integration. In the previous sections, gender-based analysis was performed for all aspects of youth participation in the labour market and the results were reported whenever the analysis showed that young women's integration in the labour market differed to that of young men. In this section we examine the role of gender more directly by looking at gender discrimination in the labour market. We asked the survey participants to tell us whether they have experienced gender discrimination in the workplace (Figure 7.22). As was the case with the respondents' replies regarding the obstacles in labour market entry and career advancement, gender discrimination while present, does not seem to be widespread, as only 8.2 per cent of the respondents answered in the affirmative.

Figure 7.22
Gender discrimination in the workplace
 (Have you experienced gender discrimination in the workplace? Discrimination is defined here as the unequal or disadvantageous treatment of workers with similar job descriptions and who perform similar tasks, based on their gender)



Having said that, when we compare these results with the replies of groups of respondents that are not employed (e.g., people that have worked in the past but do not work anymore, or the unemployed), we see that positive replies increase substantially (more than double for the former group (18.7 per cent), and triple for the latter group (24.6 per cent)).⁶⁵ One interpretation for this large difference is that the respondents who are currently employed may be afraid to report discrimination in the survey. Another explanation could be that the employment status, e.g., being unemployed or economically inactive, is causally related to gender discrimination, as people who have experienced it may be unwilling to consider jobs where they feel they are likely to experience discrimination again, or may simply become disappointed and exit the labour market.

As expected, the share of young women reporting gender discrimination is much higher than that of young men (11.3 vs 5.3 per cent). This is also the case for respondents who are not currently employed (but have worked in the past) and for the unemployed. For the former group the share of women reporting gender discrimination is 22.1 per cent (vs 15.5 per cent for men), and for the latter 33.3 per cent (vs 15.6 per cent for men). These findings indicate that the incidence of discriminatory behaviour is non-negligible. Also, there seems to be little doubt that women experience gender discrimination far more often than men. More research is needed to establish a potential causal relationship between the employment status and gender discrimination. Finally, looking at other aspects of our sample, we see that a higher share of people in the 25-29 age group, of tertiary education graduates and of employees in the private economy, report gender discrimination.

⁶⁵ It must be noted that the number of people in these groups is low, and that they do not constitute representative samples of their respective populations. Accordingly, more research is needed to provide more robust support for these findings.

Next, we inquired the survey participants about the type of gender discrimination they have experienced (Figure 7.23). The results show that gender discrimination is primarily expressed as payment discrimination, as the first and second most common replies refer to the lack of pay increases and the differential payment between sexes for similar work. A second category of discriminatory practices, comprising the next three most common replies, has to do with career advancement. Learning opportunities, important assignments and promotions are essential for professional progress; the respondents that report gender discrimination feel that their career advancement is undermined as they are denied these opportunities. Finally, one out of three respondents that have experienced discrimination report gender-based harassment, while one out of five believe that having dependent children has adversely affected their professional progress.

Unfortunately, due to the low number of participants reporting gender discrimination, it is not possible to analyse these findings on the basis of gender. However, there is another question that can help us understand the different levels of discrimination experienced by men and women in the workplace. Figure 7.24 presents a gender-based analysis of the replies to the question on the career advancement obstacles reviewed before in section 7.4. From the replies, it is evident that young women are more susceptible to discrimination, as they assign a higher score to all types of discrimination. Effectively, this means that women experience discrimination more intensely than men in all other respects too (e.g., race, nationality, parenthood, etc.).

Figure 7.23
Types of gender discrimination

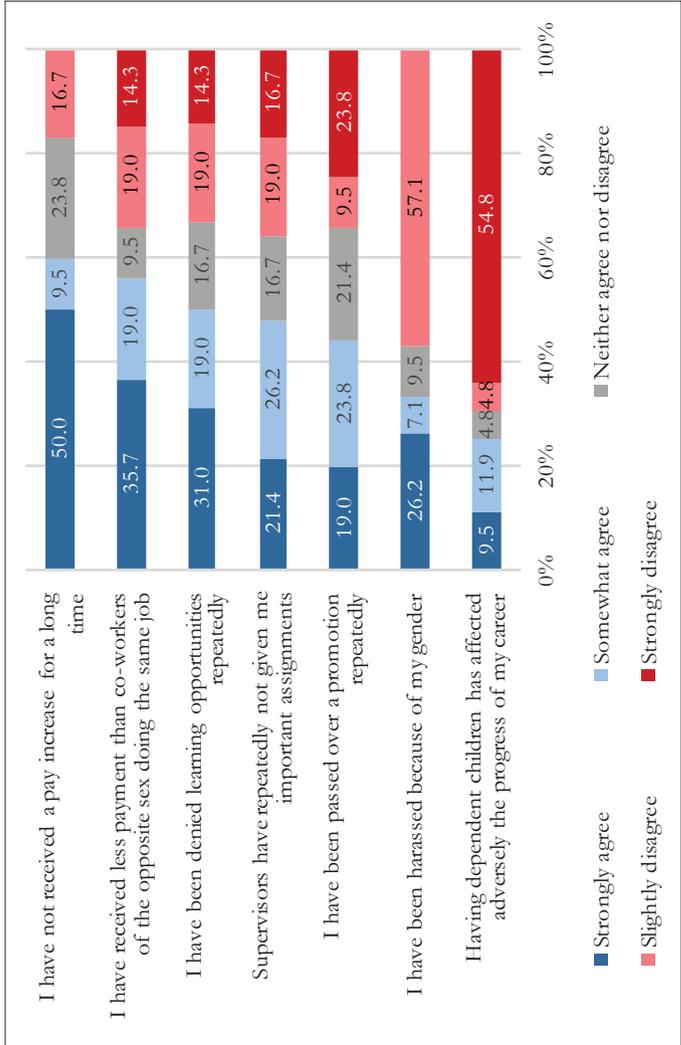
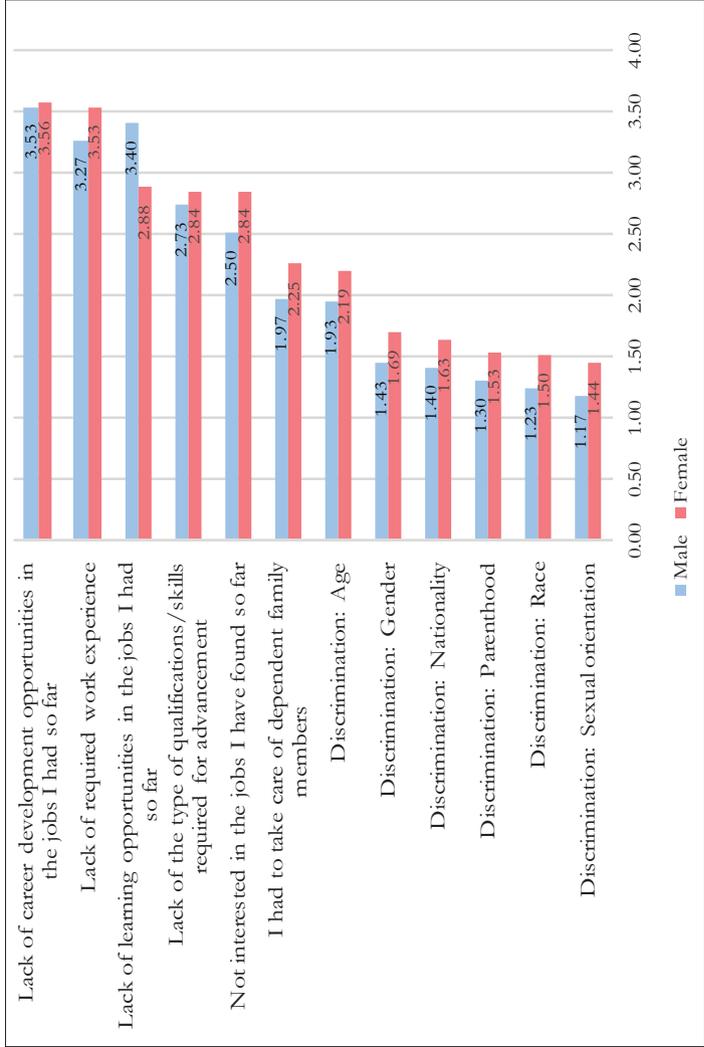


Figure 7.24
Career advancement obstacles by gender



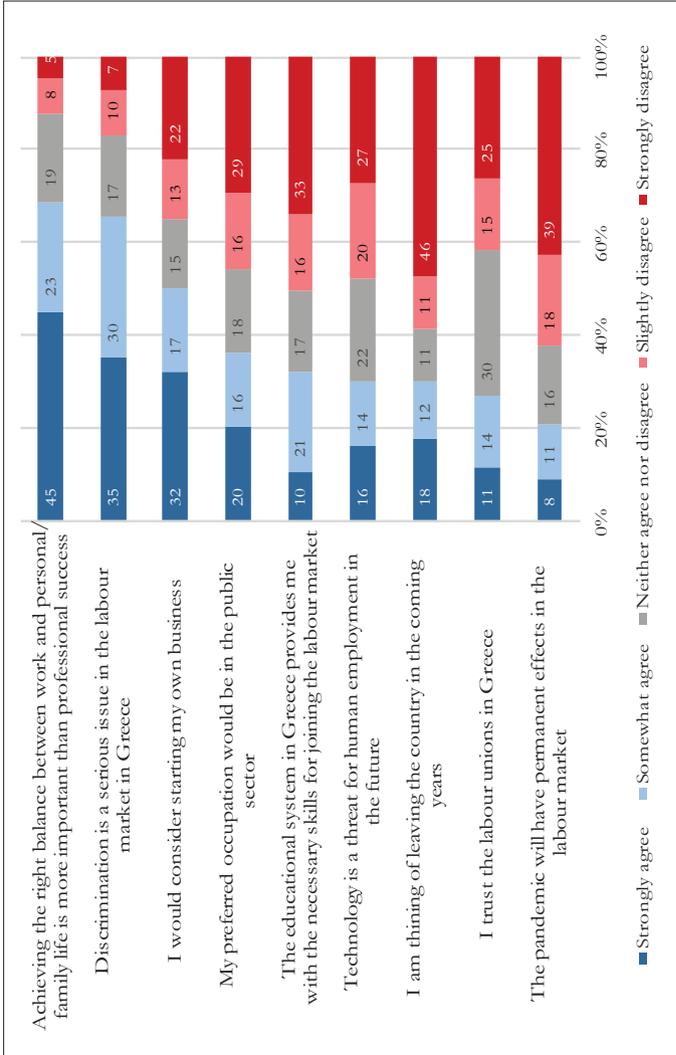
7.6 Attitudes about the world of work

In a final section of our survey, we posed a set of broader questions to the survey participants, about their attitudes regarding the Greek labour market and their place in it (Figure 7.25).⁶⁶ Dividing the questions in thematic categories, we can analyse the replies in a more coherent manner. More specifically, the questions could be grouped into three broad categories: a. the state of the labour market, b. the respondents' place in the labour market, and c. structural trends. The first group comprises questions on discrimination, the link between the educational system and the labour market, and the trade unions. The overall picture is not encouraging; almost two out of three respondents (65 per cent) believe that discrimination is a serious issue, less than one in three respondents (31 per cent) believe that the educational system provides them with the necessary skills to enter the labour market and only one out of four respondents trust the labour unions. The replies in the discrimination and educational aspects have already been discussed in previous sections. Here, we delve a little deeper into the attitudes towards the trade unions.

The data show that men, employees in the private sector and those on fixed-time contracts trust more the labour unions, as do those who work in the Manufacturing and Construction sectors, and in the Tourism and Food and Drink Services sector. Still, it has to be noted that with the exception of the manufacturing and construction sectors mentioned above, in all other analyses (e.g., by gender, educational attainment, type of employment, level of urbanization, etc.) the share of respondents stating that they trust trade unions is never higher than the one out of three. This shows a widespread mistrust for trade unions among young people in Greece irrespective of their socio-economic features or the type of their employment.

⁶⁶ The section also includes a few questions about the respondents' experiences, which have already been presented in other parts of this chapter.

Figure 7.25
General attitudes on the labour market



The second category of questions investigates the views and aspirations of respondents on a personal level. There are a number of interesting findings that should be mentioned here. First, it is clear that for young people the balance between work and family life is very important; 68 per cent think it is more important than professional success, with only 13 per cent disagreeing with this statement. When asked about their preferred or potential careers we see that almost half (49 per cent) would consider starting their own business, while roughly one out of three (36 per cent) would prefer working in the public sector. These preferences display both age and gender-based patterns; respondents in the older age group (30-34 years old) are more inclined to work in the public sector and less inclined to start their own business compared to respondents in the younger age groups, while women prefer working in the public sector and are less inclined in starting their own business than men. It is also interesting to note that tertiary education graduates appear less willing to start their own business compared to graduates of other educational levels. Finally, almost one out of three respondents (30 per cent) state that they are thinking of leaving the country in the coming years, while another 13 per cent is undecided. Again here, there is a clear age-based pattern emerging, as the 30-to-34-year-olds appear far less willing to leave the country (only 15.6 per cent consider it) compared to other age groups; for the younger groups (15-24) the share of respondents thinking of leaving the country is almost 40 per cent. Also, a larger share of men and those in atypical forms of employment consider leaving the country, while it is interesting to note, that contrary to the profile of those that left the country during the crisis, now, primary and secondary education graduates appear more willing to leave the country compared to tertiary education graduates (33 vs 25.9 per cent respectively).

The third category of questions inquired the respondents' views concerning the pandemic and the role of technology in relation

to human employment. The latter has come to the fore of public discourse in view of the developments that took place during the pandemic, while the digital transition is a widely acknowledged public policy objective both for the Greek government and the EU. The respondents seem rather sanguine in view of these challenges. Less than one out of five (19 per cent) think that the pandemic will have permanent effects on the labour market, while less than one in three think that technology will be a threat for human employment in the future. Those that appear worried to a greater extent about the role of technology are those in atypical forms of employment, those employed in health services and by a large margin, compared to the other educational categories, the vocational education graduates (46.4 per cent vs 29.2 and 24 per cent for primary and secondary education, and tertiary education graduates respectively). Women and vocational education graduates appear more worried about the long-term effects of the pandemic, while public sector employees and those employed in the Economy and Information Technology sectors do not seem to worry. Finally, it is interesting to note that only 7.6 per cent of those employed in education believe that the pandemic will have permanent effects on the labour market, despite the fact that this sector has been heavily affected by the pandemic in ways that are widely acknowledged to have more permanent effects.

7.7 Summary and conclusions

In this chapter, we presented the principal findings of a youth survey, whose main objective was to explore the factors that inhibit youth's integration in the labour market, with an emphasis on gender related obstacles. The survey has produced interesting findings, some of which provide further support for things that we already knew or suspected, while others provide insights that need to be further researched.

The survey's first contribution is the documentation of the extent of the difficulties that young people encounter in their effort to join the labour market. To this end, we distinguished first job experiences from the respondents' efforts to find a job related to the career they would like to pursue. Given that, as shown by the respondents' replies, first jobs tend to be temporary, atypical and unrelated to their studies, what is more important is to look at the difficulties young people face in trying to get a job that leads to a path of professional development. The replies show that only half of the respondents were able to find such a job in less than a year, while more than one out of five have not been able to find such a job at all. The result is that young people exit the labour market or accept jobs which require lower qualifications than those that they possess. Those that continue their job search also face great difficulties; close to 60 per cent of the unemployed respondents are long term unemployed.

These findings demonstrate the extent of underutilization of youth's human capital. This represents a significant loss for the economy and an impediment for sustainable growth, but it is also detrimental for the youth's own prosperity and prospects. This is illustrated by the degree of the respondents' financial dependence on their families, which continues to be alarmingly high even in the older age groups; more than half of the 25-to-29-year-olds and close to 40 per cent of the 30-to-34-year-olds report being financially supported by their families.

Why do young people face such difficulties integrating into the world of work? The respondents' replies showed that these difficulties are due to: a. the state of the economy, b. the incongruity between the educational qualifications and skills of the youth and those required by the economy, c. the lack of support for the transition and integration into the labour market and d. factors related to gender.

The continuous crises have led to a deterioration in the labour market conditions, as documented by the survey; respondents tend to work at younger ages than was the case before. Their jobs are more atypical and unrelated to their studies and have to look for longer to find a job related to their preferred careers, compared to older respondents, many of whom found their job before the crisis. The adverse economic conditions may also help explain why respondents employed in the private economy report lower job and career advancement satisfaction rates.

Another explanation for this finding, could be the incongruity between the educational qualifications and skills of the youth and those required by the economy; respondents working in the private economy report substantially higher rates of skills mismatch. More generally, the respondents' replies show that skills mismatch is widespread in both its vertical and horizontal dimensions. The sources of the problem are to be found in both sides of the market. On the supply side, it appears that there is a systemic failure to inform youth about different occupations and career prospects; as a result, respondents often prefer studies in fields which are shown to have poor professional prospects compared to other specializations (e.g., Humanities, Social Sciences, Education and Law). Rather surprisingly, vocational education graduates also report high rates of skills mismatch which demonstrates the poor design of VET programmes and their failure to address actual market needs.

On the other hand, despite the difficulties they face in finding a job, almost half of the respondents have rejected job offers in recent years, mainly due to low pay and unsatisfactory terms of employment. This finding, combined with the dissatisfaction that employed respondents feel with the learning and career development opportunities offered to them by their employers, demonstrate that part of the blame for the skill shortages for which employers often complain, should be attributed to them. This of course is not a simple problem of 'bad intentions'; the sources of the employers'

behaviour are primarily due to the structural features of Greek businesses, such as their small size, their introversion and their specialization in low value-added activities. Lack of scale, investment and innovation, limit their growth potential and undermine their ability to provide better salaries, terms of employment and learning opportunities.

The survey findings illustrate the lack of support both for entering and remaining in the labour market. The lack of a counselling mechanism for students' educational and professional choices before they leave school becomes evident by the respondents' replies on the skills mismatch issue discussed above, but also in their highly negative overall appraisal of the preparation they receive from the educational system for their entry into the labour market. In addition, the survey participants also report lack of support for the job-seeking process. The combination of poor educational and professional choices and the lack of experience, leave the young with the impression that they are being discriminated against, due to their age, and contributes to the problems of prolonged unemployment and labour market exit. It also contributes to the acceptance of jobs with lower qualifications or unrelated to their studies, which in turn leads some of them to a vicious cycle of low job satisfaction, lack of effort and unsatisfactory professional progress. The lack of support for dealing with dependent family members once in employment, also exacerbates feelings of dissatisfaction with one's career advancement. These problems show that young people in Greece not only face obstacles in entering the labour market, but also in their effort to build a successful career path, once employed.

Young women experience both types of problems more intensely. Before the age of 25, our survey participants do not report substantial gender-based differences in terms of their employment status. However, after the age of 25 things seem to change. Women tend to complete their studies and join the labour force sooner

than men. As a result, they report a higher employment rate, but also experience a higher unemployment rate than men. After the age of 30, things become more difficult, as the share of employed women drops well below that of men, while the share of unemployed women continues to be higher than that of men. Also, after the age of 30, 7 per cent of our female respondents report exiting the labour market. Given that these women do not participate in education either, it is likely that this is not a temporary exit, but a more permanent one induced by disappointment, new family commitments, or a combination of both. Unfortunately, we cannot delve deeper into this issue, as the reasons for this decision are not examined in the survey.

When employed, women are more likely to work part-time than men and are less satisfied than men with the compensation they receive. In-work problems become more evident when we examine the issue of discrimination; unsurprisingly, a larger share of employed female respondents report having experienced gender discrimination than men. Both the share of women reporting discrimination and the difference with men become substantially larger when we examine women currently out of employment, or unemployed. Although more research is needed in this respect, these tentative findings imply that either employed female respondents understate the discrimination they face, or that discrimination leads women out of employment for longer periods of time or even permanently. Another very interesting finding is that employed women rate all types of discrimination as more important obstacles to career advancement than men. If this is an indication that women experience more intensely all types of discrimination, the implication is that gender functions as a sort of 'filter' for all other types of discrimination, leaving women overall more exposed to discriminatory behaviour.

Overall, the survey paints a grim picture of the experience of young people in the Greek labour market. Under these conditions,

for a large part of Greece's youth, attaining their overwhelming priority, work-family life balance, seems almost impossible. It is therefore not surprising to find that almost one of three are thinking of leaving the country in the coming years. Combined with the youth already lost during the previous decade that would inflict a serious blow to the country's efforts to revive its economy.

PART IV

**INTEGRATING YOUNG PEOPLE
AND WOMEN IN THE LABOUR MARKET:
THE NORDIC COUNTRIES' EXPERIENCE**



THE SCANDINAVIAN EXPERIENCE OF INTEGRATING WOMEN AND THE YOUNG INTO THE LABOUR MARKET

Anne Hege Strand and Ragnhild Steen Jensen



8.1 Introduction

The three Scandinavian countries, Denmark, Norway and Sweden,⁶⁷ are frequently held as “model societies” with respect to important social policy areas like gender equality and labour market integration. This part of Northern Europe has attracted positive attention from the rest of the world because they have demonstrated good results in terms of growth, employment, competitiveness, gender equality, living conditions and egalitarianism, compared to other countries. The ability to combine economic efficiency and equality has elicited particular interest. Several factors explain the success achieved by the so-called Nordic model. Institutional mechanisms such as the welfare and educational systems, collective bargaining institutions and level-headed economic policymaking are underpinned by trust, social capital and social investment. Furthermore, favourable outcomes, like rising prosperity, high employment and low inequality cannot be understood without taking the close relationship between economic, labour and social policy into account (Dølvik, Fløtten, Hippe & Jordfald 2014).

⁶⁷ Scandinavia consists of the three countries Denmark, Norway and Sweden. To the Nordic countries belong in addition Finland, Iceland and Greenland, as well as the Faroe Islands and Åland.

In this report, we will look at two specific aspects of the Scandinavian countries, namely the integration of women and the integration of young people into the labour market. We will both present statistics that illustrate the labour market situation of women and young people, and describe welfare policies, labour policies and educational policies that help facilitate the labour market integration.

8.2 The Nordic model

The Nordic countries share several features, and this has given rise to the concept of “the Nordic model”. Extensive welfare states, small open economies and an organised working life are three key characteristics. According to Dølvik (2013), the Nordic model rests on three interdependent pillars. First, a macroeconomic policy prioritising high employment in combination with low inflation. This combination has been important for being able to have a functioning export industry. Second, the labour market is regulated by a tripartite agreement and collective agreements. The cooperation between local and national authorities, employer organisations and trade unions ensures that different interests are heard when it comes to labour policies. This collaboration has, among other things, facilitated a wage policy characterised by central negotiations and where the different parties take into account the macroeconomic situation of the country. Third, a tax-financed welfare system has had as its aim the generating of income and health security for the population, across the life course. Equality and equal opportunities for everyone, independent of socio-economic background, has been a key element. This is achieved through a universal social welfare state providing basic income security as well as publicly produced free or state-subsidised welfare and health services. An important part of the Nordic model is a family policy supporting dual-earner families and a high degree of gender

equality through a system of state-financed kindergartens and free education. At the same time, the social insurance system is based on a so-called “work-line policy”, where the economic foundation of the model rests on high employment levels and on tax income, generated mainly through the full employment strategy. Keeping a high share of the population in employment is important for generating the revenue needed to uphold a generous social insurance system (Dølvik 2013).

8.3 The content of the chapter

In this chapter, we look at labour market integration in Scandinavian countries, with a specific focus on women and young people. High employment levels are important to secure future welfare state sustainability and constitute a key policy aim in all the Scandinavian countries. To reach this goal employment policies aim to integrate all groups into the labour market, including groups that in one way or another struggle to get a foothold in the labour market. Before we turn to the two groups of particular interest to us, we take a look at some overall labour market features of Scandinavian countries and present measures for participation and non-participation in employment in section 2. We also briefly ask how the Covid-19 situation may have influenced employment levels in Scandinavia.

In a Scandinavian context, achieving gender equality has been an overarching societal project for several decades. This political ambition extends into several areas of social life; not just the labour market, but also a balance in gender roles in the family arena. In section 3, we present statistics illustrating the situation of women in the labour markets.

The policy goal of gender equality is a precondition for reaching other societal goals. Without gender equality it would for instance be difficult to succeed with the target of full employment,

which in turn supports welfare state security. In section 4, we ask: What are the family and gender equality policies that support positive outcomes for the labour market integration of women in Scandinavia? We look at gender equality legislation as well as rights and services for working parents, such as parental leave schemes in relation to childbirth, affordable day-care, and the right to absence from work when children are sick. We also point out some of the challenges remaining in terms of gender equality in Scandinavian labour markets: part-time work, a gender-divided labour market, and fewer women in chief positions.

The interest in the labour market integration of young people is linked to the general goal of full employment which is very important in the Nordics. As noted above, the Nordic model is based on a so-called “work-line policy”, supporting the labour market integration of all persons in the adult working-age population. Researchers have found that work inclusion constitutes a strong foundation in Scandinavian countries, resting on the normative idea that self-maintenance through work is good for the individual, as well as the society as a whole (Terum & Hatland 2014). Similarly, Scandinavia has also been labelled an “active society”, where the vision is a socially inclusive society where everyone participates in the labour market irrespective of gender, age, ethnic origin, health, qualifications or family responsibilities. This idea of an inclusive society thus rests on the idea that every citizen is able to materialise their own potential capabilities through labour market participation. Activation is thus one of the key policies towards achieving this aim (Kvist, Pedersen & Koehler 2008).

A key pillar in achieving high activation in the population is a well-functioning education system. In section 5, we look at the structure of the education system in Scandinavia and at educational attainment. Despite a well-functioning education system and free education, a considerable share of young people in Scandinavian countries struggle to enter the labour market or to get a permanent

foothold in the world of work. Labour market policies in Scandinavian countries have thus been concerned with applying additional strategies in order to reach the societal goal of full labour market participation. Through a system of active labour market policies (ALMP) or activation policies, a series of services and labour market measures target people outside work. ALMPs are not one fixed measure but rather a package of different initiatives aimed at reducing welfare dependency and increasing employment rates among the population. In section 6, we first ask how well young adult people are integrated into the labour market in Scandinavian countries. We look at employment, unemployment and NEET rates for young people. Then we present activation policies targeted towards young people. We also comment on some of the challenges remaining for young persons, in particularly improving labour market participation among young school dropouts, youths with immigrant backgrounds and, in Norway in particular, reducing welfare dependency among the young population.

8.4 The labour market in the Scandinavian countries

In this section, we will present statistics on the labour market situation in the Scandinavian countries. We present measures of employment and unemployment. In addition, we briefly comment on the Covid-19 situation and on how this may have influenced labour markets in Scandinavia.

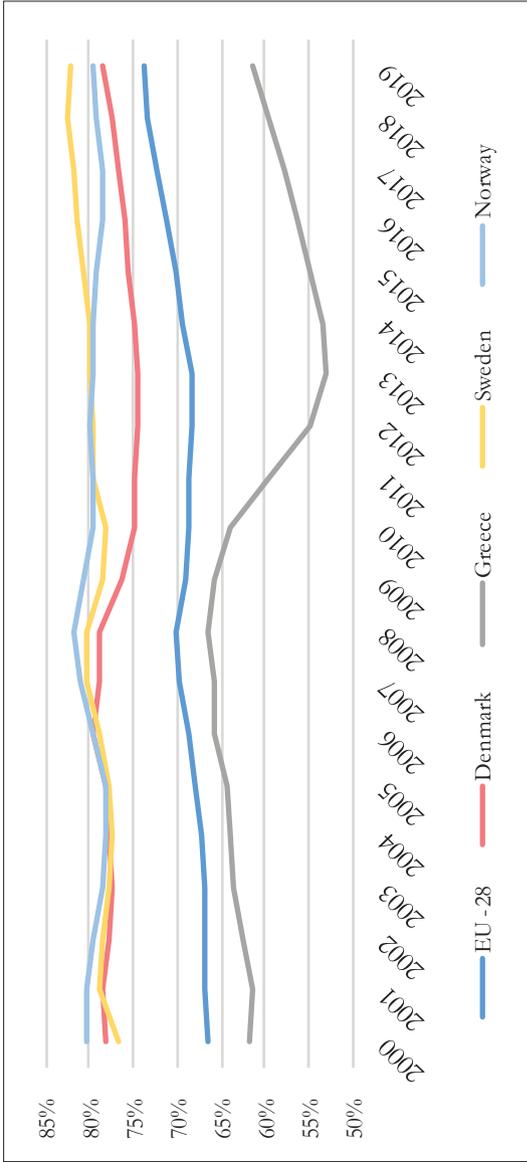
8.4.1 Employment

A prerequisite of the Nordic model is full labour market participation in the adult population. Work enables people to support themselves financially, high employment rates counteract disparities in living standards, and the taxes paid are crucial to safeguarding the welfare state's finances.

Scandinavian labour force participation is among the highest in the world. Overall employment rates are well above the EU28-average and have remained rather stable for the last two decades. The employment rates shown below (Figure 8.1) are from the period 2000–2019 and hence reflect the pre-corona situation in the labour market. Fluctuations are moderate in this period, and it is obvious that the financial crisis in 2008 hit the Greek labour market much harder than the Scandinavian labour markets.

Sweden has one of the highest employment rates in Europe, measured at 82.1 percent in 2019. Only Iceland and Switzerland show higher rates. Norway had an employment rate of 79.5 percent in 2019 and Denmark 78.3 percent. In comparison, the EU-28 average was 73.9 percent. At the lower end in Europe is, for example, Greece, with an employment rate at 61.2 percent in 2019, illustrating that the Greek labour market has not yet recovered fully after the financial crisis.

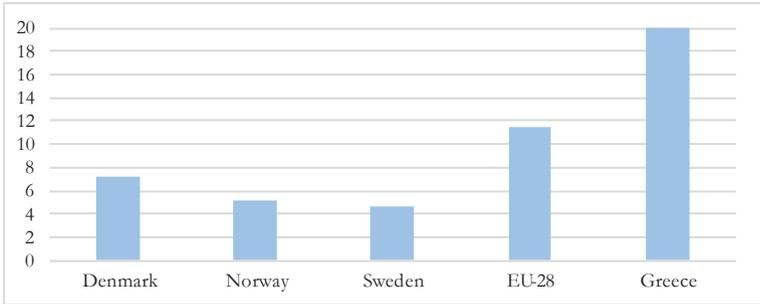
Figure 8.1
Employment rate by country, 20–64 years, 2000–2019



Source: Eurostat, Labour Force Survey.

An important reason for the high employment levels in Scandinavia is high female labour market participation. Sweden has the lowest gender gap in employment, measured at 4.7 percent for 20–64-year-olds. In Sweden, there are 95 women in employment for every 100 men in employment. In comparison, this ratio for the EU-28 population is 88 employed women per 100 employed men and for Greece 80 employed women per 100 employed men (Figure 8.2).

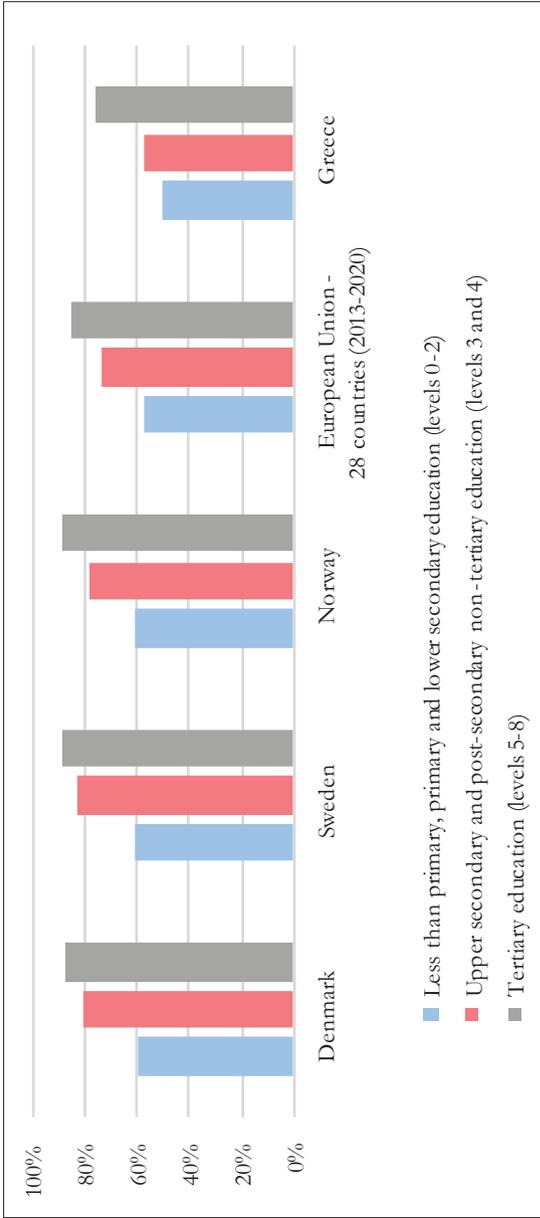
Figure 8.2
Gender differences (percentage points) in employment rates by county, 20–64 years, 2019



Source: Eurostat, Labour Force Survey.

Employment rates vary considerably by educational level. People with a high level of education have an employment rate close to 90 percent. For those with the lowest educational credentials, people who have not completed upper secondary education, employment levels are at about 60 percent in Scandinavia – this is just above the EU-28 average at 56.7 percent.

Figure 8.3
Employment rates by country and educational level, 20-64 years, 2019



Source: Eurostat, Labour Force Survey.

Educational levels among the Scandinavian population are relatively high and have increased over the past few decades. This supports the high employment levels. Well over 80 percent of the adult population (25–64 years) has at least completed upper secondary education, and around a third of the population has completed higher education of at least three years.⁶⁸ Still, the people with low educational credentials represent a group that is more difficult to integrate into the labour market. As we shall see later in the report, young people with low education are a group of particular concern in this respect.

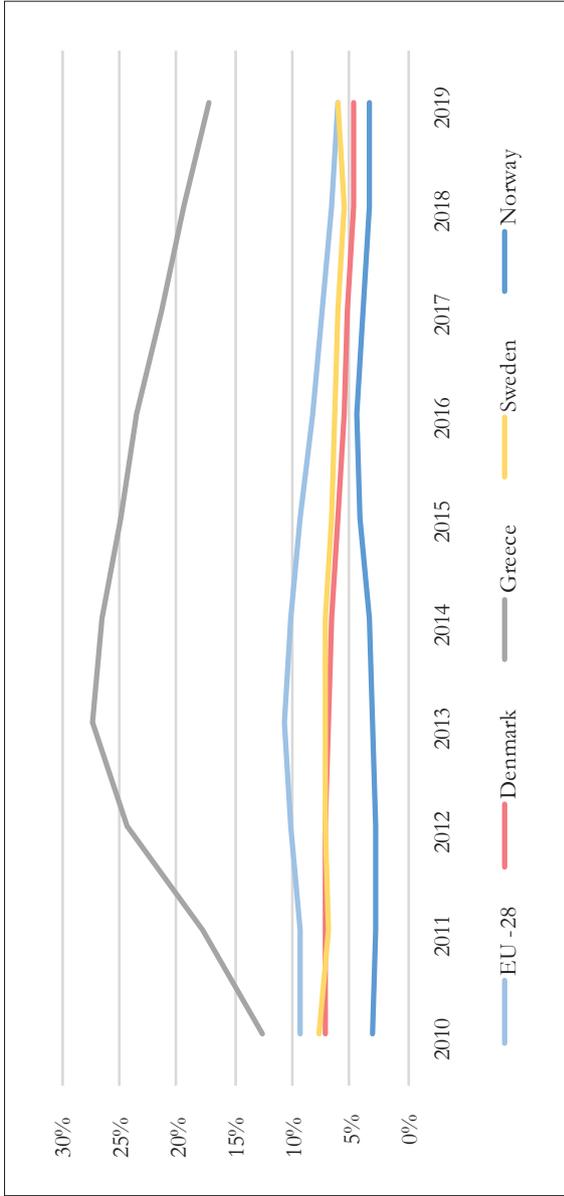
8.4.2 Unemployment

Unemployment rates tend to reflect the larger macroeconomic situation of a country. Over the past decade there has been some fluctuation in unemployment rates, yet the overall trend in Scandinavia has been a decrease in unemployment. In Denmark, unemployment pre-corona declined by around 3 percentage points and in Sweden 2 percentage points between 2010 and 2019. In Norway, unemployment rates have increased by half a percentage point in the same period.

The economic downturn commencing in 2008 led to a temporary increase in unemployment in both Denmark and Sweden, as was the case in the rest of Europe. Norway was not affected in the same way by this particular economic crisis. Instead, Norway experienced rising unemployment levels in relation to the global recession in the oil market in 2014-16. This illustrates differences in economic vulnerabilities between the Scandinavian countries where, in particular, the Norwegian economy is vulnerable to economic changes in the global oil markets.

⁶⁸ Source: LFS and statista <https://www.statista.com>

Figure 8.4
Unemployment rate by country, age group 20–64 years, 2010–2019



Source: Eurostat, Labour Force Survey.

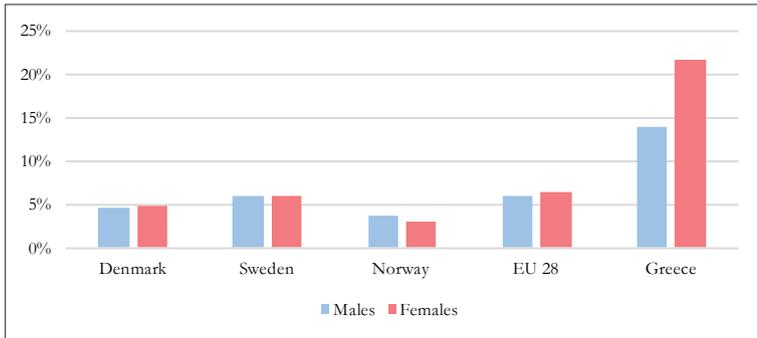
Gender differences in unemployment are relatively small in the Scandinavian countries. In 2019, women had slightly higher unemployment rates than men in Denmark and Sweden, while it was the other way around in Norway. In Greece, the unemployment rate of women is more than 50 percent higher than that of men (Fig. 8.5). If we look at the development in unemployment in Scandinavia for the past ten years, it is only in 2019 that the female unemployment rate has exceeded that of men in Sweden. In Denmark, the female unemployment rate has been higher than men's since 2013 and in Norway men's unemployment rates have always been higher than women's⁶⁹.

Although Scandinavian countries have had an unemployment rate below the EU-28 average for the past decade, the levels are not very different compared to the rest of Europe. This means that, for example, a country like Sweden has the highest employment rate in Europe, but at the same time the Swedish unemployment levels are in line with the unemployment rates in the rest of the EU. The reason why Scandinavian countries are countries with both high employment and relatively high unemployment is that the share of the active population (i.e., the sum of employed and unemployed persons) is high. Put differently, the inactive population, persons neither classified as employed nor unemployed, is low. It is important to remember that being unemployed counts as being part of the "active" population. In Sweden, for example, over 88 percent of the population is either employed or unemployed, whereas in EU-28 the corresponding share is about 80 percent. Hence, broadly speaking the biggest difference between the Scandinavian countries and the rest of Europe is the high share of the population that is registered as active, and in particular the share in employment, is higher than for the rest of Europe. The Scandinavian countries may thus be classified as countries with

⁶⁹ <https://www.nordicstatistics.org/labour-market/>, accessed 26.04.2021

Figure 8.5

Gender differences in unemployment rate by country, age group 20–64 years, 2019



Source: Eurostat, Labour Force Survey.

a high work orientation and where, in addition, people who are temporarily out of work are registered as unemployed and therefore part of the active labour force. The high work orientation is supported by the high integration of women in the labour market.

8.4.3 Activation policies

The overall goal in Scandinavian countries is to keep employment levels high. To achieve this, labour market policies support a welfare system of both passive, and to an ever-greater extent, active labour market measures. An example of a passive measure is economic compensation to people who are temporarily out of work. Replacement rates for the unemployed have traditionally been high in Scandinavia, securing a high level of welfare for the share of the population who is temporarily out of work. In 2015 the replacement ratios, that is the percentage of wage income replaced for a single worker during unemployment, were 65 percent

in Norway, 59 percent in Denmark and 42 percent in Sweden.⁷⁰ The replacement period varies between 60 weeks in Sweden and 104 weeks in Denmark.

An argument in favour of passive measures has been that they support adaptable and flexible labour markets. Through passive measures, it has been possible for labour unions to secure workers' rights to a decent income without necessarily supporting the protection of jobs. For example, this has given room for enterprises to lay off redundant workers and to restructure workplaces in pace with technological advancements. It has been possible to do so in agreement with the labour unions, because the welfare state has generously compensated workers' wages in case of unemployment.

Yet, unemployment compensation is expensive and over the past two to three decades all Scandinavian countries have undertaken reforms to their welfare systems and made cuts to passive labour market measures. Instead, the welfare states invest more in active labour market policies or activation measures.

Two important assumptions support active labour market policies in Scandinavia. First, passive measures alone are insufficient to handle structural or regional unemployment. Second, the labour market is not a self-equilibrating system where everyone seeking work will find a job. Instead, it is deemed necessary to support unemployed workers through a range of different measures.

Active labour market policies (ALMPs) are welfare state initiatives used to increase the likelihood of jobseekers finding employment, and thereby decrease unemployment levels. The main objective is to increase the employment probability of the people who participate in the activation programmes. In more recent years the "employability" of the jobseeker has been emphasised, that is to decrease the distance between the labour market and the

⁷⁰ Source: <https://nordics.info/show/artikel/labour-markets/>. Accessed 15.03.2021

jobseeker by increasing the individual's propensity to either find a job or to be put in a job placement (Kluve 2014).

The historical background for the emphasis on active labour market policies in the Nordic context comes from changes in the perception of what causes unemployment. Until the 1980s, socioeconomic factors outside the control of the individual were considered to be the primary cause of unemployment. This meant that society had an obligation to support the unemployed with compensatory measures such as unemployment benefits. Compensation was provided with no strings attached. From the mid-1970s, the Nordic countries experienced stagnation in economic growth with corresponding rising inflation and rising unemployment. This changing economic situation lay the foundation for a shift in the understanding of unemployment: from considering the cause of unemployment as a problem of low demand to the perception that unemployment is largely voluntary (Olofsson & Wadensjö 2012).

A new problem scenario emerged where generous social security pay-outs were seen as preventing mobility in the labour market and hampering willingness to seek work. Furthermore, high entry wages made it difficult for vulnerable groups such as young people with low education and immigrants to enter the labour market. On top of this, globalisation-caused low-wage competition affected labour market production in Scandinavia and elsewhere in Europe. From this backdrop the employment policies drawn up during the 1990s and continuing up until today have, to a far greater extent, focused on preparing the unemployed for the labour market through the use of activation measures, rather than protecting the unemployed from the economic risks of the market.

Some authors have pointed out that there has been a shift from traditional active labour market policies (ALMP) to activation policies (Kluve 2014, Pedersen & Kuhnle 2017). One of the differences is a stronger emphasis on conditionality, making an explicit link between cash benefits and participation in activation

measures (Pedersen & Kuhnle 2017). This is a more punitive approach, binding the time and effort of the unemployed person to the participation in specific programmes, where non-compliance leads to sanctions in the form of benefit cuts. Another difference is that activation policies are directed at a wider target group, not confined to the unemployed but also to health-benefit recipients, social assistance recipients, immigrants, and young people with low education (*ibid.*)

The actual content of active labour market policy measures may vary somewhat over time and between countries. Some typical measures are programs encouraging the long-term unemployed to return to work, and close follow-up from local public employment offices (PES). Options for retraining or updating knowledge are another important measure. Also, measures such as systematic efforts to locate jobs, PES out-reaching activities towards potential employers, and subsidised employment or wage supplement programs are included in active labour market policies. In addition, public sector employment or sheltered employment may count as ALMP measures.

Most of the tools in the ALMPs toolbox are directed at the supply side of activation. The skills upgrading of the individual unemployed person is emphasised, as well as job-search policies. However, some of the measures are also directed at the demand side, that is at the labour market or employers. This may include wage supplements or policy initiatives, such as that currently issued by Norwegian government that 5 percent of new employment in the public sector should be persons with “holes in their CV”. Passive and active measures are, however, increasingly interlinked, for example by the use of conditionality. In addition, the application of matching strategies seems to gain a stronger foothold. The latter are policies that mix supply and demand-side activation and thus are directed at both the unemployed and the employers at the same time. Examples of such programmes are Supported-Employment initiatives and IPS programmes (Frøyland et al 2018).

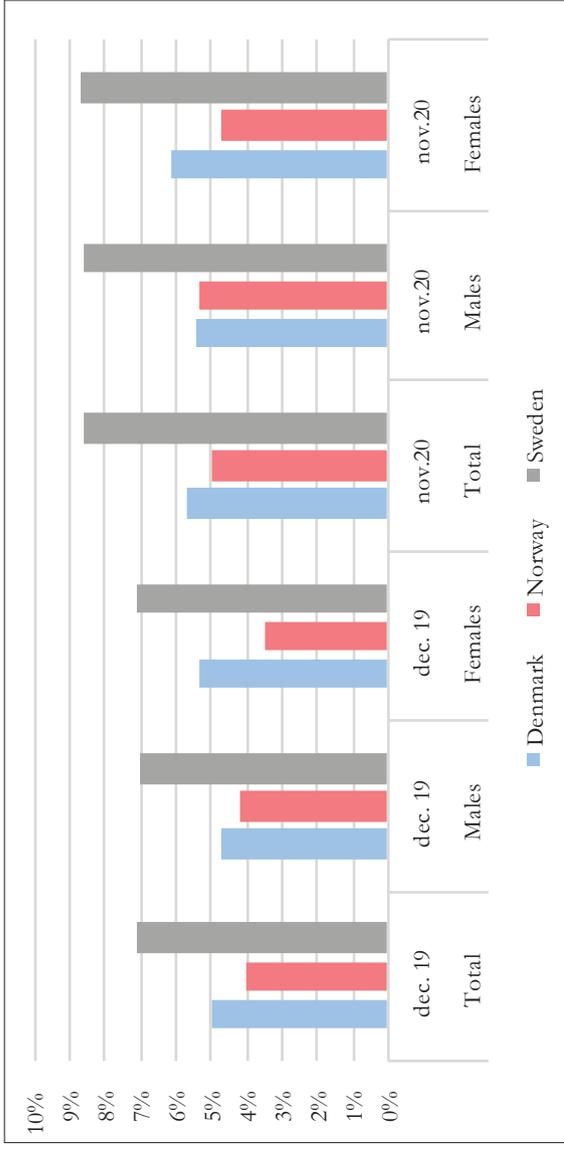
Methodologically it is quite challenging to measure the exact benefit of ALMPs. Generally, the counties have a good overview of the characteristics of participants and how many make a direct transition into work after the end of a programme. It is more difficult, however, to measure the effect of ALMPs over a longer period of time. New research from Norway based on register information demonstrates that about 6 out of 10 participants in job programs have had a career primarily consisting of work 5 years after exiting the job program (Nossen et al 2021). This also means that about 4 out of 10 do not have a stable job career after participating in activation measures. The groups that generally struggle the most with labour market integration are persons with low education (have not completed upper secondary education or a vocational training programme), immigrants and to some extent young persons. Norway, for example, has a high proportion of young persons on health-related benefits.

8.4.4 Unemployment under Covid-19

It is still unclear what impact the Covid-19 situation has had on the labour market, as this epidemic is still ongoing and all the Scandinavian countries are experiencing different forms of restrictions, with consequences for the labour market. The most recent unemployment figures (monthly data) suggest an increase in unemployment, but perhaps less pronounced than what might have been expected given the severity and global nature of the Covid-19 situation.

The Scandinavian countries have provided economic support to businesses during the pandemic. This, in combination with extended unemployment benefit rights, might have contributed to slowing down the negative effects of the pandemic on the labour market.

Figure 8.6
 Seasonally adjusted unemployment rates by gender and age group, 15-64 years,
 December 2019 and November 2020.



Source: Eurostat, Labour Force Survey.

Between December 2019 and November 2020, the Scandinavian countries experienced a rise in unemployment rates of about one percentage point in Norway and Denmark, and about 1.5 percentage points in Sweden. In Denmark, the unemployment rates were higher for women than for men. In Norway, the rates were higher for men while in Sweden there has been no gender differences in unemployment rates during the Covid-19 period.

One of the concerns is of course that the economic consequences of the Covid-19 situation will have a more lasting effect on the labour market and contribute to an increase in economic differences. Studies carried out in Norway during the first months after the Corona pandemic hit Scandinavia in March 2020, indicate that there are large differences relating to which groups of employers were hardest hit by the restrictions caused by the pandemic. The branches most affected by the lockdown situation have been tourism, the cultural and entertainment sector, hotels and restaurants, transport, and travel. The Covid-19 situation has therefore affected some workers more than others.

Generally, low education/low-income workers have experienced a lesser degree of home-working, more frequently being laid off, and have experienced an income loss during the pandemic, compared to the high education/high-income group of workers (Mamelund et al 2020). Studies of the first phase of the pandemic based on Norwegian register data also indicate large social differences in who experienced being dismissed or laid off. A significant share of newly unemployed were young people, under 30 years old.

In addition, the Covid-19 crisis affected women more than men, because more women are employed in the service sector. Furthermore, persons with completed upper-secondary education or lower were also particularly exposed, as were those with low wages/low household incomes. This means that workers in the lower social classes have been more exposed to the negative impact

of the crisis than other groups (Bratsberg et al 2020). Finally, a study finds that the number of new job advertisements relevant for young jobseekers also dropped in the first phase of the pandemic, making the labour market situation for young people particularly vulnerable to the negative labour market effects following from the Covid-19 crisis (Østbakken et al. 2020).

8.5 The labour market situation of women

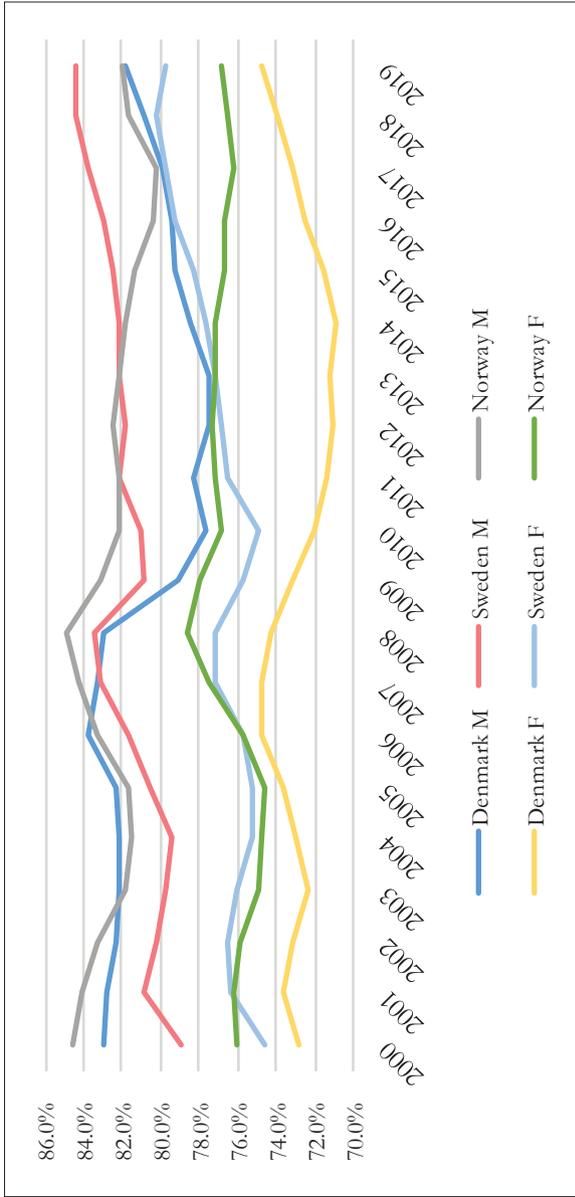
In this chapter, we look at the labour market situation of women in the Nordic countries. From the 1970s, Nordic women entered the labour market in great numbers. First the married women and since the 1980s mothers of small children as well (Kjeldstad 1998). Today, women's participation in the labour market is on a par with men's and they do not constitute a marginalised or vulnerable group in the labour market. However, there are some differences in labour market affiliation: in Denmark, Norway and Sweden, women work part-time to a greater extent than men and the labour market is gender segregated.

8.5.1 Employment

The Nordic countries are characterised by high female labour market participation and almost three-fourths of women participate in the labour market. Gender gaps in labour market participation and employment are among the smallest in Europe, particularly for highly educated men and women. However, the Nordic labour market is not completely gender equal. It is gender segregated, men and women working in different sectors and industries and marked by women's part-time employment.

Men between 20 and 64 years of age have a higher employment rate than women in all Scandinavian countries. Swedish men rank the highest with an employment rate at 84.4 percent in 2019,

Figure 8.7
 Employment rate by country and gender, 20–64 years, 2000–2019.



Source: Eurostat, Labour Force Survey.

whereas Danish women rank the lowest with an employment rate of 74.7 percent. The gender gap thus ranges between 5.2 percent in Denmark and 4.7 percent in Sweden. This demonstrates that both men and women are well integrated in the Scandinavian labour markets.

While both women's and men's labour force participation rates are high, the Scandinavian labour markets are, as stated, gender segregated. Most women work in female-dominated industries like care work, health and education. Men are mainly employed in male-dominated industries such as construction, utilities, transport and IT. This segregation is the most important explanation behind the gender pay gap.

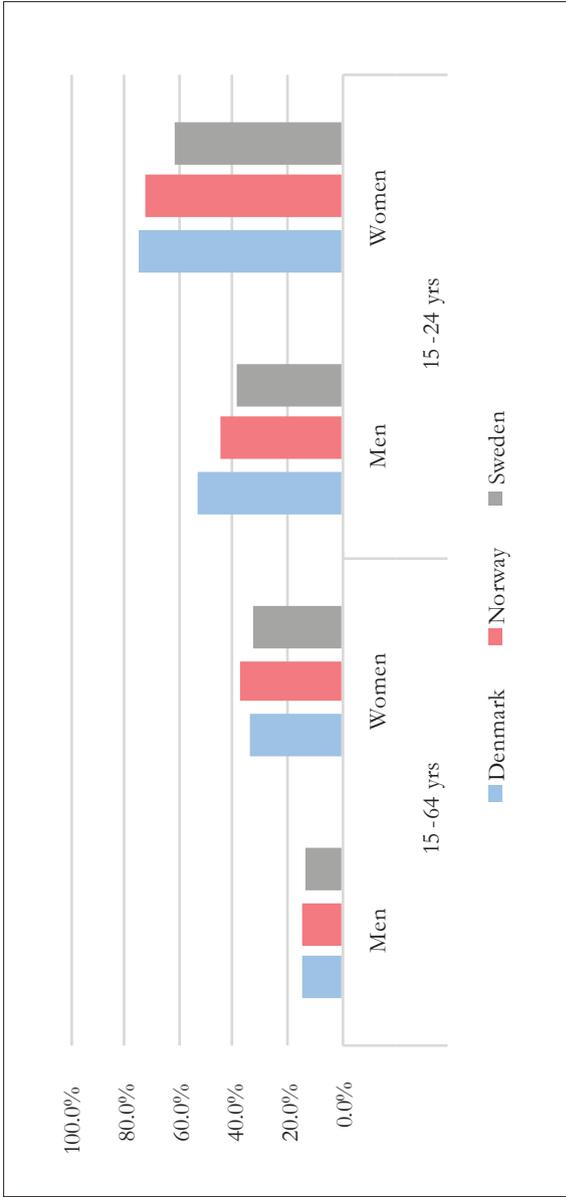
8.5.2 Part-time employment

One of the most widespread discussions in Scandinavian countries related to gender equality has concerned the work-family balance, more specifically women and part-time work. Part-time employment is much more pronounced among women than men, and part-time employment is more prevalent in the Nordics than in the EU at large. Part time work is more widespread among women in Norway and Denmark than in Sweden (Fig. 3.1).

For the population aged 15–64 years women have approximately twice as high a part-time employment rate as men. There are some minor variations between the countries. The highest rate of part-time work is among Norwegian women at 37.6 percent. In Scandinavian countries, 15 percent or less of men aged 15–64 work part time.

Part-time work is much more common in the youngest segment of the population; however, this is most likely linked to another phenomenon, namely that young people combine education and employment (see more details below). In particular, young women display high levels of part time work at over 60 percent in the

Figure 8.8
Part-time employment by country, age group and gender in 2019



Source: Eurostat, Labour Force Survey.

15–24 age group, compared to between 39 and 53 percent of Scandinavian young men.

Many female part-time workers have chosen to work fewer hours, for a shorter or longer period. This choice is often explained with reference to a need for a better balance between family and working life. The opportunity to work part time has contributed to the high degree of labour market participation among women in the Nordic countries. The flexibility made possible by the opportunity to work part time is perceived as advantageous for women, their families and their employers. However, there has been an increased awareness of the negative consequences of women's part-time work for gender equality. While the opportunity for part-time work has a positive effect on the labour participation rate of women, it affects women's economic standing and career opportunities. In addition, more women work part time because there is a tradition for part-time hours and shift work in female-dominated industries. At the same time, women shoulder a larger share of unpaid care work and housework. This leads to inequality in working hours and ultimately in lifetime earnings.

There are also examples of new forms of atypical employment contracts; marginalized work and involuntary part-time work have increased in sectors and occupations at the “bottom” of the labour market, typically for women with low education and migrant backgrounds (Nicolaisen et al. 2019).

8.5.3 Gender segregated labour market

Many women who entered the labour force in the 1970s and 1980s were employed in the public sector, which was experiencing a period of strong growth partly due to the expansion of health and care services. This horizontal segregation where men and women work within different sectors and industries remains the situation.

In Norway 70 percent of public sector employees are women. This means that almost half of all working women are employed in the public sector. In the private sector, however, over 60 percent of employees are men, and only two out of ten men work in the public sector (SSB 2018).

The gender division in the labour market can also be described as vertical, with far more men than women in managerial positions. The gender segregated labour market, where women and men choose to work in different sectors and occupations, can also lead to major disparities in pay, part-time work, working environment and career opportunities.

8.5.4 Challenges for the integration of women in the labour market

- Despite the implementation of gender equality principles, gender differences are still evident in terms of employment patterns and working conditions. A large share of Nordic women work part-time.
- The gender gap is visible in terms of horizontal and vertical segregation, pay gaps and in the division of care responsibilities (see next chapter).

8.6 Family and gender equality policies in Scandinavia

Women's employment rates are high and almost at the level of men's in the Scandinavian countries. The main strategy in achieving gender equality has been to strengthen women's economic independence through increasing their labour market participation. The Nordic welfare systems ensures childcare and parental leave. These measures have been crucial for the dual career family policy. The family policies in the Nordic countries strongly support the dual earner/dual carer model through a package of

gender equalising family policies (Rønsen and Kitterød, 2015). The system is based on a two-track model for gender equality – facilitating the mothers’ paid employment and the fathers’ caring role (Bjørnholt, 2012).

In this chapter, we present the family and gender equality policies that support positive outcomes for the labour market integration of women in Scandinavia, as gender equality legislation, rights to part-time work, rights and services for working parents and affordable day-care.

8.6.1 Gender equality in legislation and agreements

The Nordic countries have a long history of promoting gender equality. They explicitly support gender equality at home, at work and in public life and they have taken many actions to promote this goal. The Nordic countries provide comprehensive packages of gender and family policies. The specifics vary between the countries, but the general emphasis is on encouraging full-time employment among all women and men, including single parents, and promoting a “dual earner-dual career” family model (OECD 2018).

All Nordic gender equality legislation combines protection against discrimination with active duties for public authorities and employers to promote equality. Binding regulations on proactive duties can be seen as one way to try to ensure that equality work is integrated into the everyday business of enterprises and organizations. In EU terms, this is seen as mainstreaming gender equality (Teigen & Skjeie 2017). Below we give an example of how active equality efforts are formulated in the Norwegian Equality and Anti-Discrimination Act.⁷¹

⁷¹ <https://lovdata.no/dokument/NLE/lov/2017-06-16-51>

Norway: Activity and reporting duties

In Norway, a new statutory provision which strengthens activity and reporting duties took effect on 1 January 2020. Public authorities have a duty to engage actively in efforts to promote equality in all sectors of society. In addition, public authorities are subject to a duty to provide reasons in connection with the exercise of official powers and their role as a service provider.

Employers have a duty to make active, targeted efforts to promote equality in their operations. Public undertakings and private sector undertakings with more than 50 employees are required to adopt a concrete methodology (a specified activity duty). The same applies to private undertakings with between 20 and 50 employees, if demanded by a social partner. As of 1 January 2020, these employers also have a duty to conduct pay surveys by gender, as well as a duty to survey the use of involuntary part-time work. These activities must be undertaken in consultation with employees. Employers who are subject to a specified activity duty also have a duty to issue statements on their equality efforts. Employers must describe the actual status of equality within their undertaking and what they are doing to fulfil the activity duty. The Equality and Anti-Discrimination Act also imposes a duty on the social partners to promote equality actively in their areas of activity.

8.6.2 Parental leave

The Nordic countries have high participation rates of mothers and a moderate decrease of fertility rates compared to other western countries. Generous parental leave schemes exist in all the Nordic countries, although there are differences between the countries in the specifications of the parental leave arrangements. The availability of generous parental leave schemes, including high compensation rates, makes it possible for mothers to take a considerable time out of work in connection with childbirths and to return to

their previous jobs afterwards (Gupta & Verner 2006).⁷² However, in order to promote and facilitate gender equality at home and in the labour market, efforts have been made at the political level to encourage parents to divide the leave time equally. These efforts have yielded results: Nordic fathers take more parental leave than fathers anywhere else in the world (NIKK 2020).

As table 7.1 shows, generous parental leave schemes exist in all the Nordic countries, although there are important differences between the countries in the specification of the parental leave. Sweden introduced a parental leave that could be split by parents in 1974, Norway followed in 1978 and Denmark in 1984. However, the initiative had only marginal effects, as mothers continued to take much more parental leave than their male partners. The Nordic countries encourage both parents to stay home from work with their young children. In recognition of a gender imbalance in the distribution of parental leave, the Nordic countries have taken initiatives to increase the paternity leave through campaigns, organisation and quotas.

Table 8.1

The parental leave systems in Denmark, Norway and Sweden

	Denmark	Norway	Sweden
Year of introduction	1984	1978	1974
Number of weeks	52	49	480 days
Year of introduction of father quotas	1998-2000	1993	1995
Number of weeks reserved for fathers	0*	15	90 days
Number of weeks reserved for mothers	14	18 (3 weeks before birth)	90 days

* Father with mother, 2 weeks paternity leave

Sources: Teigen & Skjeie 2017, NIKK 2020

⁷² <https://www.iza.org/publications/dp/2014/child-care-and-parental-leave-in-the-nordic-countries-a-model-to-aspire-to>

As table 7.1 shows the parental leave consist of three parts: one part is reserved for fathers, one for mothers and the third part of the parental leave can be shared between the parents as they desire. Norway was the first country ever to introduce a father's quota in 1993 followed by Sweden in 1995. In 1993 the father quota was four weeks, but it has been changed several times; in 2013 it was 14 weeks, in 2014 it was reduced to 10 weeks and in 2018 increased to 15 weeks. In Sweden, there is a total of 840 days, where 90 days are reserved for each of the parents. Denmark is the Scandinavian country with the least time reserved for the father, two weeks after birth or by agreement with the employer before the child is 14 weeks (table 7.1). In Denmark, a father's quota in the parental leave scheme was introduced in 1998 and abolished in 2002.

The assumption is that gender-equal parenting contributes towards a more gender-equal participation in the labour market. The fact that women take more parental leave can affect their careers negatively. An extended absence from work may reduce a person's status and opportunities in the labour market. Thus, the idea is that when men take long term parental leave, the prospects for gender equality in the labour market increase.

However, although fathers take more parental leave than before, the mothers continue to take the larger share. There are also differences in how much parental leave fathers in the Nordic countries take. Statistics from 2015 show that the share of parental leave taken by fathers was 27 percent in Sweden, 21 percent in Norway and 10 percent in Denmark.

Parental benefits

In all Nordic countries, parents are financially compensated for the income they lose during their parental leave. The exact level of compensation varies and different calculation principles apply.

The Danish benefits consist of 100 percent of the relatively low sickness benefit, the Norwegian depends on former wages, and in Sweden 80 percent of former wages (Rostgaard 2014). In all three countries the right to benefits depends on prior labour market attachment, for example in Norway, parents must have been in employment for six of the ten months prior to taking leave and also have had a yearly income exceeding a certain level. In Norway, for mothers who have not been in paid work and earned the right to parental benefits, a lump-sum grant is paid out (Rostgaard 2014).

There is an apparent correlation between the level of compensation and the amount of parental leave fathers take⁷³.

- New parents in Sweden are entitled to 480 days of leave at 80 percent of their normal pay.
- In Norway parents can take 49 weeks at full pay or 59 weeks at 80 percent pay.
- In Denmark, by law, the government covers 52 weeks of pay, though not always at the full salary.

Cash-for-care benefit

A cash-for-care benefit was introduced in Norway in 1998; it extends the period where the family can care for the child at home after parental leave has ended. The benefit is state funded and parents of children between one and two (12-23 months) who do not attend publicly subsidized childcare are entitled to a monthly flat rate benefit of approximately NOK 5000 for children aged 13-18 months and NOK 3300 for children aged 19-23 months. If the child attends a day-care centre and the agreed attendance is less than 20 hours per week, the parents may receive 50 percent cash-for-care benefit. The maximum benefit period is 11 months.

This benefit has been met with considerable opposition, particularly from left wing politicians. The benefit has been criticized

⁷³ <https://www.norden.org/en/publication/shared-and-paid-parental-leave-0>

for undermining mothers' employment, particularly for giving incentives to low paid mothers and immigrant mothers to stay out of employment (Ellingsæter 2012).

In 2008, Sweden introduced a cash-for-care benefit consisting of a flat-rate sum paid by municipalities to parents whose children were between the ages of one and three and who did not use publicly subsidised childcare. The main objective of the reform was to increase parents' 'freedom to choose', but the policy was criticised because of its potentially negative effects on gender equality and mothers' employment and the benefit was abolished in 2016 (Guliania & Duvander 2016).

8.6.3 Affordable day care for children

Access to publicly financed childcare facilities as the child grows older is commonly seen as crucial to fostering the equitable sharing of domestic childcare between mothers and fathers and to making the work–life balance a reality (Skjeie & Teigen 2017). The introduction of affordable childcare of good quality is seen as a key reason why so many women are in paid employment in the Nordic countries. To achieve this the governments have ensured a smooth transition between parental leave and childcare and in all Nordic countries (except Iceland) parents are entitled to childcare for their children after their parental leave.

A distinctive feature of Nordic childcare is that it is available to all children regardless of family structure, finances and parents' employment. Almost all 3–5-year-olds in the Nordic countries are enrolled in some type of childcare services. Even many children aged 0–2 spend time in childcare outside the family. The lower share of small children in day care in Sweden is most likely a result of their long parental leave. Compared with other OECD countries, the Nordic countries have much higher shares of children 0–2 years of age enrolled in some type of childcare.

Table 8.2

Share of children enrolled in childcare. Percent of age group (2016)

Age	Denmark	Norway	Sweden
1-2 years	89	82	70
3-5 years	97	97	97

Source: Nordic Statistics 2018

Nordic childcare involves a wide range of actors and parents have access to both municipal and private childcare options. In Denmark, family day care is common for young children 1-3 years. Family day care used to be common in Norway, but this changed as the availability of childcare centres has been substantially expanded.

Regardless of how the childcare is organised, it must be offered in line with the nationally established early childhood curriculum, by qualified staff and in accordance with particular regulations.

Parents have to pay for childcare, however childcare services are subsidised and based on a rights approach – it is a legal requirement that all families be able to afford childcare. Often the fees are income-based and parents are offered sibling discounts. In Norway, there is a system where children from low-income households are entitled to a certain number of hours of childcare free of charge.

After-school programmes

Children start at school at the age of six and for the youngest children (6-10 years) there are after-school programmes. The service is most often organised by the municipalities and is part of the ordinary school system. In Norway, all municipalities must offer a before-and after-school programme from the first to the fourth grade, and for children with special needs from the first to the seventh grade. This means that children can stay in school before and after school, while their parents are at work. In all

Scandinavian countries, there is a parental fee for attending after-school programmes.

When children are sick

Parents in all Nordic countries have the right to stay home with a sick child, although the exact rules vary. In Sweden and Norway, the right is protected by law. In Sweden, parents can stay home for a total of 120 days per child per year until the child turns 12 years old. When staying home they receive 80 per cent of their regular income up to a maximum amount.

Norwegian parents are entitled to 10 paid days per year until the child turns 12 years old. Families with three or more children are entitled to 20 days. A single parent is entitled to 20 days. The compensation rate is 100 percent of the lost income.

In Denmark, the compensation rate and number of days a parent can stay home are regulated through collective agreements, often one to two days.

In Norway, employees who have children in their care are entitled to a leave of absence when it is necessary to attend a sick child, if a child shall be accompanied to a medical examination, or if the person responsible for the childcare is sick. The right to leave applies up to and including the calendar year of the child's twelfth birthday. The employee is entitled to a maximum of 10 days' leave per calendar year or maximum 15 days if the employee has two or more children in his/her care. The employer must cover the employee's pay for up to ten days.

If the child has a chronic or long-term illness or disability the employee is entitled to a maximum of 20 days of paid leave. The right applies up to and including the child's eighteenth birthday. An employee who has the responsibility for care of children shall be entitled to leave of absence if the child is hospitalised and the employee stays at the health institution, together with the child.

The same arrangement applies if the child has been discharged from the health institution, and the employee must stay home because the child needs continuous care and attention. An employee who has the sole responsibility for the care of a child is entitled to twice the number of days of leave when the child is sick.

8.6.4 Challenges

- The generous leave schemes and extensive childcare in the Nordic countries have facilitated the reconciliation between family and work by promoting women's participation in the labour market, as well as promoting men's participation in the family and care for children. However, even though the family-friendly policies are directed at both mother and father, mothers make use of both paid parental leave and the right to reduced working hours to a much higher extent than fathers.
- Fathers' time spent on employment has been rather stable. Although most fathers take the designated father quota, they still take little of the parental leave.
- A main criticism concerning the family-friendly policies, with paid leave of absence and reduced work hours, is that it might develop a two-tier model of parenthood in work life – one model for mothers and one for fathers. It also may consolidate women in a weaker labour market situation, where their lifetime earnings are lower and their career opportunities fewer.

8.7 Education system and educational attainment in Scandinavia

To equip young people with the skills preparing them for the labour market is a key ambition of the education systems in Scandinavia. The Nordic model is dependent on high levels of labour market

integration to maintain the relatively generous welfare policies, and the education system is an important factor for achieving this. Key policy aims are therefore to reduce school dropout rates, to encourage all young people to complete (at least) upper secondary education, and to support higher education with no tuition, and a combination of student grants and affordable student loans. Despite many similarities in the education systems in Scandinavia, there are also some differences. In this chapter, we will describe the upper-secondary school and the college/university system in Norway, Sweden and Denmark. While the compulsory school structure is similar across the Nordic countries, differences are more pronounced when it comes to upper-secondary education.

8.7.1 Free education

In the Scandinavian countries, education is free and publicly funded. Education has been an important part of the Nordic welfare system; it has been regarded as a crucial instrument for social justice and security by providing schooling of high and equal quality to all citizens regardless of social class, gender or geographic location. The Nordic countries have a generous and, relatively speaking, rather equal provision of education at all levels. The principle that parents' lack of economic resources should not prevent children from getting education of good quality continues to be upheld. Education is compulsory for children until the ninth/tenth grade of primary school, and afterwards most pupils proceed to upper-secondary school, followed by a degree in higher education institutions.

8.7.2 Upper-secondary school: General Studies and Vocational Education and Training (VET)

Most young people in the Nordic countries enter upper-secondary education. In Norway and Sweden, virtually all students who

complete compulsory schooling enrol in upper-secondary school. Enrolment is also high in Denmark, but at a slightly lower level (Bäckman et al 2017). In Norway, young people that have completed basic education have a statutory right to enter upper-secondary education, even if they do not have passing grades in all lower-secondary school subjects or exams. In Sweden, all municipalities are obliged to offer secondary education to young people who have completed compulsory school. Those who do not have passing grades from compulsory school can attend introductory programmes to qualify for further participation in upper-secondary programmes. In Denmark, all students who have passed the prescribed examinations from their lower-secondary education can enter an upper-secondary programme (Hansen et al 2018).

Organisation of upper-secondary education

In each of the Scandinavian countries, upper-secondary education consists of general studies programmes and vocational education and training (VET) programmes. ‘General studies’ is an academic specialisation that provides qualification for higher education, while VET is more practically oriented. Both programmes usually have a duration of three or four years. Of the Scandinavian countries, Denmark has the VET system that is most closely attached to the labour market, while Sweden’s VET system is largely school-based (Hansen et al 2018).

Denmark

After elementary school, most young people in Denmark get upper-secondary education, either general programmes or vocational education. There are four different types of general programmes. Common to them all is that they are preparatory for further study – i.e., a secondary school diploma allows the student to apply for admission to a programme of higher education.

General studies programmes

The common objective of general studies programmes is to prepare young people for higher education. Most of the programmes have a duration of three years and are directed towards young people who have completed nine years of basic education. Students usually start at the age of 16 and graduate at the age of 19. However, this depends on several factors, including whether the student in question has completed the tenth grade.

Vocational programmes

A vocational programme is a practical educational programme in which most of the teaching takes place in an internship venue, such as a large industrial company, a workshop, a kitchen or a shop. The programme alternates between school classes and periods of practical work experience, and usually consists of a basic course and a main course. It is possible to enrol in a vocational programme directly after elementary school, or later, depending on your age and background. When pupils have completed a vocational programme, they will be qualified for employment as a skilled worker.

The social partners have considerable influence on - and thus great responsibility for - the VET programmes. Trade committees that have been set up by employers and employees lay down the detailed content of a specific trade's education and training programmes within the school's general framework. This applies to the duration and structure of the programmes and their objectives and assessments, as well as the distribution of practical training and school-based teaching. The committees are obliged to follow labour market developments, to take the initiative to introduce new education and training programmes and to make adjustments to existing programmes, depending on the changing demands of the labour market (Hansen et al 2018).

Norway

All pupils who have completed primary and lower secondary education, or the equivalent, are entitled to apply for upper-secondary education. This is called the ‘young person’s right’ (*ungdomsrett*). The young person’s right applies until the school year starting in the year of your 24th birthday.

Upper-secondary education prepares students either for further education or the labour market. Most students apply to one of two tracks: a three-year general programme or a four-year vocational programme, the latter including two years of learning at an upper-secondary education institution and a two-year apprenticeship in the workplace.

General studies programmes

Education programmes that allow students to qualify for application to higher education place most emphasis on theoretical knowledge, and lead to a general university entrance diploma. With this diploma you can apply for higher education at universities and university colleges when you have completed upper secondary education.

Vocational educational programmes (VET)

VET in Norway consists of eight programmes that lead to more than 180 different trade or journeyman’s certificates. Most of the VET programmes consist of two years of school-based education and training, followed by two years of apprenticeship in a training enterprise. After achieving vocational competence, students can choose the supplementary programme for general university admissions certification on all the vocational education programmes. The opportunity to progress from initial vocational

upper secondary education (VET) to higher education is important for VET's attractiveness to young people and for social equality in education.

Sweden

All young people in Sweden who have completed compulsory school are entitled to upper-secondary education. In Sweden, vocational education (VET) has been integrated into the general upper-secondary school system. This full-time, school-based system does not have a direct connection to the labour market. The Swedish upper-secondary educational programmes, both those that give a qualification to higher education and the vocational programmes, contain a lot of theoretical tuition. However, all vocational programmes also offer work experience, called Workplace-based Learning.

All upper-secondary programmes are three years long. All pupils who complete a vocational programme can achieve a diploma that qualifies them for university entry, by choosing courses in Swedish and English that enable the pupil to meet general entry requirements for higher education. Admission to many higher educational programmes also requires specific entry qualifications.

Dropouts

As said, nearly all young people in the Scandinavian countries enter upper-secondary education. However, there is a shared concern that too many drop out before completion (Hansen et al. 2018). Young people who have not completed their upper-secondary education have difficulty finding work and are at risk of social exclusion. While it is difficult to draw firm conclusions about the impact cross-national differences in organising upper-secondary

school may have on dropout levels, the OECD (among others) has stated that there may be such a connection.

An OECD study of Norwegian youth (2018) shows that Norway has a relatively high non-completion rate among VET students. One possible explanation is the relatively academic nature of VET studies in Norway, which consist of two years of school-based training before students are expected to find an apprenticeship. Many students struggle to make this transition and end up without an apprenticeship contract. In addition, students enter into VET programmes based on their own interests, and these choices may not correspond with the future needs in the labour market. The OECD report suggests that Norway change their organisation of VET studies to become more work-based and better aligned with labour market demands. This may serve as an example of the potentially large impact the organisation of upper-secondary school services can have on the ability of young people to successfully transition into employment, instead of ending up as NEETs.

8.7.3 Higher education

The Nordic countries share common features such as higher education systems largely funded by the state, the absence of tuition fees, and egalitarian principles undergirding access to higher education (Isopahkala-Bouret et al 2018). The share of the population holding a higher education degree and the number of graduates from higher education is increasing in all the Nordic countries (Elken et al. 2015). Furthermore, a greater proportion of women than men have a higher education. 61 percent of those with higher education qualifications are women.

There is a relatively similar degree structure established in the Nordic countries, largely because of the reforms realised in the context of the Bologna process – and the system of Bachelor's and Master's Degrees is widespread (Elken et al 2015).

Denmark

Higher education in Denmark is organised into three types of programmes offered by different institutions. Short-length programmes are offered by business colleges (*erhvervsakademier*) responsible for vocational training, medium-length bachelor's programmes that train teachers, pedagogues, and social workers are offered by university colleges (*professionshøjskoler*), and long-length programmes (master's and PhD programmes) are, in addition to bachelor's programmes, offered by universities. Universities are also responsible for most of the sector's research activity.

Norway

The Norwegian higher education system is relatively open and accessible. Higher education institutions are well-funded, and students have relatively good access to student financial assistance. As a result, more Norwegians than ever are currently participating in and graduating from higher education.

Norway has universities, university colleges and specialised university institutions, all of which are regarded as higher education. There are also a number of private higher education institutions. Both universities and university colleges offer 3-year bachelor's degrees, 2 year-master master's degrees and 3-year Ph.D. degrees. In addition, one-year programmes (*årsstudium*) are offered in many places.

Professional studies

Professional studies (*profesjonsstudier*) are educational programmes within specific disciplines that lead to a specific profession. Examples are psychology, law and medicine. These programmes are often five years.

Tertiary vocational education

There is a vocational alternative to education at university colleges and universities. Tertiary vocational education (*fagskoleutdanning*) comprises short, vocational programmes from six months to two years. These programmes give competencies that can be used directly in working life. Tertiary vocational education builds on an upper-secondary education or a corresponding level of competency and is often arranged so that you can study while you are working. All counties offer tertiary vocational education. The tertiary vocational sector also has private actors. Tertiary vocational education in Norway is the equivalent of the Danish ‘*erhvervsutdanning*’ and the Swedish ‘*yrkeshögskola*’.

Sweden

Higher education in Sweden is divided into three levels: 1) a bachelor’s level that builds on the knowledge the student has acquired at upper secondary school, 2) a master’s level that builds on the knowledge the student has acquired at bachelor’s level, and 3) a doctoral level that builds on the knowledge acquired at bachelor’s and master’s levels. You can study a higher education programme at a university or a university college.

8.7.4 Student loans/grants

As mentioned, the basic principles entail that everyone should have the same educational opportunities, regardless of their social or economic background.

Denmark

Danish students are entitled to public support regardless of social standing. Students are eligible for financial help to cover living

costs for a great variety of courses and studies. Support for students' living costs is awarded by the State Educational Grant and Loan Scheme, a system managed by the Danish Agency for Higher Education in collaboration with the educational institutions and under the auspices of the Danish Ministry Higher Education and Science.

Norway

Norwegian students are entitled to loans and grants from the State Educational Loan Fund. Basic support is initially given as a loan, however, 40 percent of the loan may be converted to a grant for students who do not live at home with their parents. To receive the maximum grant, students have to pass all their examinations and not have income or assets exceeding certain limits. Students must repay their loans when they complete their education or when they are no longer entitled to receive support. The repayment period is normally 20 years.

Sweden

Swedish students who have been accepted by a university, a university college or another post-secondary education institution, and who fulfil certain basic criteria, have a right to student aid if they study at least half time, for at least three weeks. If a grant-aided independent institution is authorised to award qualifications, its students are entitled to receive financial support for their studies.

Student aid consists of two parts: a grant and a repayable loan. A student can choose to apply only for the grant. Under certain conditions, a student may be entitled to student aid for studies outside of Sweden. Under certain circumstances, the student may also be eligible to a supplementary loan. For students with children there is a possibility to receive extra child allowance.

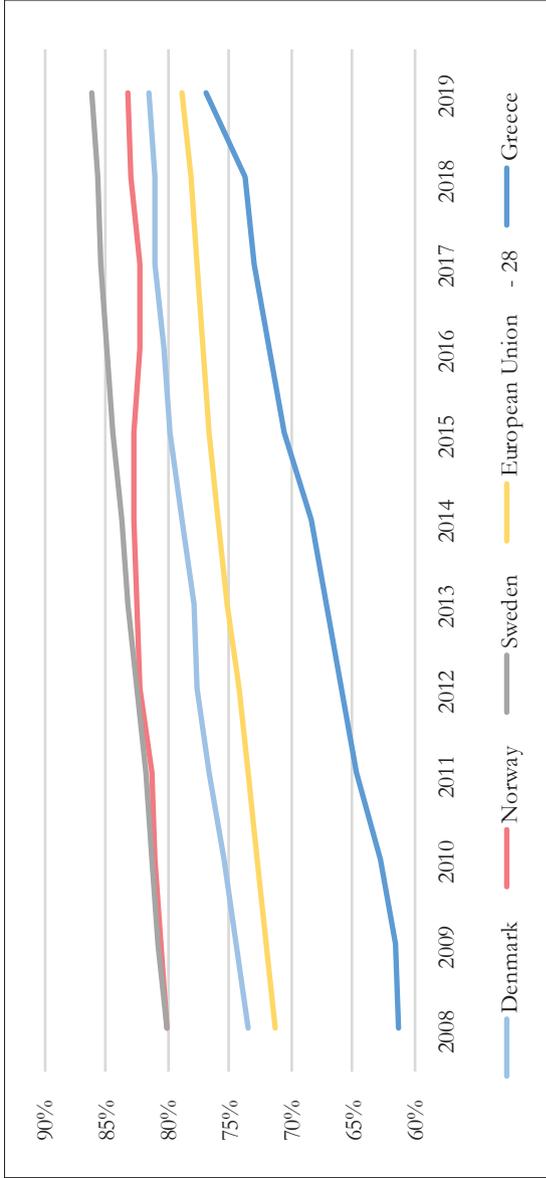
8.7.5 General trends in educational attainment

As pointed out, the general educational level in Scandinavia has for a long period been on the increase. Over the last decade, the share of the adult population that has completed at least upper-secondary education has risen in all the countries. Well over 80 percent of the 25-64-year-olds have completed at least upper-secondary education.

An increasing share of the younger cohorts also complete tertiary education. Looking at the age group between 30 and 34 years, around 50 percent have also completed tertiary education (ISCED levels 5–8). This is well above the EU-28 average at just over 40 percent, illustrating that the work force in Scandinavia is generally well educated.

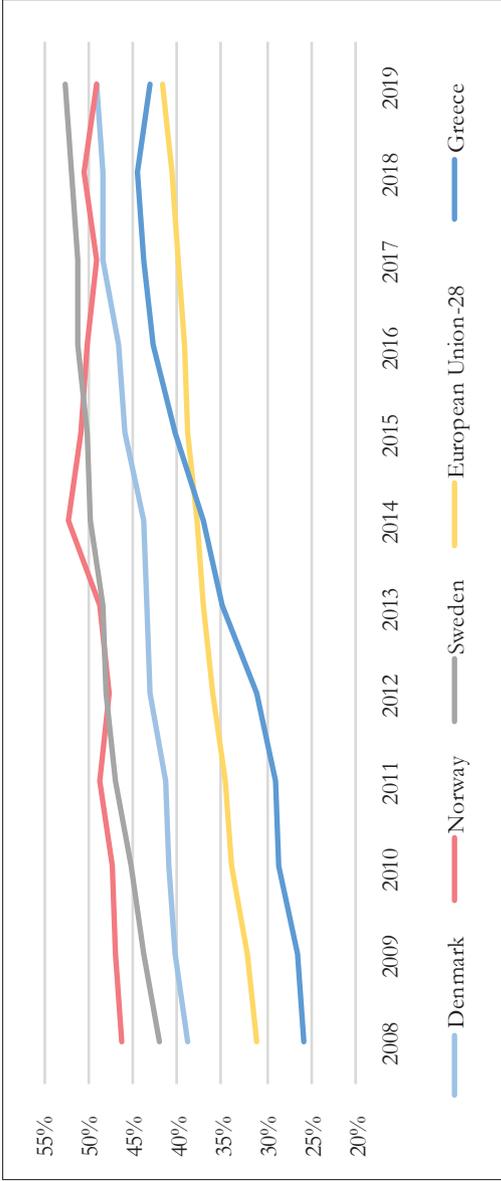
It is worth noticing that differences in educational attainment between men and women differs in Scandinavia. More women than men are in the highest educated group.

Figure 8.9
 At least upper-secondary educational attainment by country and age group 25-64 years. 2008-2019



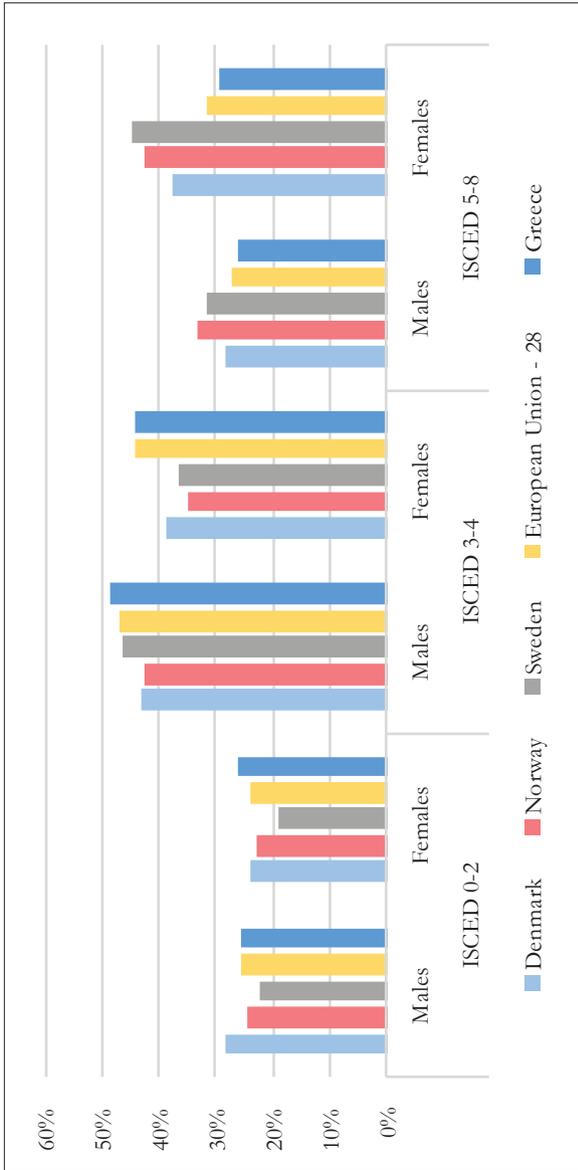
Source: Eurostat, Labour Force Survey.

Figure 8.10
Tertiary education (ISCED levels 5-8) 2008-2019 by country and age group 30-34 years



Source: Eurostat, Labour Force Survey.

Figure 8.11
 Educational attainment by ISCED level and gender. Population between 15-64 years in 2019



Source: Eurostat, Labour Force Survey.

8.7.6 Challenges

- At the same time, as the level of education in the population increases, the competence requirements in working life are also changing. Higher education is required more often to gain access to working life. A main concern is to assure that as many young people as possible complete at least upper-secondary education and to prevent dropouts.
- There are ongoing political debates on how to link educational institutions and working life more closely. In Denmark in 2014, a political initiative was taken to reduce the number of students in programs with graduate unemployment (Pinheiro et al 2019).
- It has also been perceived as a challenge that students spend too much time completing their education. In recent years, several policy initiatives have been developed that are aimed at boosting effectiveness and efficiency. On the teaching front, these initiatives have been geared towards increasing students' throughput.

8.8 Labour market outcomes for the young

The integration of young people in the Scandinavian labour market rests on a two-fold strategy: a well-functioning and free-of-cost education system, and a comprehensive system of activation policies. The primary aim is to assure that young people undertake swift school to work (STW) transitions. Youth unemployment is, however, a serious problem, in the Scandinavian countries as well, and the transition from education to work is difficult for many young people. The second part of the strategy therefore focuses on shifting young people with no or uncompleted education either back to education, so that they will later qualify for work, or to support young people's labour market entry through activation

initiatives (Olofsson & Wadensjö 2012, Tosun et al 2017, NO-SOSCO 2011).

As documented previously, the educational level in the population has been on the increase over the past decades, delaying the point at which young people make a more permanent transition into the labour market. However, there is at the same time a persistent problem with school dropout rates from upper-secondary levels. Furthermore, structural changes in the labour market and an increase in the use of temporary contracts make SWT take the form of an unstructured process, stretching out in time over the life course of young people. Instead of one defined shift, from education into work, many young people experience a more gradual transition, sometimes shifting in and out of temporary work, or having transitions characterised by part-time work combined with education. This makes labour market outcomes for young people more complicated to describe than for the adult population. For example, it is not necessarily desirable to have high employment rates for the young, as it is a goal for young people to complete education and not be in work. Consequently, employment measures may not tell a very interesting story on the labour market participation prospects of young people.

Furthermore, unemployment rates may also be a problematic measure, particularly in cross-national comparisons. Technical differences in the educational systems may, for example, mean that for some young people registered as in employment, this applies in some countries to students in vocational training, where other countries include vocational education as part of the education system. This may cause differences in national statistics that in reality say very little about any cross-national differences in youth unemployment (Forslund 2018). Therefore, it has become more common to compare inactivity rates among young persons in terms of NEET rates.

In this chapter, we will briefly describe both youth employment and unemployment rates, before we turn to comparing NEET rates

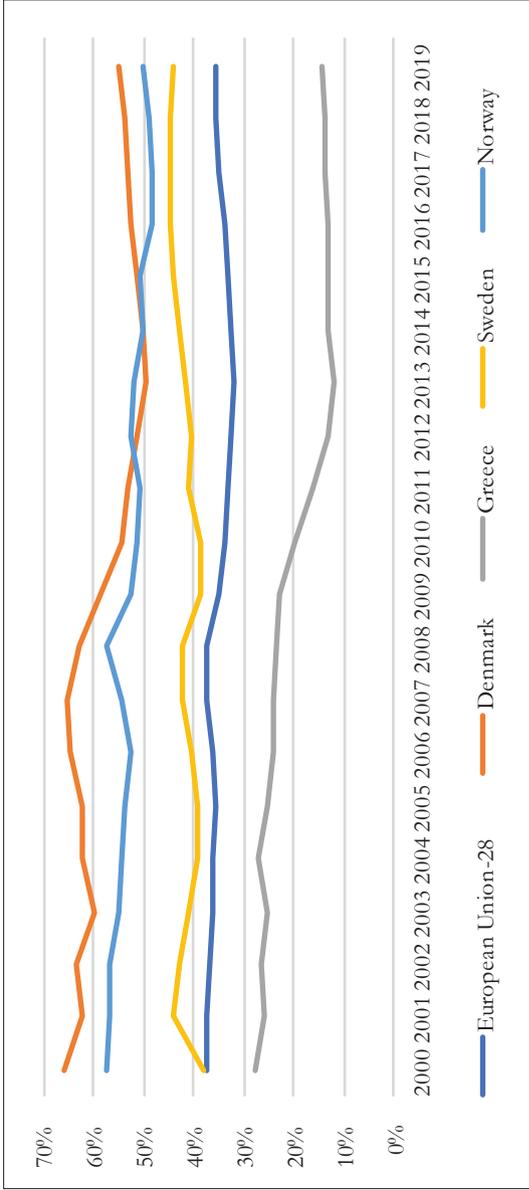
across the Scandinavian countries. Then we describe measures directed at young people, more specifically the active labour market policies for young in Scandinavia. Activation measures are to a large extent pointed out as the solution to youth unemployment and marginalisation of some groups of young people in the labour market. We also comment on some of the challenges remaining for young persons, in particularly improving labour market participation among young school dropouts and young with immigrant backgrounds and, in Norway in particular, reducing the young depending on health-related benefits.

8.8.1 Youth employment

Young people have a lower employment rate than adults in all Scandinavian countries. Denmark and Norway have the highest share of young persons in employment, at around 50 percent. This is, however, considerably lower than for the adult population where employment levels are close to 80 percent. Sweden has the highest overall employment rate in Europe at around 82 percent, but the employment level for the young is measured at 43.9 percent, making the gap between youth employment and adult employment particularly large in Sweden. Despite these large gaps, Scandinavian countries nevertheless have a higher youth employment level than the EU-28 average (35.8 percent) and considerably higher than, for example, Greece (14.6 percent).

The main strategy for Scandinavian countries is that young people complete at least upper-secondary education. A lower employment rates among young people is therefore not necessarily considered a policy problem, as long as educational attainment remains high.

Figure 8.12
 Employment rate by country, 15-24 age group, 2019



Source: Eurostat, Labour Force Survey.

Employment rates are here measured using the Labour Force Survey that picks up everyone who has been in work at least one hour during the reference period. This means that part-time work is also included as employment and the statistics therefore reflect that young people may combine part-time work with education.

The employment rates for young people have been sensitive to the economic recession and fell in all countries after the 2008/09 economic crises but have since recovered. Over the past decades, youth employment rates have become more similar in Scandinavian countries than what they were at the beginning of the century.

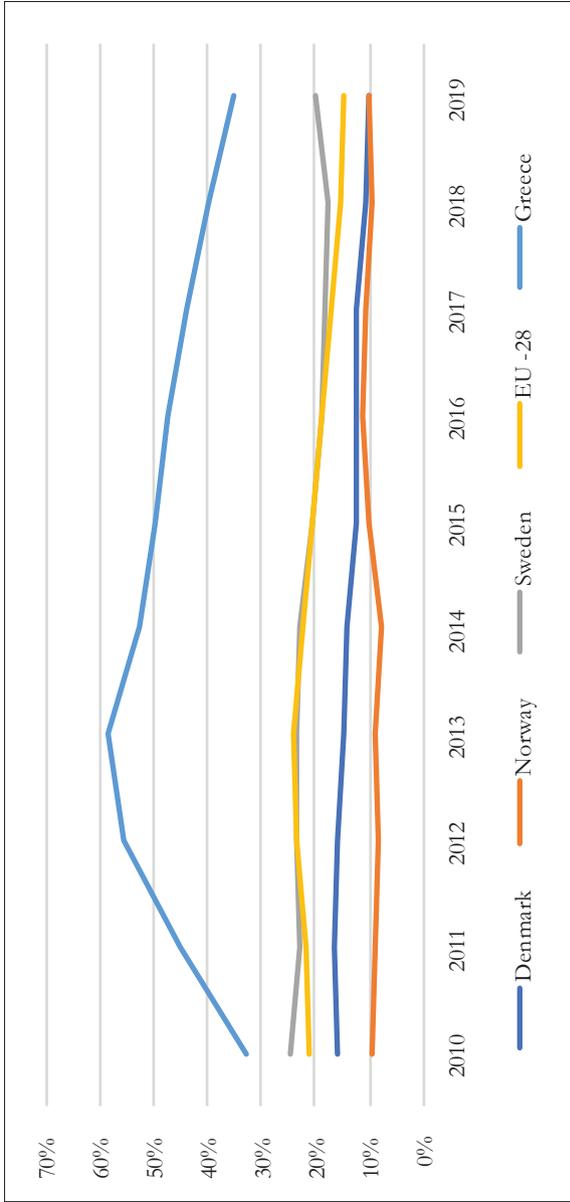
For the young there is a reversed gender gap in employment in Scandinavia, with women having the highest employment rates. The reversed gender gap is largest in Sweden where the employment rate of young women is 2.2 percent higher than that of young men. The EU-28 have a traditional gender employment gap in the young population, with men having about 4 percent higher employment rates than women. In Greece, the gender gap is 2.7 percent for the young in favour of men.

It should be noted that cross-national comparisons of employment rates might be difficult, as Norway and Denmark have a large proportion of young people in apprenticeship training, which counts as employment, boosting employment rates for the young. Whereas Sweden has a more school-based vocational training where these young people are not considered part of the workforce and not included in employment statistics (Olofsson & Wadensjö 2012)

8.8.2 Youth unemployment

The larger economic trends in a country influence youth unemployment. When the economy stagnates, youth unemployment tends to increase. Norway has had the lowest youth unemployment rate over time, while youth unemployment has decreased in Denmark. Sweden has youth unemployment in line with the EU-28 average.

Figure 8.13
 Youth unemployment rate by country, 15-29 age group, 2007-2019



Source: Eurostat, Labour Force Survey.

In 2019, unemployment levels were at around 10 percent in both Norway and Denmark for the 15–24 age group, compared to 20 percent in Sweden.

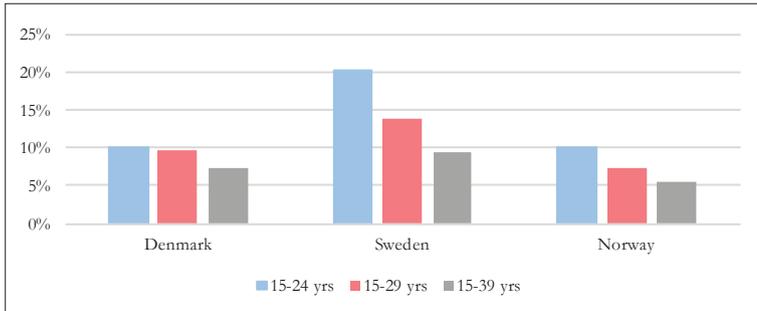
Compared to the adult population (20–64 age group) youth unemployment in Scandinavia is more than three times higher. It is worth noting that unemployment here is measured as those who respond in the LFS that they are actively seeking work and are ready to start a job within two weeks. This may also include students who are seeking part-time or seasonal work. In addition, technical differences may influence unemployment measures. For example, if student grants also cover vacation periods, the tendency for young people to register as unemployed decreases. Such technical differences make the unemployment statistics less suitable for cross-national comparisons for the young population. The Swedish data registrations of unemployment levels are especially sensitive to age group (see figure 8.14). The differences in unemployment levels between the Scandinavian countries are largest for the youngest cohorts.

There is relatively little variation in youth unemployment rates between women and men in Scandinavia. The largest gender differences are in Norway, where the unemployment rates are higher for young men than for young women (measured for the 15–29 age group).

However, as noted above, youth unemployment rates are not necessarily useful in terms of illustrating labour market prospects for young people. Some differences may occur because of differences in educational systems and differences in registering as unemployed. NEET rates, measuring inactivity levels among the young population, therefore supplement employment and unemployment statistics for young persons.

Figure 8.14

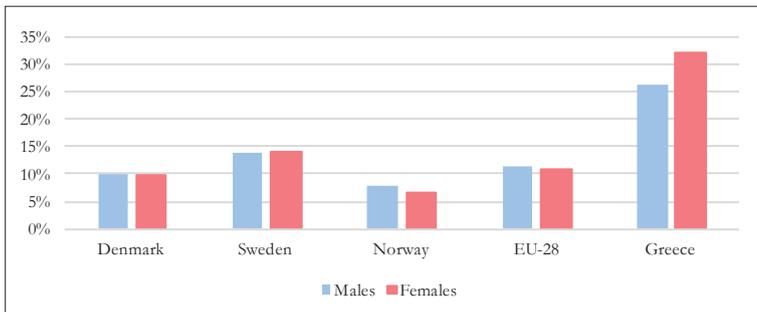
Youth unemployment rates by country and different age groups, 2019



Source: Eurostat, Labour Force Survey.

Figure 8.15

Youth unemployment rates by country and gender, age group 15–29 years, 2019



Source: Eurostat, Labour Force Survey.

8.8.3 NEETs

The NEET rate (the share of NEETs over the total population of the same age) refers to a broader measure of youth vulnerability

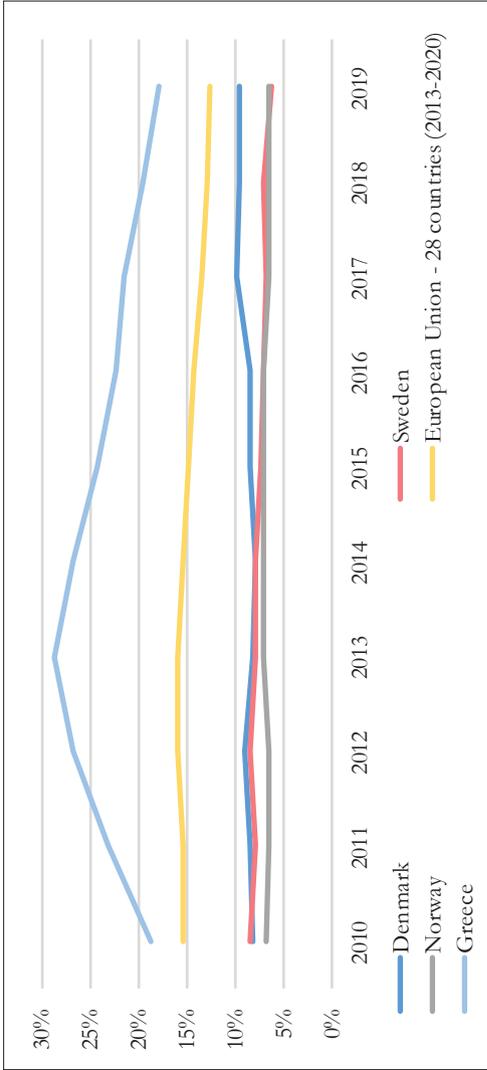
than the unemployment figures. The acronym stands for ‘Not in Employment, Education and Training’ and refers to different subgroups of young people who are not working, including the unemployed as well as inactive, and young people not taking part in education. NEETs are not a homogeneous social group and may conceal different reasons for youth disengagement.

NEET rates are in Scandinavia well below the EU-28 average of 12.5 percent, with some variations between the countries. Norway and Sweden in 2019 both had NEET rates at around 6.5 percent in the 15–29 years age group, and Denmark around 10 percent. The comparative NEET rate for Greece was 17.7 percent. This may be interpreted as young Scandinavians having a better integration to education and to the labour market compared with the average of European countries.

NEET rates in Scandinavia have remained relatively stable over the last decade and appear less sensitive to macroeconomic changes than youth unemployment rates. In a country like Greece, for example, the NEET rate increased sharply with the economic crisis in 2008/09. This signals that the NEET population in Scandinavia constitute a small, but vulnerable group of young people, with weak ties to the labour market.

The NEET group in Scandinavia is a marginalised group of young people. It has been documented that young people with a low education level are more at risk of being NEET. The same applies to young people with immigrant backgrounds (OECD 2016, OECD 2018). Compared with the rest of the EU, where women tend to have a higher likelihood of being NEET, in particular in Southern Europe, there is a low gender gap in the NEET group in Scandinavia.

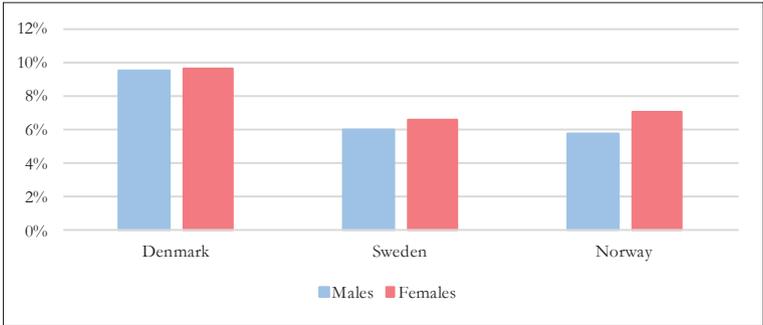
Figure 8.15a
NEET rates by country and age group 15-29 years, 2010-2019



Source: Eurostat, Labour Force Survey.

Figure 8.16

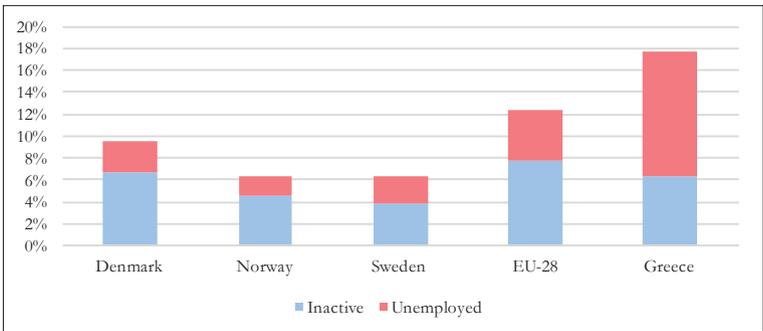
NEET rates by country, gender and age group 15–29 years, 2019



Source: Eurostat, Labour Force Survey.

Figure 8.17

NEET rates by activity status, inactive and unemployed by country, age group 15 – 29, 2019



Source: Eurostat, Labour Force Survey.

The NEET population may be divided into those who are unemployed and therefore actively seeking work, and those who are inactive. A large majority of the NEET group in Scandinavia is characterised as inactive. This is different to Greece, for example,

where the majority of the NEET population is unemployed. Denmark and Norway have the highest share of inactive NEETs where about 7 out of 10 NEETs are inactive. In Sweden, this applies to 6 out of 10, in line with the EU-28 average. The situation is opposite in Greece where about 3 out of 10 NEETs are inactive.

8.9 Youth-oriented active labour market policies

A general policy concern for youth unemployment in Europe, including Scandinavia, has led policy makers to adapt measures focusing on the young population out of work, developing youth-oriented active labour market measures. This may include separate programs just for young people, but also the prioritisation of young unemployed individuals in the selection of candidates for particular programmes. According to Caliendo & Schmidl (2016) the primary objective of ALMPs for youth is to integrate unemployed youth into the labour market, stabilise their career entry, and/or to promote the take-up of vocational training as an intermediate step to labour market entry.

In the Scandinavian countries, a large share of the youth population successfully complete education. The pool of young adults who are in the target group for activation measures thus consists of individuals with low qualifications, no previous labour market experience and who have dropped out of secondary school. This also includes a high proportion of young persons with immigrant backgrounds (OECD 2016, 2018). Within a workforce consisting of high skilled workers, many of whom possess a tertiary degree, the young people targeted by activation measures are therefore a very disadvantaged group, and correspondingly difficult to integrate into the labour market. The success rate of activation measures or ALMPs directed at the young in Scandinavia must therefore be seen in relation to the vulnerability of the group it sets out to help.

There is not a uniform definition of what is included in ALMPs or activation measures. The majority of activation measures will be directed at the unemployed population in general, however, Scandinavian countries have, in-line with many other EU countries, adopted a range of youth-oriented active labour market policies (Torsun et al 2017, Olofsson & Wadensjö 2012). This does not mean that the majority of activation measures in Scandinavia are directed at youth. A study based on OECD data from 2012 which compared the share of unemployed youth participating in ALMP to the share of unemployed adults participating in ALMP, showed that Denmark, Norway and Sweden all demonstrated an under-representation of youth compared to adults in ALMPs (Caliendo & Schmidl 2016, Table 1, Column 9).

Updated cross-national overviews of youth-oriented activation measures in Scandinavia are generally lacking. One of the few existing comparative overviews was carried out by Olofsson & Wadensjö (2012) and points out both similarities and differences in Scandinavian youth activation measures, as outlined below. Newer developments in the policies in Denmark and Sweden are therefore not commented on here. For Norway, the summary below also includes the most recent national changes to the youth activation policies.

8.9.1 Danish activation measures for the young

Danish measures for counteracting youth unemployment have focused mainly on training, as opposed to employment. This has taken the form of reference production schools, for example, as well as shorter and more flexible variants of vocational training (Olofsson & Wadensjö 2012).

Furthermore, the Danes have put much effort into the coordination of services in the form of establishing job and training centres at the local level, partly as an outcome of the 2004 educational

and vocational training reform. The centres include various labour services such as job search assistance, as well as services directed at schools, in order to give individuals better opportunities for coordinated assistance. The use of individual action plans and long-term follow-up services and the monitoring of results after completed training are also included in the local centres.

Denmark has, in line with the other Scandinavian countries, a long track record of so-called youth guarantee polices, dating back to the 1990s. The purpose was to guarantee unemployed young persons an activation measure, primarily training. Initially, the guarantee was directed at 18-19-year-olds without access to unemployment benefits. Today the system is expanded to young adults under the age of 30. The youth guarantee operates with a strict sanction regime, where social assistance for those who reject offered activity or training is reduced.

Although the activity requirements are stringent, the generosity of the social assistance pay-out is also a hallmark of the Danish system, as are generous unemployment pay-outs. This is a feature of the Danish system referred to as “flexicurity”, where the combination of generous compensation systems, activation measures and the absence of legally enshrined job security are to facilitate mobility and job matching in the labour market (Olofsson & Wadensjö 2012).

8.9.2 Swedish activation measures for the young

Sweden has a youth guarantee aimed at providing those under the age of 25 with some form of activity before 100 days of unemployment have passed. It is a responsibility of the municipalities to track down young people under 20 years of age who are not studying. Sweden also passed a law in 1998 making social assistance to the unemployed young conditional. In Sweden, there has been a somewhat greater problem of coordination of services than

in Denmark and Norway and there have been changes in organisation and responsibility. The sharing of responsibility between secondary schools, social services and employment offices has been unclear. Activation policies for the young and the job guarantee (formerly called development guarantee) were previously financed by the national Labour Market Administration but organised by the municipalities. This system has, however, changed and been replaced by a job guarantee for the young organised by employment agencies which are separate from the municipalities (Olofsson & Wadensjö 2012).

Furthermore, the responsibility of municipalities has primarily been limited to keeping themselves informed about youth unemployment and has become less about direct follow-up of the unemployed youth. The municipalities have not been required to contact unemployed youth or apply activation measures. In addition, the responsibility has been limited only to young people under the age of 20. In Denmark and Norway there has been less interest in the age of the young person and activation measures has been more about reaching out to youth and young adults who have not completed upper-secondary school (Olofsson & Wadensjö 2012).

Compared to the other Scandinavian countries, training measures have played a lesser role in Sweden. High unemployment rates among young persons in Sweden, in combination with many young Swedes not completing upper-secondary school, have not been compensated by targeted training measures, as for example in Denmark and to some extent Norway. These countries offer less demanding vocational training programs to unemployed youth. In addition, labour market training has in Sweden been targeted more at the over-25-year-old population. This has limited the vocational training opportunities for young Swedes who do not complete upper secondary school (Olofsson & Wadensjö 2012).

In Sweden, there is also a sharper distinction between the standard education system and job training within the labour market

policy. The Swedish policy has been dominated by a perception that formal education should not be offered within the framework of labour market policy, as it would be unfair and create incentive problems in the training area if a large number of young people have their vocational training funded by activation measures, whilst other students have to apply for student funding. However, in Denmark this has been assessed differently, where the completion of upper secondary school has been seen as a right. In Denmark, training for young people has been supported and it has been argued that the young who are at the margins of the education system are also at the greatest risk of becoming socially marginalised, and an emphasis has therefore been on targeting training initiatives for this vulnerable segment of low-educated young people. In Sweden, there has been little of such initiatives (Olofsson & Wadensjö 2012).

Although it is generally difficult to measure the effectiveness of ALMPs, it is worth noting that Sweden is the Scandinavian country with the highest levels of youth unemployment. This may be because of fewer activation measures and less vocational training opportunities for vulnerable young Swedes.

8.9.3 Norwegian activation measures for the young

In Norway, activation measures for youth and young adults have been organised in the form of a youth guarantee. A special guarantee was made to activate the unemployed under the age of 20, and in the mid-1990s the system was expanded to include long-term unemployed aged 20–24. In addition, it was a target that 90 percent of the group of young persons registered at NAV, and who had reduced work capacity, should have an individual activation plan (Olofsson & Wadensjö 2012).

In 2017, the previous youth guarantees for the young in Norway were abandoned and instead replaced with a new youth effort

targeting all those unemployed under the age of 30. The new youth effort still takes the form of a youth guarantee where NAV offices (PES) are obliged to give an individual in the under-30 population a work-related offer within eight weeks of registering as unemployed. The measures offered must take the form of individual work-plans, participating in job clubs, close follow-up from the NAV, as well as different form of labour market programmes, work placements or school-based training (Strand et al 2020).

Norway has also put a great emphasis on the coordination of labour services. Most importantly in this context was the NAV reform from 2006 whereby the two national security agencies were merged into one and localised together with the municipal social services, into one-stop shop offices named NAV offices (Norwegian Labour and Welfare Service). NAV have offices in every municipality and are responsible for the execution of the activation polices in Norway, including services to the young unemployed based on individual action plans and long-term follow up.

Work placements have been the dominant element of the Norwegian youth guarantee, and from the mid-1990s there was a shift from an emphasis on training towards an emphasis on work. Work placements still constitute an important part of the activation measures for the young in Norway, but over the past decade there has again been a stronger emphasis on training initiatives. This goes together with the policy goal of trying to get as many young as possible to complete upper-secondary school. NAV have over the last decades developed a stronger collaboration with the formal education system at upper-secondary level, and job placements are more frequently combined with vocational training and/or apprenticeship arrangements.

Norway has, in line with the other Scandinavian counties, also introduced conditionality for social assistance recipients, and from 2017 Norway has introduced an activity condition for all social assistance recipients under the age of 30, where young social

assistance recipients have to participate in activation programmes, and non-compliance leads to sanctions.

A particular concern in the Norwegian context has been the high share of young people receiving a health-related benefit called work assessment allowance. There is no particular reason to think that Norwegian youth have poorer health compared to their Scandinavian counterparts. The high number of young people on health-benefits is to be interpreted as an outcome of the specific design of the Norwegian benefit system that is open for all those unemployed with a reduced work capacity due to a health problem to receive work assessment allowance for a period of up to three years. This particular allowance provides a higher and more stable pay-out than, for example, social assistance. A closer examination of the young people receiving work assessment allowance reveals that close to 70 percent of the young recipients gain access to the allowance because of a mental health problem, such as anxiety or depression. In the Norwegian welfare debate particular concern has therefore been directed at a potential medicalisation of youth unemployment in Norway, where vulnerable young school drop-outs are provided a mental health diagnosis, and thereby access to income security, instead of proper help to complete education or to gain access to the labour market (Fevang 2020). Very recent shifts (from 1st February 2020) in the welfare system have tried to address this problem, and pay-outs of work assessment allowance for those under the age of 25 have been reduced.

8.9.4 Challenges

- Unemployment levels are about three times higher for young people than for adults in Scandinavia. In addition, a low but stable NEET rate signals that the labour market integration of young people remains at the peril of being excluded from the labour market.

- Research documents that youth with low educational level (not completed upper-secondary education), as well as youth of immigrant backgrounds, are particularly at risk of being unemployed or a NEET in Scandinavia.
- Activation policies such as training initiatives (in particular in Denmark) and job placements (in particular in Norway), in combination with conditionality for benefit recipients have, for the past few decades, targeted the young out-of-work population in Scandinavia. Yet, a small but stable proportion of young NEETs in Scandinavia illustrates that a low-educated group of young remains vulnerable and at high risk of unemployment and inactivity, and as such also represents a significant challenge to the foundation of the Nordic model which rests on a full employment strategy.

SUMMARY AND CONCLUSIONS

Dimitris Katsikas, Daphne Nicolitsas and Tone Fløtten



Young men and women are incompletely integrated into the Greek labour market. Many young people are either out of employment or are employed in jobs with unsatisfactory pay, working conditions or opportunities for professional advancement. This situation undermines their career –and ultimately– their life prospects. This is vividly illustrated by the responses to our youth labour market survey, in which more than half of the 25-to-29-year-olds and 38 per cent of the 30-to-34-year-olds said that they are still being financially supported by their families.

The unfavourable personal prospects of youth undermine the country's growth potential. Given the adverse legacy of the 2010s crisis, and the need to reform the national growth model, investment in Greece's human capital is of paramount importance for its economic future. The formulation of proposals as to how best to do this requires a detailed account of youth's place in the labour market, including through a gender perspective. This has been the principal aim of this study, which updates and complements existing work with new research to offer a comprehensive, up-to-date description and analysis of youth's status in the Greek labour market.

The analysis reveals a few structural trends that affect the integration of youth in the Greek labour market. First, the population of young people in Greece has fallen dramatically over the last twenty years, due to adverse demographic trends and the wave of

migration that took place during the crisis. As a result, the number of young people in the Greek labour force has declined from more than 1.9 million in 2001 to less than 1.3 million in 2019. Despite the trend in the overall youth population, the decline of the participation rate has been modest and concentrated in the younger age groups (15–24), who stay in education for longer and therefore enter the labour market later in life.

The improvement in young people's educational qualifications is the second major trend documented by our analysis. Though fewer, young people are clearly better qualified compared to past generations. Apart from the 15–19 age group, which includes young people who are still at school, the share of labour market participants whose highest credentials are from lower secondary education or below has fallen to single digits in every age group. At the same time, more young people choose tertiary education; student enrolment in Greece is the highest in the EU. As a result, the share of economically-active tertiary education graduates aged 25–34 has increased from 25 per cent per in 2001 to 43 per cent in 2019. What is more, the role of education in the labour market seems also to have changed during the crisis, as both employment prospects and protection against unemployment have improved for the better-educated youth.

A third significant trend relates to the presence of young women in the labour market. While they continue to be less economically active than men, their share in the labour force has increased over the past twenty years. In 2001, for every 100 economically active men aged 15–34, there were roughly 76 economically active women in the same age group; by 2019, this ratio had changed to 86 women per 100 men. Similarly, the employment gap between men and women aged 15–34 has narrowed. Before the fiscal crisis, convergence was slow but positive as more women entered employment; after the crisis, convergence accelerated, a development however, driven by the crisis impacting more profoundly on men

than women. While it is not clear whether the improvement in the employment share of women will continue, two factors give reason for optimism: First, the shift in the labour market noted above towards a more educated workforce favours women, as young women have more educational qualifications than young men; they account for roughly 60 per cent of recent post-secondary vocational and tertiary education graduates. Second, the increased opportunities for flexible employment after the crisis could also lead to a higher employment rate for women, as women tend to work more in part-time jobs.

The position of today's youth in the world of work has been heavily impacted by the crisis of the previous decade. Over and above the impact it has had on long-term trends, described above, the crisis is also responsible for the current level of youth inclusion in the labour market. The employment and unemployment rates for young people generally follow a similar pattern, irrespective of the type of analysis employed (age sub-groups, gender, educational qualifications): stabilization or a slight improvement during the pre-crisis period, followed by a sharp deterioration between 2009–2013 and a gradual recovery since 2014, though pre-crisis levels have yet to be reached. As a result, in 2019, the employment rate for people aged 15–34 was 41.2 per cent, ten percentage points lower compared to 2008. Similarly, the unemployment rate for the 15–34 age group stood at 25.5 per cent in 2019, almost double the 2008 rate. The impact of the crisis is also evident in the youth NEET rate, which peaked at 30.8 per cent during the crisis. Despite its decline since 2014, the NEET rate was still high in 2019 at 20.7 per cent, meaning that close to half a million young people were not in employment, education or training. Most of them are (long-term) unemployed. Finally, the crisis led to a significant increase in part-time employment; this mostly affected the younger age groups (15–24), who are more willing to work part-time, than the older age groups (25–34).

Unlike the crisis of the 2010s, the pandemic does not seem to have had a significant impact on the labour market, as the measures taken have protected people who were already in employment. The most significant impact relates to young people who wanted to enter the labour market but were unable to find a job given the adverse circumstances. The challenge now is to facilitate their transition into the labour market as the economy recovers, in order to avoid a new wave of long-term unemployed.

The crisis of the 2010s is a crucial factor that has affected the place of young people in the labour market, but it is not the only one. Another significant structural feature, which inhibits both the entry of young people into the labour market and their advancement once they are employed, is the mismatch between their educational qualifications and skills and those required by the economy. This problem relates to two other factors: First, the apparent inability of the Greek economy to absorb more highly qualified young people and second, the failure to connect the educational system to the economy.

The sectoral and occupational distribution of youth employment shows that retail and the food and beverage service activities are the sectors which predominantly employ young people. In these sectors, the young are typically employed in low- and middle-skill occupations. Given that the concentration of youth employment in these sectors further increased during the crisis, it seems that there have been two opposing trends in the labour market in recent years: on the one hand, Greek youth has continued to improve its educational qualifications, and on the other hand, young people are increasingly employed in occupations which are not knowledge-intensive, resulting in higher levels of over-qualification. Further analysis confirms that those who work in the wholesale and retail trade, accommodation and food and beverage services, and in agriculture, forestry and fishing are statistically more likely to be overqualified. Over-qualification leads to the

under-utilization of young people's potential, wasting public and private resources invested in education and training, and leading to lower job satisfaction and wages.

At the same time, the orientation of the Greek economy towards low value-added activities and products of low-to-medium technological content, explains why youth employment in sectors like telecommunications, manufacturing, computer programming and engineering remains at very low levels. When the share of employment in high-technology manufacturing and knowledge-intensive high-technology services in Greece ranges between 2 and 3 per cent (placing the country 25th in the EU in this regard), job opportunities for young graduates in such sectors are rare.

A review of available data on innovation and research activities, which are central for the transition to a knowledge-based economy, shows that the transformation of this growth paradigm will be difficult. The share of R&D personnel in total employment in Greece is low and most research activity, and therefore research employment, is concentrated in the country's universities, while the Greek business sector ranks 24th in the EU as an employer of researchers. The distribution of research employment affects the nature of the research output, which seems disconnected from productive activities.

The structural features of the Greek economy go some way towards accounting for the skill shortages that Greek businesses often report. The features of the economy's productive structure described above, prohibit companies from offering better salaries, terms of employment and learning opportunities to potential workers. Despite the difficulties they face finding a job, almost half of the respondents in our survey reported having rejected job offers in recent years, mainly due to low pay and unsatisfactory terms of employment; those who are in employment, report dissatisfaction with the learning and career development opportunities provided for them by their employers.

The mismatch between young people's qualifications and the economy's requirements also stems from the failure to connect the educational system to the economy. First, it is evident that the way in which youth make their educational and professional choices is inefficient. The survey shows that humanities, social sciences, education and law are popular fields, even though they appear to have poor professional prospects compared to other specializations. As a result, the incidence of horizontal mismatch is also high in Greece.

Rather surprisingly, vocational education graduates also report high rates of skills mismatch. This indicates that the design of many VET programmes is poor, and that they fail to address actual market needs. This is verified by the review of the literature on the VET system in Greece, which highlights *inter alia* the inefficient way study programmes are designed. This problem is not limited to VET but also extends to the higher education system; the increase in the number of academic departments and students' places that has contributed to the rising rate of tertiary education graduates over the past two decades, has largely occurred in scientific fields with low demand in the labour market.

More generally, there is an obvious failure on the part of public policy to facilitate the transition of young people from the educational system to the labour market. The lack of a mechanism for counselling students on their educational and professional options before they leave school, and the lack of support for the job-seeking process, lead to poor educational and professional choices. Moreover, the limited role of active labour market policies and VET limit young people's options with regard to acquiring work experience.

In recent years, governments seem to have started to acknowledge this failure, and several reforms have been promoted in relation to the VET system and to the operation of the Manpower Employment Organization responsible for job-seeking support

and active labour market policies. Implementation concerns aside, it is certain that these positive initiatives will prove insufficient unless the economy's productive structure is also transformed, cooperation between universities and the private sector improves, and a counselling mechanism for students is established, which is equipped to identify current and future trends in the labour market.

The low number of women in employment is another structural feature of the Greek labour market. That is why this study has emphasized the role of gender, focusing on the position of young women in the labour market and the related legal and policy framework. Despite the trend towards convergence described above, young women have still substantially lower participation and employment rates, as well as higher unemployment, long-term unemployment and NEET rates, than young men.

The turning point for young women seems to occur at the age of 25. Until then, young men and women are both in education for the most part, and the differences in their participation and employment rates are relatively small. However, after the age of 25, the participation rate for men increases more than it does for women; it continues to rise after the age of 30, while the women's rate remains stagnant. At the same time, after the age of 25, the employment rate for women plateaus at approximately 60 per cent and remains flat thereafter; conversely, their unemployment rate hits a lower limit in the area of 25 to 30 per cent. On the other hand, the employment rates for men continue to increase, reaching 80 per cent after the age of 30, while their unemployment rate continues to drop, to levels below 15 per cent. There are two reasons for this differentiation between the sexes after their mid-20s: first, a substantial number of women do not join the labour force due to family commitments; second, the demand for female workers is lower than the demand for male workers in these age groups.

Both factors relate to aspects of gender discrimination. Exiting the labour market due to family commitments is linked to

patriarchal attitudes, which are still widespread in Greek society. In addition to such attitudes, low demand for female labour is to some extent linked to the issue of maternity and the tendency common among employers to avoid hiring young women, since they consider them likely to start a family in the years to come. However, discrimination is not limited to labour market access. Women experience discrimination even after they find a job; pregnancy/maternity issues seem to be a source of problems with employers among employed women, as well. While the legal anti-discrimination framework and related policies are in line with international and European standards, they seem to be less effective in this respect. In addition, there is a gender pay gap between men and women. Research conducted for this study shows that the unadjusted gender pay gap is roughly 10 per cent; when age, educational level and sector of occupation are considered, but without correcting for self-selection, this drops to 7 per cent. It also appears that the gender wage gap is narrower for more recent cohorts. Finally, another form of discrimination is the so-called 'glass ceiling', as women find it more difficult than men to reach the higher echelons of a professional hierarchy.

The issue of discrimination is examined in our youth labour market survey. As expected, a larger share of employed female respondents report having experienced gender discrimination than men. This share becomes substantially larger when the respondents are women who are currently out of employment (unemployed or inactive). Although more research is needed in this respect, these tentative findings imply that discrimination may lead some women out of employment for long periods of time or even permanently. Another interesting finding is that employed women rate all types of discrimination as more important obstacles to career advancement than men. If this is an indication that women experience all types of discrimination more intensely, the implication is that gender functions as a sort of 'filter' for all other types of

discrimination, leaving women more exposed to discriminatory behaviour overall.

The discussion so far demonstrates the many difficulties that inhibit the integration of young women and men into the labour market. As documented by our survey, this situation leaves youth with the impression that they are being discriminated against due to their age and contributes to the problems of prolonged unemployment and labour market exit. It also contributes to the acceptance of jobs which require a level of qualifications lower than the one they possess or which are unrelated to their studies. This in turn, leads many young people into a vicious cycle of low job satisfaction, lack of effort, and unsatisfactory professional progress. In this context, for a large part of Greece's youth, attaining their overwhelming priority—a work-family life balance—seems almost impossible. Unsurprisingly, their assessment of public and labour market institutions is negative. Our survey participants are disappointed with the educational system, which they feel does not prepare them well for the transition to the labour market, while trust in trade unions is low irrespective of the respondents' socio-economic features or type of employment. In these conditions, almost one in three survey participants are thinking of leaving the country in the future.

A second objective of this study was to draw on the expertise of Fafo and present the Nordic countries' experience, given their widely acknowledged success in the integration of young people and women into the labour market. Despite the obvious differences between their economies and that of Greece, their policies and best practices can prove a source of inspiration for Greek policy makers in two ways. First, the Nordic countries have achieved very high participation and employment rates, which is to say that they have largely resolved the problem of the underutilization of their human capital, which is the focus of this study. These countries have endorsed an 'active society' doctrine, which views

employment as a route to personal self-fulfillment and national economic prosperity. Accordingly, they have developed a system which aims to ‘activate’ people by integrating them into the labour market. In terms of youth, this has involved an array of policy tools including active labour market policies intended to achieve swift school-to-work transition (STW), a well-established VET system, and localized and targeted policies for NEETs. Gender-related policies include a well-developed childcare system, generous parental leave with fathers’ quotas to encourage a more even distribution of parental leave between men and women, and the assigning of gender equality activity and reporting duties to the state, to social partners, and most importantly to employers.

Over and beyond these successful policies, learning can also occur in relation to the unresolved labour market issues, which, despite their accomplishments, Nordic countries still face. In relation to youth, these include a substantially higher youth unemployment rate (compared to the general population), a low but persistent share of marginalized NEETs, and an increase in atypical employment, which complicates and delays the integration of young people into full-time regular employment. On the gender front, both the gender-based segmentation of the labour market and the higher levels of part-time employment among women impact adversely on their earnings and career prospects, contributing to the gender pay gap and the glass ceiling problems.

Greater efforts have been made to address many of the issues raised in this study since the onset of the financial crisis in Greece. However, gaps are evident in the design of the reforms that have been promoted, while there are areas where progress is clearly lacking, such as for example, the closer link between education and the labour market, incentives for high-tech firms to expand and employ youth, and a more comprehensive approach to education which would imply close collaboration between the Ministries of Education, Labour and the Manpower Services Organization.

There is also lack of any structured and significant contribution by the social partners, and this stands out as a significant difference from the Nordic countries where social partners view full employment as part of their responsibilities. As a result, major challenges remain. In this context, there is significant scope to learn both from established and successful policies in the Nordics, as well as from current policy initiatives and debates regarding problems that persist. In addition, and perhaps most importantly, Greece can learn from the Nordic countries' experience in devising a holistic strategy in line with economic needs and social priorities. Given the need to transform the country's growth model, and current efforts to do so included in the National Recovery and Resilience Plan, this could be an extremely valuable lesson to learn.

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