



# Comparing Social Policy in Europe\*

A Statistical Documentation

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#### Abstract:

This background study presents statistical data on social policy in the dimensions of poverty prevention, equitable education, labor market access, social cohesion and non-discrimination, health and intergenerational justice. For each field, we discuss main indicators as well as potential determinants of the status quo. We use data on the 28 EU member states and compare the national approaches in these countries. The study serves as an input and prepares the compilation of the annual SIM Europe Reform Barometer report of the Bertelsmann Stiftung. Moreover, it complements the Social Justice Index Report by the Bertelsmann Stiftung in providing potential determinants and alternatives of the social policy indicators discussed there.

<sup>\*</sup> This internal background study is part of the larger SIM Europe project (Social Inclusion Monitor Europe – Reform Barometer), an initiative of the Bertelsmann Stiftung, and serves as an input to the annual report.

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#### **EXECUTIVE SUMMARY**

This internal background study presents statistical data on social policy in the dimensions of poverty prevention, equitable education, labor market access, social cohesion and non-discrimination, health and intergenerational justice. For each field, we discuss main indicators as well as potential determinants of the status quo. We use data on the 28 EU member states and compare the national approaches in these countries. The study serves as an input and prepares the compilation of the annual SIM Europe Reform Barometer report of the Bertelsmann Stiftung. Moreover, it complements the Social Justice Index Report by the Bertelsmann Stiftung in providing potential determinants and alternatives of the social policy indicators discussed there.

# 1 Introduction

Member states of the European Union differ in approach and extent of social protection. They may follow different welfare models (see, for example, the classification in Esping-Andersen, 1990) and offer varying levels of protection and generosity. Social insurance and redistribution are basic functions of government. Redistribution policies are concerned with the fairness of market outcomes and explicitly take away from the better off and give to the worse off to achieve a more equitable distribution of welfare. Social insurance is fundamentally different and involves no redistribution - cross-subsidization in the language of insurance economics - if social security contributions and benefits are related in an actuarially fair manner. While actuarially fair insurance is free of redistribution ex ante, it necessarily redistributes ex post from the lucky ones to the unlucky. Insurance provides services with individually attributable value that can, in principle, be traded on competitive markets. Social insurance therefore corrects market failures arising from distortions such as adverse selection, moral hazard and individual short-sightedness and is part of the allocative responsibility of government in a market economy (see Pestieau, 2005, for an overview). While conceptually different, it is sometimes difficult to determine in practice where insurance ends and redistribution begins since many insurance programs involve crosssubsidization and therefore do not clearly separate insurance and redistribution.

The extent of social insurance should, in principle, reflect deep individual characteristics and other parameters such as risk-aversion and the degree of income risk in an economy (Chetty, 2008; Chetty and Finkelstein, 2013). It should include some flexibility and freedom to choose according to varying individual needs. The extent of redistribution should reflect the degree of inequality aversion in societies which derives from a reasonable consensus view of varying individual attitudes, and the economic costs of redistribution in terms of the distortions created by the tax transfer mechanism (see Spadaro et al., 2015, for an economic approach). Given a different social consensus or divergent economic structure, the design of the welfare varies across countries. Given that globalization and rapid technological change affects social risks and the distribution of outcomes, the need for insurance and redistribution also changes over time. So there is no one size fits all approach to social inclusion (see Andersen et al., 2007, and Davoine and Keuschnigg, 2015).

Inequality and social risk are reduced ex ante by education and family policies that encourage upward social mobility and competition policies that eliminate monopolistic structures and facilitate access to rewarding professions and profitable markets (Chetty et al., 2014). Instead of repairing ex post via the tax transfer mechanism and spending on social insurance and the supply of social services, precautionary policies for inclusive growth (Acemoglu and Robinson, 2013) may prevent risk, inequality and poverty to arise in the first place.

This background study collects statistical information across 28 EU member states and attempts a portrait of different welfare state models. It also prepares and formulates

arguments that could potentially be useful in the main SIM report which will otherwise be based on the results of the expert survey. To fulfill this purpose, the background study must follow the same structure as the SIM report. The study is organized as follows. Chapter 3 presents the relevant figures in the domain of poverty prevention. Chapter 4 is devoted to equitable education and discusses predominantly the returns to education as well as the shares of people in different types of education. Chapter 5 turns to labor market policies and presents the relevant indicators, Chapter 6 is on social cohesion and non-discrimination, Chapter 7 on health status and health policies and Chapter 8 on intergenerational justice. Chapter 9 concludes. Each of the policy chapters 3 to 8 is organized as follows. Alongside a comparative discussion of policy parameters, the main indicators of the relevant field are presented first. Afterwards, we present and discuss potential determinants for the status quo.

For the sake of clarity and concise presentation, the graphs and tables in chapters 3 to 8 do not present data on all 28 EU member states, but weighted averages for the Anglo-Saxon Region (Ireland, Malta, United-Kingdom), Continental Europe (Austria, Belgium, France, Germany, Luxembourg and the Netherlands), Eastern Europe (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia), the Nordic countries of Denmark, Finland and Sweden as well as Southern Europe (Cyprus, Greece, Italy, Portugal and Spain). Full tables including data on all 28 member states are moved to the Appendix.

# 2 Poverty Prevention

## 2.1 Introduction

The European platform against poverty and social exclusion is one of seven flagship initiatives of the Europe 2020 strategy for smart, sustainable and inclusive growth (EC, 2016). Different social protection systems are designed to provide protection against risks of, for example, poverty and social exclusion. Social inclusion among others should enable people to participate in society and to improve their well-being – especially people who are living in or threatened by poverty. To fight poverty, the EU-Commission recently committed 3.8 billion Euro to help the most vulnerable in Europe (EC, 2015).

Poverty is the strongest determinant of social and economic exclusion of young people (SIM Europe, 2016). Thus, we look at poverty among young people, but also identify other risk groups and furthermore consider geographical differences among EU-28 member states. In addition, we fix various reasons for poverty and discuss instruments to reduce or prevent poverty.

Some years ago, Lelkes and Zólyomi (2008) made a general assessment of the poverty situation across Europe in their report "Poverty across Europe". The report depicts differences among countries and discusses the sensitivity of the displayed numbers to the underlying metric by which poverty is measured. Different risk groups are researched as well as the most likely causes of poverty in different EU countries. The underlying data was EU-SILC<sup>1</sup>, the main metric of poverty measurement disposable income with considering a person receiving less than 60% of the national median as poor. The rates varied across Europe: Low levels of poverty characterize Scandinavian countries, the so-called Corporatist countries (Austria, Germany), and the Czech Republic, Slovakia and Slovenia among the ex-socialist countries. In contrast, the risk of poverty tended to be relatively high in the Mediterranean and the Baltic states. The authors tested the sensitivity of the measurement by assessing poverty also with 50% and 70% of the national median income as a metric. However, with few exceptions the ranking seemed to be robust with regard to the different measurements. Important demographic factors appeared to be age and household structure. Children and elderly are more likely to be poor as well as households with greater number of children and one-adult households (both with and without children).

In the following we analyse whether those main findings regarding geographical and structural determinants of poverty across Europe are still true for the years from 2008 to today.

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<sup>&</sup>lt;sup>1</sup> European Union Statistics on Income and Living Conditions.

#### 2.2 Main Indicators

We identify the following indicators for poverty in EU-28 member states:

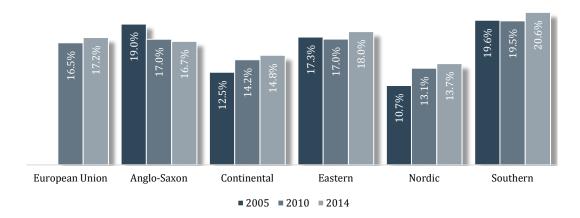
- At-risk-of-poverty rate
- In-work at-risk-of-poverty rate
- Households with very low work intensity
- Deprivation rate

#### 2.2.1 At-risk-of-poverty rate

A main indicator describing poverty is the poverty rate. More specifically, the "at-risk-of-poverty rate" is most frequently defined as the threshold of 60% of median equivalised income after social transfers.<sup>2</sup> It represents the level of income that is considered necessary to lead an adequate life. *Figure 3-1* gives an overview on the development of the at-risk-of-poverty rate within the last decade in the specified regions. For a discussion and country-wise values see the latest version of the Social Justice Index Report (Schraad-Tischler, 2015).

In 2014, 17.2% of total population in EU-28 faced the risk-of-poverty<sup>3</sup> with highest risk in Southern (20.6%) and Eastern (18.0%) European countries.





No data for EU-28 for 2005. Eastern (2005) without data of Bulgaria, Croatia and Romania. Source: Eurostat, 2016.

<sup>&</sup>lt;sup>2</sup> Alternatively, the "poverty rate" is often defined as 40% of median equivalised income. However, in our study we focus on the poverty risk

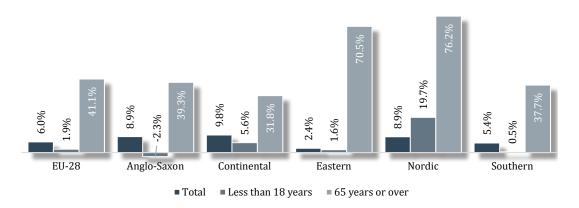
<sup>&</sup>lt;sup>3</sup> In addition to the "at-risk-of poverty" rate, the rate of "at-risk-of poverty or social exclusion" is an alternative indicator. In our study, we focus on the "at-risk-of poverty rate" since this is the rate we issue in the online-survey of the Social Inclusion Monitor (SIM). Naturally, more people are at risk of poverty and social exclusion than at risk of poverty. Lelkes and Gasior (2012) look at the "risk of exclusion" according to the Europe 2020 targets which is measured by three indicators: at risk of poverty, severe material deprivation and living in households with very low work intensity. According to this metric 113 million people in the EU are at risk of exclusion with the largest proportion of them, some 80 million people, earning less than 60% of the median income and are thus at risk of poverty.

The risk of poverty is by contrast lowest in Nordic countries with 13.7% and in Continental Europe (14.8%). The respective rates have increased since 2005 in all country groups except in Anglo-Saxon countries where the risk has fallen from 19.0% to 16.7%. People are faced highest risk of poverty in Romania (25.4%) but also in Greece, Spain, Bulgaria, Estonia and Latvia with poverty rates above 20%. However, lowest rates are published for Czech Republic (9.7%) as well as for Slovakia, Denmark, Netherlands and Finland with rates ranging between 11% and 13%.

# Females are slightly more at risk of poverty, especially female senior citizens

With respect to gender, one has to note that females (17.7%) face a higher risk than males (16.7%), both with highest risk in Eastern and Southern Europe when looking at total population. The rates for children less than 18 years are similar for females (21.3%) and males (20.9%) with lower rates for females in 12 and higher rates in 16 out of EU-28 countries. Gender effects are different for people aged 65 or over. While 15.8% of female senior citizens are at risk of poverty in EU-28, only 11.2% of male senior citizens are so. In every single EU-28 country the risk of poverty for females aged 65 or over is higher than for males. The risk for females is twice as much or more in six countries (all Baltic States, Sweden, Slovenia and the Czech Republic). In the figure below the higher risk rates for women or shown as percentage of the men's at-risk-of-poverty rate. The lower risk rate of female children in Anglo-Saxon countries is due to United Kingdom where the at-risk-of-poverty rate for males is 20.1% and for females 19.6%.

Figure 3-2: Difference between at-risk-of-poverty rate between males and females



Data of 2014. To read: In EU-28 the at-risk-of-poverty rate for females was 6.0% higher than the respective rate for males. Source: Eurostat, 2016.

# Higher risk for foreign-born people and children of foreign-born people

There are differences in the at-risk-of-poverty rate between total population and people with a country of birth other than the reporting country. While 15.2% of total population aged 18 years or over are affected by risk of poverty, 26.3% of those who were born in a foreign

country are. The situation is even worse for people born in a non EU-28-country whereas 30.1% of them face the risk of poverty.

The highest risk of poverty for people born in a non-EU-28 country is observed for Southern (39.0%), the lowest for Eastern European countries (12.1%). It is remarkable that the risk for those people in Eastern European countries is lower than for people born in these countries. The opposite is true for all other regions in Europe.

Table 2-1: People at risk of poverty by place of birth

	Parent's place of birth: reporting country			Parent's place of birth: Foreign-born			People born in reporting country			People born in a non EU-28 country		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	n.a.	18.8	18.3	n.a.	31.5	32.7	n.a.	14.6	15.2	n.a.	28.8	30.5
Anglo-Saxon	20.9	19.2	16.7	31.3	23.4	27.5	17.1	15.3	15.1	n.a.	26.3	24.6
Continental	11.6	14.8	13.2	23.2	29.4	27.8	11.2	12.4	13.3	n.a.	26.8	25.9
Eastern	24.8§	23.1	24.7	18.3§§	25.1§§	25.0§§	15.5	15.7	16.2	n.a.	15.5%	12.1%%
Nordic	7.9	8.2	8.3	21.2	29.5	26.1	10.1	12.1	12.6	n.a.	29.9	28.9
Southern	23.0	22.4	22.6	30.5	41.0	42.6	18.2	16.5	17.2	n.a.	33.4	39.0

People aged 18 or over. § Without data of Croatia and Romania. §§ Without data of Romania (2005, 2010, 2014), Bulgaria (2014) and Croatia (2005). % Without data of Romania. %% Without data of Romania and Slovakia. n.a. not available. Source: Eurostat, 2016.

The risk of poverty of children less than 18 years also depends on the place of birth of their parents. While 18.3% of children are at-risk-of-poverty in EU-28 when their parents are born in the reporting country, which is true for 32.7% of children when their parents are born in a foreign country. The situation is worst for children from parents born in a foreign country in Southern Europe, leading by Spain (55.1%) and Greece (48.9%). Die smallest differences can be observed in Eastern European countries where the risk for children of native-born and foreign-born parents is similar.

The higher at risk of poverty for foreign-born people is also found by Lelkes (2007) who analyses the level of poverty among migrants in 14 European countries. He distinguishes between EU and non-EU migrants and empirically shows that these are in fact distinct groups in terms of exposure to poverty. Empirics show a high difference in exposure to poverty between EU and non-EU migrants. While non-EU migrants are highly in risk of poverty in large proportion, EU migrants tend to have better chances at the labor market, sometimes even better than the local population. This result is not surprising since EU migrants embody a predominantly highly skilled workforce, which exploits the opportunity of free movement of labor within Europe. Non-EU migrants on the other hand are often unskilled in significantly higher proportion than the local population and thus not as attractive to the labor market.

Another paper in respect of poverty and immigrants focuses on a question that seems to be currently more relevant than ever: "Do migrants receive higher welfare payments than locals?" (Barrett, 2013). Based on the European Union Survey on Income and Living Conditions for 2007 they find very little evidence that this is actually the case. However, and

in line with Lelkes (2007), they find that migrants are more exposed to the risk of poverty than the local population. They conclude with a result that opposes the ongoing discussion of excessive abuse of our welfare state by the immigrated population. They find that immigrants are exposed to poverty in higher rates while at the same time receiving less welfare payments. The arousing question is if welfare systems fail to protect immigrants and if so, why.

### Higher risk for single parents

The risk of poverty is higher for single households with dependent children<sup>4</sup>. While 25.1% of single persons without children face a risk of poverty in EU-28, 32.5% of single parents with dependent children do so. When comparing the European regions we note the risk of poverty in Nordic countries for a single person is outstanding high (31.4%). The opposite is true for single parents with dependent children. While in all regions the risk of poverty for this type of household is much higher than for a single person, in Nordic countries it is even lower (24.7%). Risk however increases most in Southern Europe from 22.2% to 38.3%. The lowest risk of poverty for households with two adults and two dependent children again is observed in Nordic countries (5.4%). 14.9% of this type of household are at risk of poverty in EU-28 with highest risk in Southern European Countries (22.9%).

Table 2-2: People at risk of poverty by type of household

	Si	ingle Persoi	n		gle parent w endent child		Two adults with dependent children		
	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	n.a.	25.4	25.1	n.a.	37.1	32.5	n.a.	15.0	14.9
Anglo-Saxon	27.3	26.7	26.9	38.3	36.5	29.1	13.8	12.4	13.2
Continental	20.6	23.2	25.0	26.3	37.8	31.8	8.7	9.7	9.9
Eastern	19.3§	26.1	22.6	37.4§	34.1	31.5	18.8§	18.4	17.8
Nordic	23.8	28.9	31.4	20.5	26.6	24.7	4.6	6.5	5.4
Southern	29.9	27.1	22.2	36.4	42.0	38.3	22.1	22.3	22.9

<sup>§</sup> Without data of Bulgaria, Romania and Croatia. n.a. not available.

Source: Eurostat, 2016.

These observations coincidence with findings of Iacovou (2013) who looks at the relationship between household composition and several measures of income insufficiency, in particular relative poverty and subjective hardship. He uses EU-SILC data to calculate the risk of poverty and hardship by household type for all countries in the EU. The interesting finding is twofold. First, the importance of household composition in being exposed to poverty risk varies greatly among different countries (i.e. national public policy matters) and secondly, the characteristics of a household being at risk of poverty are the same in all European countries: lone parents, single elderly people, and other single-adult households.

<sup>&</sup>lt;sup>4</sup> Dependent children are individuals aged 0-17 years and 18-24 years if inactive and living with at least one parent.

#### People at risk of poverty by degree of urbanisation

There is a correlation between the degree of urbanisation and people at risk of poverty. 16.4% of people living in cities were at risk of poverty in 2014, but 20.2% of people living in rural areas. However, this higher risk for people living in rural areas is not true for all EU-28 member states. In fact, there are two groups of EU-countries: The risk is (much) higher when living in rural areas in Eastern and Southern Europa (26.0% each) than in cities (9.8% and 15.6% respectively). At risk of poverty in rural areas is highest in Romania, Bulgaria and Malta. The opposite is true for Anglo-Saxon, Continental und Nordic countries where the risk for people living in rural areas is lower than in cities. One reason may be that in the latter high-income people move away from cities to rural areas to live there whereas in Eastern and Sothern European countries, there is a lack of jobs in rural areas and people move to cities to work there.

Table 2-3: At risk of poverty by degree of urbanization

			, ,							
		Cities		Tow	ns and sub	urbs	Rural areas			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	15.2	16.4	n.a.	14.7	15.8	16.9	20.6	20.2	
Anglo-Saxon	18.6	18.0	18.2	15.4	14.6	14.5	14.0§§	13.8§	15.0	
Continental	13.1	15.5	17.1	11.2	12.2	14.5	22.6	14.9	13.3	
Eastern	11.6§§	8.9	9.8	15.5§§	14.9	15.6	11.1	23.2	26.0	
Nordic	11.2	14.0	14.8	9.5	11.5	12.4	25.7	13.0	13.9	
Southern	16.2	17.0	18.7	20.3	19.9	20.0	16.9	23.8	26.0	

<sup>§</sup> Without data of Malta. §§ Without data of Croatia and Romania. S§§ Without data of Croatia, Lithuania and Romania. n.a. not available.

Source: Eurostat, 2016.

#### 2.2.2 In-work at-risk-of-poverty rate

Naturally, employment reduces the risk of poverty significantly, but does not eliminate it. In other words, a job does not always protect people from the risk of poverty because of low pay, low skills, precarious employment, low work intensity or involuntary part-time working. In 2014, the so-called in-work at-risk-of-poverty rate was 9.5% in EU-28, ranging from 5.9% in Nordic to 11.7% in Southern European states. However, even if people in employment are less exposed to risk of poverty than other groups, they represent a large share of those at risk of poverty, since a large part of the adult population is at work (Eurostat, 2009).

Since 2010, the risk has risen in all European regions with an increase of about 25% in Continental and Anglo-Saxon countries. In Nordic and Eastern countries, the respective risk has increased slightly by about 3%.

Table 2-4: At-risk-of-poverty rate and in-work at-risk-of-poverty rate

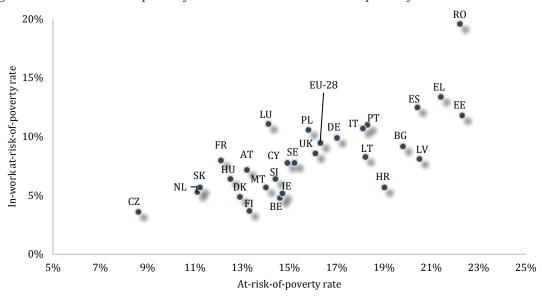
	At-r	isk-of-poverty	rate	In-work at-risk-of-poverty rate of employed persons				
	2005	2010	2014	2005	2010	2014		
EU-28	n.a.	15.5	16.3	n.a.	8.3	9.5		
Anglo-Saxon	17.9	16.1	16.0	8.0	6.7	8.4		
Continental	12.2	13.4	14.4	5.4	6.6	8.4		
Eastern	15.4§	15.6	16.4	10.6§	10.2	10.5		
Nordic	10.9	13.3	14.1	4.8	5.8	5.9		
Southern	18.5	18.0	19.3	10.0	10.4	11.7		

People aged 18 years and over. § Without data of Bulgaria, Croatia and Romania. n.a. not available.

Source: Eurostat, 2016.

Moreover, there is a correlation between the risk of poverty and the in work at risk of poverty. EU-28 member states with a high risk of poverty like Romania, Estonia, Greece and Spain face a high risk of in work at risk of poverty, too. The opposite is true for other member states like Czech Republic, Netherlands, Slovakia, France, Hungary, Austria, Denmark and Finland with both, a low risk of poverty as well as a low in work at risk of poverty.

Figure 3-3: At-risk-of-poverty rate and in-work at-risk-of-poverty rate



Data of 2014. Source: Eurostat, 2016.

#### 2.3 Potential Determinants

From the findings above it becomes clear that education – the own and the parent's one – and employment are crucial for preventing poverty. Moreover, the social benefits and transfers within the national welfare systems are important determinants, too.

## 2.3.1 Own education

Economic models dominate the modern concept of poverty although other aspects of the phenomenon are also important. Poverty itself has an impact on health, mortality rates, family size, economic productivity and many other aspects of human life. Education has proved to be an important factor in poverty; the poor are less educated. It appears that there is less a linear relationship than an interactive one between schooling and poverty. The content and quality of primary education are important, as is their interaction with other social and economic factors. Evidence tends to indicate that successful economies build on mass basic educational provision. There are no successful modern economies that do not show this and there is much evidence to suggest that education has a positive impact on the income levels of nations. However, the level of returns to education is dependent on time and the level of development of the school system. As systems become more complex and sophisticated, so the returns from lower levels of schooling decline. In poorer countries, returns from primary education are the highest. Carm et al. (2003) addresses the impact of schooling on poverty reduction on global basis including the whole spectrum of diverse developed economies. It suggests that the positive effect of education on poverty reduction is certainly given. Policy implication however is extremely difficult as it is complex, gender-related and contextually determined.

Raffo et al. (2007) address the general question of the correlation between poverty and education using the example of the UK. It provides a universal framework that makes it possible to organize the research on this relationship within three levels: the individual (micro level), the immediate social context, which might be located in families, communities, schools and peer groups (the meso level) and the social structures (the macro level).<sup>5</sup> Noteworthy is the socially critical perspective of the authors who try to make the case for the fact that historically it is education itself that is variously implicated in creating, reproducing and enhancing inequality. They suggest that education was never developed to be enabling and educative for all young people in a manner that might challenge existing social structures.

#### The higher the own education the lower the risk of poverty

The risk of poverty decreases by the level of education. 24.9% of people aged 18 or over with pre-primary, primary and lower secondary education (levels 0-2) are at risk of poverty in EU-28. The risk is highest in Eastern European countries (30.7%) and lowest in Nordic countries (20.5%). In EU-28 the risk decreases to 14.9% for people with upper secondary and post-secondary non-tertiary education (levels 3 and 4) and further decreases to 7.9% for those with first and second stage of tertiary education (levels 5 and 6). That trend is true for all areas in Europe. The risk decreases most in Eastern European countries with only 3.8%

<sup>&</sup>lt;sup>5</sup> Within the framework of these three stages, the article analyzes two broad perspectives that provide quite different views about the purpose of education (and how it is related to poverty): the functionalist perspective and the socially critical perspective. The functionalist perspective seems to be more familiar in its analysis how and why people do or do not access education in an effective way. It emphasizes on early childhood conditions and the environment that children are raised in to explain their succeeding or failing within our educational system.

risk of poverty for people with first and second stage of tertiary education. People of this educational level face highest risk in Southern European Countries (9.1%).

Table 2-5: People at risk of poverty by educational level

	1	Levels 0 – 2		L	evels 3 and	4	Levels 5 and 6			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	23.1	24.9	n.a.	13.4	14.9	n.a.	6.8	7.9	
Anglo-Saxon	29.1	26.6	22.5%	15.6	15.9	16.0%	9.1	8.2	8.5%	
Continental	17.8	20.4	23.4	10.2	12.3	13.7	6.9	7.4	8.5	
Eastern	22.4&&	28.2	30.7	15.3&&	13.4	14.6	4.6&&	3.7	3.8	
Nordic	14.3	20.2	20.5	10.7	12.5	14.5	6.2	7.4	8.0	
Southern	23.6	23.1	24.8	12.3	14.3	17.4	6.3	6.2	9.1	

Levels 0 – 2: pre-primary, primary and lower secondary education; Levels 3 and 4: upper secondary and post-secondary non-tertiary education; Levels 5 and 6: first and second stage of tertiary education.

#### 2.3.2 Parents' education

We make similar findings with even stronger evidence when looking at the education of the parents and the respective risk for their children aged 18 or less.

### A higher educational level of the parents means lower risk of poverty for their children

While only 8.0% of children from parents with first and second stage of tertiary education (levels 5 and 6) are at risk of poverty, that is true for 24.2% of children from parents with upper secondary and post-secondary non-tertiary education (levels 3 and 4). Finally 50.5% of children from parents with pre-primary, primary and lower secondary education (levels 0 – 2) are at risk of poverty in EU-28. Children of those parents are exposed highest risk in Eastern European (65.8%) and lowest in Anglo-Saxon countries (34.3%). The opposite is true for children of parents with first and second stage of tertiary education with highest risk in Anglo-Saxon countries (11.4%) and lowest risk in Eastern European countries (5.1%).

Table 2-6: People at risk of poverty by educational level of their parents

	1	Levels 0 – 2		Le	evels 3 and	4	Levels 5 and 6		
	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	n.a.	47.7	50.5	n.a.	22.4	24.2	n.a.	7.6	8.0
Anglo-Saxon	51.4	44.7	34.3	22.8	24.5	23.8	13.1	8.9	11.4
Continental	35.5	49.5	49.8	15.1	21.7	21.2	6.9	7.4	6.9
Eastern	60.7&&	63.1	65.8	26.7&&	22.8	27.2	5.8&&	4.5	5.1
Nordic	23.0	35.3	45.3	12.1	13.1	15.4	5.4	7.4	5.7
Southern	39.6	45.6	50.4	19.8	24.5	28.6	8.1	8.4	9.7

Levels 0 – 2: pre-primary, primary and lower secondary education; Levels 3 and 4: upper secondary and post-secondary non-tertiary education; Levels 5 and 6: first and second stage of tertiary education.

Source: Eurostat, 2016.

#### 2.3.3 Employment

<sup>%</sup> Data of Ireland from 2013. & Without data of Bulgaria, Croatia and Romania. n.a. not available. Source: Eurostat, 2016.

<sup>&</sup>amp;& Without data of Bulgaria, Croatia and Romania. n.a. not available.

As discussed above, employment reduces but does not eliminate the risk of poverty. At this point, we look at the in-work at-risk-of-poverty rate by age and then show how employment and the working intensity can reduce this risk.

12.7% of employed young people from 18 to 24 years are in-work at-risk-of-poverty in EU-28 whereas there are great differences within the EU-countries ranging from 1.3% in the Czech Republic to 31.3% in Romania. The risk is highest in Southern European countries (18.2%) and lowest in Anglo-Saxon countries (9.3%). The risk has risen sharply since 2005 in Continental (from 6.9% to 12.1%) and in Southern Europe (from 9.0% to 18.2%).

Table 2-7: In-work at-risk-of-poverty rate by age

	1	8 – 24 year	S	2	25 – 54 year	S	55 – 64 years			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	10.9	12.7	n.a.	8.2	9.6	n.a.	7.0	8.3	
Anglo-Saxon	10.6	5.6	9.3	7.6	6.8	8.2	8.3	6.3	8.9	
Continental	6.9	10.3	12.1	5.2	6.3	8.3	5.7	5.8	7.3	
Eastern	10.7§	11.5	12.7	10.9§	10.2	10.5	8.6§	9.8	9.8	
Nordic	17.9	18.3	16.6	4.3	5.1	5.5	2.6	3.6	3.6	
Southern	9.0	13.1	18.2	10.0	10.5	11.9	10.3	8.9	9.5	

<sup>§</sup> Without data of Bulgaria, Croatia and Romania. n.a. not available.

Source: Eurostat, 2016.

The rate decreases to 9.6% for employed people from 25 to 54 years, again with highest risk in Southern European countries (11.9%) and further to 8.3% for people from 55 to 64 years. For elderly employed people the risk is highest in Eastern (9.8%) and Southern (9.5%) European countries. However, elderly employed people in Nordic countries face lowest in work at risk of poverty (3.6%).

# Employment reduces the risk of poverty dramatically

As expected the risk-of-poverty rate is highest for people having been unemployed in the previous year.

EU-28 Anglo-Saxon Continental Eastern Nordic Southern

Unemployed persons Other inactive persons

Employed persons

Figure 3-4: At-risk-of-poverty rate by activity in the previous year

Data for 2014. People aged 18 or over. Source: Eurostat, 2016.

The rate is 47.2% for EU-28, where it is only 27.9% for other inactive persons. When having been employed in the previous year the rate decreases significantly to 9.5%. Highest reduction of the at-risk-of poverty rate when having been employed in the previous year is observed in Anglo-Saxon countries where the rate drops from 55.4% when unemployed to 8.4% when employed.

Employed people are much less exposed to risk of poverty than other groups. However, noteworthy, they represent a large share of all people at risk of poverty, since a large share of the adult population is at work.

On the other hand, on a macro level, there is no clear correlation between jobless households and the poverty rate. De Graaf-Zijl and Nolan (2011) research on the prevalence of household joblessness as a source of income poverty and material deprivation and its variation across Europe by using data from LFS<sup>6</sup> and EU-SILC. The authors find substantial variation in household joblessness between European countries, but little evidence of a consistent pattern among groupings of countries, neither geographically nor by similar welfare state regimes. In aggregate, there is little evidence of a relation between overall jobless households in a country and the percentage of population living below the relative poverty line. However, on a micro level being a working-age unemployed worsens an individual's social as well as material situation significantly.

### Higher work intensity reduces at-risk-of-poverty rate

The in-work at-risk-of-poverty rate strongly increases when work intensity decreases. The in-work at-risk-of-poverty rate in EU-28 is 5.2% for employed people from 18 to 59 years

<sup>&</sup>lt;sup>6</sup> Labor Force Surveys.

with a very high work intensity ]0.85 - 1.0]. The rate is less than 10% in every single EU-country except Romania (12.7%). When work intensity decreases form very high to high ]0.55 - 0.85], the in-work at-risk-of-poverty rate nearly doubles to 10.2%. Again, Romania is worst with a rate of 27.0% where the rate in every other country is below 15%. Whit medium work intensity [0.45 - 0.55] the rate doubles again to 20.4%. In addition, in case of low work intensity ]0.2 - 0.45[ the rate nearly doubles again to 36.5%. In case of low work intensity, the rate is lowest in Nordic and highest in Eastern European countries with highest rates in Romania (56.2%), Bulgaria (47.3%) and Estonia (46.9%).

Table 2-8: In-work at-risk-of-poverty rate by work intensity

	Very high intensity			High intensity			Medium intensity			Low intensity		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	n.a.	4.4	5.2	n.a.	8.6	10.2	n.a.	18.7	20.4	n.a.	33.5	36.5
Anglo-Saxon	3.5	3.2	3.6	9.5	8.9	10.5	19.5	15.6	22.8	41.6	33.7	38.1
Continental	3.1	3.6	5.2	5.3	7.1	10.0	10.9	15.0	16.2	21.0	27.5	30.0
Eastern	7.0§	6.4	5.9	10.8§	11.1	11.6	19.7§	19.1	23.9	34.0§	38.5	42.5
Nordic	3.7	4.1	4.1	7.4	6.7	9.8	8.4	11.3	14.1	14.6	27.7	27.9
Southern	5.1	4.4	5.4	8.0	9.9	10.7	22.0	23.9	21.8	30.8	36.7	38.7

People aged 18 to 59. § Without data of Bulgaria, Croatia and Romania. n.a. not available. Source: Eurostat. 2016.

#### 2.3.4 Social transfers

The at-risk-of-poverty rate before social cash transfers (pensions excluded) measures a hypothetical situation where social transfers are absent. The at-risk-of-poverty rate before social transfers for total population is 26.1% in EU-28. The rate is higher for young people (18 years or less) with 34.6% and much lower for senior citizens (65 years or over) with a rate of 17.1%. For total population the rate is lowest in Continental and Eastern Europe (24.5%), for people less than 18 years in Nordic countries (30.6%) and for people 65 or over in Continental Europe again (14.7%). Since 2005, there have not been major changes in the overall rate but a small increase in Southern and a small decrease in Eastern European countries (about 3%-points each).

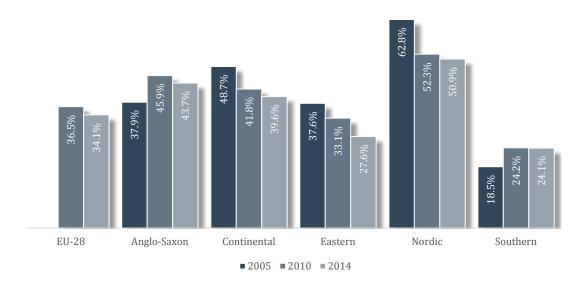
Table 2-9: At-risk-of-poverty rate before social transfers

		Total		Les	s than 18 ye	ears	65 years or over		
	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	n.a.	26.0	26.1	n.a.	35.2	34.6	n.a.	19.9	17.1
Anglo-Saxon	30.6	31.6	29.8	41.2	44.9	42.2	34.0	28.0	24.4
Continental	24.4	24.4	24.5	31.7	33.5	31.7	17.1	14.6	14.7
Eastern	27.5§	25.2	24.5	37.3§	34.1	34.4	12.8§	18.9	16.3
Nordic	28.8	27.4	27.8	31.6	29.0	30.6	28.8	26.9	21.5
Southern	24.0	25.8	27.3	30.3	33.8	35.1	28.6	22.8	16.1

 $<sup>\</sup>S$  Without data of Bulgaria, Croatia and Romania. n.a. not available. Source: Eurostat, 2016.

When looking at the at-risk-of-poverty rates before and after social transfers the reduction of the respective risk due to social transfers can be calculated.

Figure 3-5: Reduction of the at-risk-of-poverty rate due to social benefits



Data for EU-28 (2005) not available. Eastern (2005) without data of Bulgaria, Croatia and Romania. Source: Eurostat, 2016.

The risk is reduced by 34.1% in EU-28 with highest reduction in Nordic<sup>7</sup> (50.9%) and lowest in Southern (24.1%) European Countries. Social transfers are most effective in Ireland, Denmark and Finland where they reduce the risk of poverty by more than 50%. Conversely, in Romania (10.9%) and Greece (15.0%) social transfers reduce the risk of poverty much less. As shown in the figure, the reduction has decreased in Nordic, Eastern and Continental Europe whereas it has increased in Anglo-Saxon and Southern European countries since

<sup>&</sup>lt;sup>7</sup> Aiginger and Leoni (2006) stated that Nordic countries had more "inclusive institutions, and as a consequence less insider-outsider problems than other European countries. The inclusiveness of institutions and the trust in society enabled these countries to introduce greater flexibility in the labour markets without increasing poverty and exclusion."

2005. Although social transfers have a huge distributive effect by avoiding or reducing poverty, the reduction has not only decreased within the last decade but especially since 2010. That may be due to austerity programs implemented after the financial crisis.

The political systems of the European countries influence the success of reducing poverty, too. Fouarge and Layte (2005) evaluated how different European welfare states perform in preventing poverty and to what degree they matter when compared to household and individual characteristics. The authors showed that country welfare regimes strongly influence long-run poverty, with social democratic countries reducing the level of persistent and recurrent poverty. Liberal and Southern European regime countries have both higher rates and longer durations of poverty. However, there is some evidence that the incentives to exit long lasting poverty are higher in Liberal and Southern European countries than in the social democratic ones. The data used for this analysis is the European Community Household Panel (ECHP) covering the years 1994 to 1998. Concerning individual effects, they draw the same picture as Lelkes and Zólyomi (2008) with the main risk group being singles, single parents and households with a low earner to dependent ratio. In addition, they find that education, even when controlling for employment status, significantly reduces the risk of poverty.

The in work at risk of poverty is affected by social transfer systems and other institutional settings, too. Spannagel (2013) approaches the issue of in work at risk of poverty by analysing individual and household related characteristics as well as focusing on the impact of institutional setting by using EU-SILC data. While the findings suggest that the largest share of being at risk of in work poverty can be explained by individual effect, it also appears that varying institutional settings across countries play an important role. There are three indicators relate to in work poverty on a highly significant level: low wages, unfavourable household composition (few earners, many dependents) and insufficient social securities. These three mechanisms relate to three core pillars of welfare provision: Employment, family and public welfare, each of them exposed to country level differences. She summarizes by stating that employment is still the most important factor in the protection against poverty. However, governments should not only focus on the quantity of supplied jobs, but also on their quality in terms of financial security. In the fight against in work poverty, the quality of jobs is at least as important as their quantity.

# 3 Equitable Education

#### 3.1 Introduction

It is a well-documented fact that investment in human capital, i.e. education, in general yields positive returns in terms of both the level and the future development of individual earnings (see i.e. Blundell et al., 1999 or Oreopoulos and Salvanes, 2011). Because of the positive impact on individual income, state budgets are also positively effected in terms of increasing revenue from taxes and social security contributions and less expenditure on household transfers. The (long-term) public returns to education are positive even though a substantial share of the cost of education is typically borne by state budgets.

Apart from such purely monetary considerations, investment in human capital is shown to have positive effects on individual health, trust and participation in both society in general as well as in political decision making. Moreover, education is seen as one of the key determinants of technological development, production and thus economic growth (European Commission, 2010).

Since increasing societies' educational level has positive effects in various individual as well as public dimensions, it becomes more and more important that educational systems are "equitable". We define "equity" in this context as the aim to reduce the influence of socioeconomic characteristics like household income, gender, race or parents' education on educational attainment. Reducing those influences should guarantee that societies' overall educational level increases, which provides a sound basis for future (economic) prospects.

Equitable education is thus of paramount importance in economic domains as well as in the domains of fairness and equality. This chapter aims at giving an overview on the fairness and inclusiveness of educational systems in the European Union. For clarity reasons, it does so, just as the other chapters presented in this study, by comparing the Anglo-Saxon, Continental, Eastern, Nordic and Southern parts of the Union, while it seldom focuses on specific countries. The chapter is organized into the following two sections. In Section 4.2 we present two basic indicators imaging the quality and inclusiveness of educational systems. Those are the shares of people pursuing different types of education as well as intergenerational mobility. Section 4.3 is devoted to potential determinants of the main indicators documented in Section 4.2, among which we see the private and public costs and benefits of pursuing education as well as the non-monetary effects of education, such as its impact on health, trust or political participation. We make one important qualification concerning the wording. In the domain of education it is somewhat crude to view the shares and intergenerational mobility as indicators and the (monetary and non-monetary) returns as their determinants. Causality might well be reversed, i.e. the shares and intergenerational mobility might determine the returns.

#### 3.2 Main indicators

As noted above, we view the shares of people pursuing different types of education as well as intergenerational mobility, i.e. to what extent parents' education determines educational attainment as the main indicators for the quality of educational systems.

#### 3.2.1 Shares

In this subsection we briefly document the shares of people pursuing early education, upper secondary non-tertiary education as well as tertiary education.<sup>8</sup> Note that in calculating the indicators, we related the number of people of the relevant age group who have, in the observed year, currently pursued the specific type of education, to the overall population of this age group. We think this is better than investigating the shares of people having in the past pursued the specific type of education, among the total population, since it moves the focus of the analysis from the years back in time to the recent past.

Figure 4-1 documents the shares of children aged between four years and the starting age of compulsory education, who pursue some form of early education (i.e. kindergarden, preprimary school etc.) for the different regions. Apart from the Eastern countries (86% in 2013), the shares exceed the level of 90% in all regions as well as in the EU-28 average. Since the shares are high and differences are small, we abstain from further differentiation into gender etc.

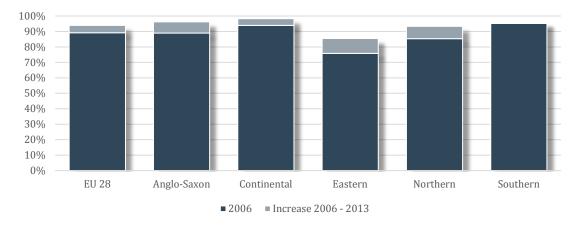


Figure 4-1: Shares of children aged 4 – schooling age in early education

Source: Eurostat, 2016.

While there is little meaning in documenting the shares of children primary and lower secondary education (both are compulsory), we show the number of people participating upper secondary non-tertiary education related to the population aged 15-19 in Figure 4-2. We use the different wording because what we show here is not exactly a share. Rather, people

 $<sup>^8</sup>$  We abstain from discussing the shares for primary and lower secondary education, since those types are compulsory in all 28 countries of the European Union.

participating in upper secondary education could be older than 19 and might sometimes be younger than 15, such that the people participating in upper secondary education is not a strict subset of the population aged 15-19. This can be easily seen since some of the documented fractions exceed 100%. However, we think that the numbers in Figure 4-2 are still informative. As can be seen, participation in upper secondary education is highest in the Anglo-Saxon and Northern regions, while it is below average in the Continental and Eastern European countries. Interestingly, in the Continental and Eastern area, participation among men is slightly higher than among women, while female participation exceeds male participation in the other three regions as well as in the EU-28 average. The countries with the lowest participation are Lithuania (49%) Cyprus (55%), Ireland (56%, this can't be seen from Figure 4-2) and Germany (66%), while participation as measured by our approach exceeds 100% in Belgium (121%), Finland (112%) and the United Kingdom (105%). Thus, there is considerable heterogeneity among the regions depicted in Figure 4-2.

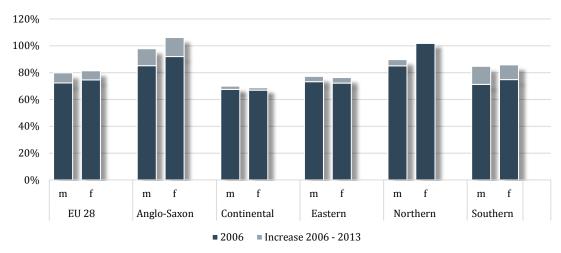


Figure 4-2: Number of participants in upper secondary education

Related to population aged 15 – 19

Source: Own calculations based on EUROSTAT, 2016c and 2016d.

Figure 4-3 finally shows the participation in tertiary education, again estimated by relating the number of people participating in tertiary education to the population aged 20-24. The resulting fraction tend to overestimate participation since the numerator is not a strict subset of the denominator (people can start tertiary education before 20 and end it after 24). However, we believe the differences between the regions are nonetheless informative.

From Figure 4-3 can be seen that average participation among women exceeds average participation in tertiary education among men in all regions. Moreover, we see that participation has increased between 2006 and 2013 in the Continental as well as the Southern area, while it has declined in the Northern part of the Union. There, however, participation in tertiary education has been higher than in any other region in 2006. The increase 2006 - 2013

has, disregarding gender differences, been highest in Austria (+31%), Greece (+21%) and Spain (+19%), while the decline has been highest in Sweden (-15%) as well as Latvia and Lithuania (both -11%). There is an easy explanation of a considerable part of the Austrian increase: Two important schooling types to be completed with university-entrance diplomas (technical schools and business administration schools) are now, despite not issuing university degrees, being counted in the domain of tertiary education, while they have been "upper secondary" in the past.

Just as for upper secondary education, we find considerable heterogeneity within the different regions also for participation in tertiary education. For example, participation in Ireland exceed participation in the United Kingdom by about 20 percentage points. Figure 4-3 essentially shows the UK rate for the Anglo-Saxon area since the averages are weighed by population size and the Anglo-Saxon area includes two small countries (Ireland, Malta) and a big one (UK). In the Eastern countries, participation in 2013 ranges from less than 50% (Romania) to more than 80% (Slovenia).

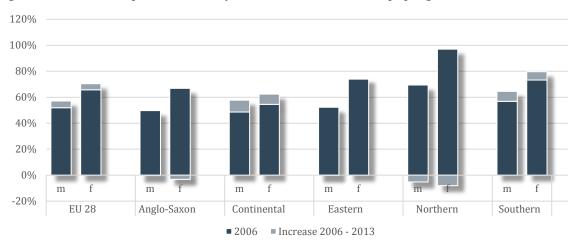


Figure 4-3: Participants in tertiary education related to the pop. aged 20-24

Including data on all EU-28 except Luxembourg. Source: Own calculations based on EUROSTAT, 2016c and 2016d.

#### 3.2.2 Intergenerational mobility

Another key indicator for the fairness of educational systems is intergenerational mobility. We present two measurements. First, we show, based on data from the OECD (2015), the fractions of people aged 25-34 who have a lower, higher or the same educational attainment than their parents. As shown Figure 4-4, there is considerable variation between the regions. In the Continental and Nordic area, downward mobility is above average. Slightly less (Continental) and slightly more than one fifth of the people aged 25-34 have a lower educational attainment than their parents. Downward mobility is especially high in Sweden

(28%), Estonia (27%) and Germany, while it is lowest in Italy (6%), Poland (7%) as well as France (10%).

For all regions, however, the share of people having a higher educational attainment than their parents (among the people aged 25-34) is higher than the share of people with downward adjustment. Upward mobility is particularly high in the Anglo-Saxon (45%) and Southern (44%) regions, while it is comparably low in the Continental and Nordic regions (both 29%). A country-wise comparison shows that upward mobility is particularly high in Ireland and Italy (45%) and in Spain (43%), while it is low in Czech Republic (17%), Germany (19%) and Slovakia (23%).

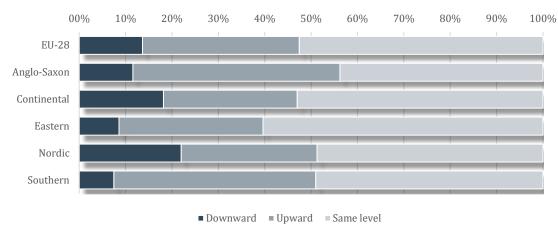


Figure 4-4: Educational attainment compared to parents' people aged 25-34

Analysis is based on data on Ireland (Anglo-Saxon), Austria, France, Germany and the Netherlands (Continental), Czech Republic, Estonia, Poland and Slovakia (Eastern), Denmark, Finland and Sweden (Nordic) and Italy and Spain (Southern) Source: OECD, 2015a.

In an additional picture, we show the share of people who have a higher educational attainment than their parents (upward mobility) among the people aged 25-34 with tertiary attainment. Interestingly, the share exceeds 50% on average for the EU-28 as well as in the Anglo-Saxon, Eastern and Southern regions. In the latter two, it is even higher at about two thirds (Eastern) or three fourth (Southern). The fraction is only slightly less than half in the Continental area and somewhat less than half in the Nordic region.

In Sweden (38%), Germany (41%) and Estonia (44%), the respective fraction is lowest, while it is highest in Italy and Spain. There, 78% and 72% of all people with tertiary attainment aged 25-34 have parents with an attainment below tertiary education.

<sup>&</sup>lt;sup>9</sup> The data would allow showing the shares for people aged 35-44. Since the image is very similar, however, we don't show an additional picture for this age group.

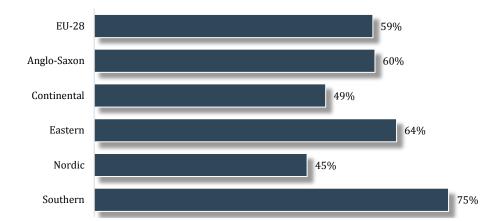


Figure 4-5: Share of upward mobility among tertiary attainment (aged 25-34)

Analysis is based on data on Ireland (Anglo-Saxon), Austria, France, Germany and the Netherlands (Continental), Czech Republic, Estonia, Poland and Slovakia (Eastern), Denmark, Finland and Sweden (Nordic) and Italy and Spain (Southern) Source: OECD, 2015a.

#### 3.3 Potential determinants

Among the potential determinants of the average country- or region-wise educational outcomes, we view the monetary effects of education on earnings and state budgets as being the most important.<sup>10</sup> However, we also consider non-monetary effects. In the following discussion, we account for differences in private and public returns as well as gender effects for monetary returns. Moreover, we discuss costs, benefits and resulting returns separately. We use the results from OECD (2014).

#### 3.3.1 Monetary effects of education

## Direct private and public costs

We start the discussion of monetary effects by plotting average direct private and public costs for an individual pursuing upper secondary education (compared to leaving educational attainment at compulsory level). Direct private costs include payments to educational institutions and for loans, housing, material etc. However, we do not consider shadow costs like forgone net earnings in the time spent in education. Direct public costs amount to average government spending on upper secondary educational institutions (per person).

<sup>&</sup>lt;sup>10</sup> As noted earlier, we acknowledge the possibility that the returns to education are driven by the shares of people with different educational attainment, such that the returns would have to be viewed as results rather than determinants.

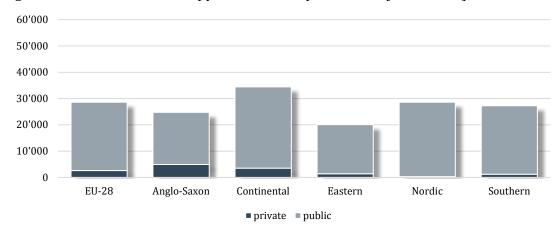


Figure 4-6: Direct costs of upper sec., vs. comp. education [\$ PPP 2010]

The values are in \$ PPP per year

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy, Portugal and Spain (Southern)

Source: OECD, 2014.

Figure 4-6 shows the distribution of direct public and private costs of upper secondary education over the different regions. As can be seen, direct public costs substantially outweigh direct private costs in all regions, the ratio being highest in the Nordic and lowest in the Anglo-Saxon region. The highest average direct public costs are found for the Continental area. In a country-wise perspective, they are highest in Luxembourg (\$ 72,900), Austria (\$ 56,200) and Denmark (\$ 54,000) and lowest in the United Kingdom (\$ 12,500) and Hungary (\$ 12,900).

Figure 4-7 shows the average per person direct public and private cost of tertiary education, compared to educational attainment at upper secondary level. As can be seen, direct private costs for tertiary education are substantially higher than for upper secondary education (\$8,500 as opposed to \$2,600 on average). Interestingly however, average direct public costs are slightly lower for tertiary education (\$24,700) than for upper secondary education (\$26,000). The countries with the highest average direct public expenditure on tertiary education are Denmark (\$85,600), Austria (\$44,800) and Finland (\$42,400), while expenditure is lowest in the United Kingdom (\$6,700), Portugal (\$10,300) and Estonia (\$12,000). In the United Kingdom however, direct private expenditure is highest (\$20,200), while it is lowest in Greece (\$700).

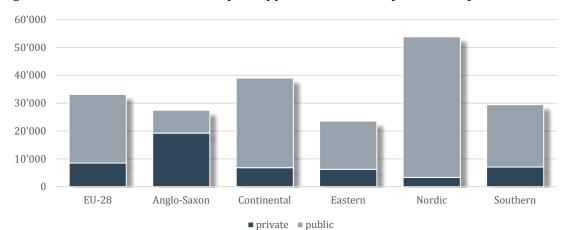


Figure 4-7: Direct costs of tertiary vs. upper sec. education [\$ PPP 2010]

The values are in \$ PPP per year

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy, Portugal and Spain (Southern)

Source: OECD, 2014.

Obviously, the distribution of costs for tertiary education to private individuals and public expenditure is substantially driven by the existence and extent of tuition fees and student support (i.e. scholarships and grants). Table 3-1 gives an overview on the respective policies in the EU-28 countries. Since calculating averages etc. for different areas is not possible for the given information, all countries are listed. Consistent with Figure 4-7 above, the United Kingdom has the highest fees, while there are no such fees in Czech Republic, Denmark, Germany, Greece, Cyprus, Malta, Poland, Slovenia, Slovakia, Finland and Sweden. The majority of countries demanding tuition fees also offer grants to about 10-49% of the enrolled students, lower exceptions being Croatia, Italy and Lithuania with only up to 10% of the students receiving a grant. In Denmark, the Netherlands and the United Kingdom, however, even 50-99% of all students are receiving a grant. The highest possible grants of more than € 5,000 per year are issued in Belgium, Denmark, Germany, Ireland, Spain, France, Italy, Austria and Portugal.

Table 3-1: Tuition fees and student support in 2014/15

1able 5-1:	Turtio	ni iees and student	support in 2014/1	J	
	Tuition Fee*	Students paying fees (tuition & administrative)	Fee per Year (fulltime students)	Students receiving Grants	Maximum Grant Amounts per Year
Belgium	Yes	50-99%	100 €- 1,000 €	10-49%	> 5,000 €
Bulgaria	Yes	50-99%	100 €- 1,000 €	10-49%	< 1,000 €
Czech Republic	No	0%	< 100 €	10-49%	< 1,000 €
Denmark	No	0%	< 100 €	50-99%	> 5,000 €
Germany	No	0%	< 100 €	10-49%	> 5,000 €
Estonia	Yes	1-49%	n.a.	10-49%	1,000 €- 3,000 €
Ireland	Yes	50-99%§§	1,000 €- 5,000 €§§§	10-49%§§§	> 5,000 €\$\$
Greece	No	0%	< 100 €	10-49%	1,000 €- 3,000 €
Spain	Yes	50-99%	1,000 €- 5,000 €	10-49%	> 5,000 €
France	Yes	50-99%	100 €- 1,000 €	10-49%	> 5,000 €
Croatia	Yes	1-49%	100 €- 1,000 €	1-10%	1,000 €- 3,000 €
Italy	Yes	50-99%	1,000 €- 5,000 €	1-10%	> 5,000 €
Cyprus	No	0%	< 100 €	100%	3,000 €- 5,000 €
Latvia	Yes	1-49%	1,000 €- 5,000 €	10-49%	< 1,000 €
Lithuania	Yes	50-99%	1,000 €- 5,000 €	1-10%	< 1,000 €
Luxembourg	Yes	50-99%	100 €- 1,000 €	100%	3,000 €- 5,000 €
Hungary	Yes	1-49%	1,000 €- 5,000 €	10-49%	< 1,000 €
Malta	No	0%	< 100 €	100%	3,000 €- 5,000 €
Netherlands	Yes	100%	1,000 €- 5,000 €	50-99%	3,000 €- 5,000 €
Austria	Yes	1-49%	100 €- 1,000 €	10-49%	> 5,000 €
Poland	No	0%	< 100 €	10-49%	3,000 €- 5,000 €
Portugal	Yes	100%	1,000 €- 5,000 €	10-49%	>5,000€
Romania	Yes	1-49%	100 €- 1,000 €	10-49%	< 1,000 €
Slovenia	No	0%	< 100 €	10-49%	3,000 €- 5,000 €
Slovakia	No	0%	< 100 €	10-49%	3,000 €- 5,000 €
Finland	No	0%	< 100 €	100%	3,000 €- 5,000 €
Sweden	No	0%	< 100 €	50-99%	3,000 €- 5,000 €
United Kingdom	Yes§	100%	> 5,000 €	50-99%	3,000 €- 5,000 €\$\$\$

<sup>\*</sup> No means "No or less than 100 €". § Scotland: No. §§ Northern Ireland: 100%. §§§ Northern Ireland: > 5,000 € §§§§ Northern Ireland: 3,000 € - 5,000 € §§§ Wales: >5,000 €, Scotland: 1,000 € - 3,000 €

Source: Eurydice 2016.

## Private and public benefit-cost ratios of upper secondary education

While as noted above, both private individuals as well as the public incur educational costs in the form of direct costs as well as shadow costs (forgone earnings and forgone tax and social security contribution revenues), there are on the other hand substantial benefits. Private benefits result from higher (net) earnings prospects and reduced risk of becoming unemployed, while monetary public benefits result from increased tax revenue and reduced household transfer payments (unemployment or social assistance etc.). Typically, people incur those benefits after completing education, and one can view them as additional (yearly) income streams appearing within the period from the time entering the labor market until retirement age. One option for comparing benefits and costs is to calculate the present values of the future benefit and cost streams. We take those figures from OECD, 2014. Based on the resulting data, we calculated the benefit-cost-ratios for private individuals as well as the

public. In doing so, we differentiated between secondary and tertiary education as well as men and women. The earnings prospects of men and women differ substantially, which is why both private as well as public benefits (via income taxes and social security contributions) show substantial gender differences.

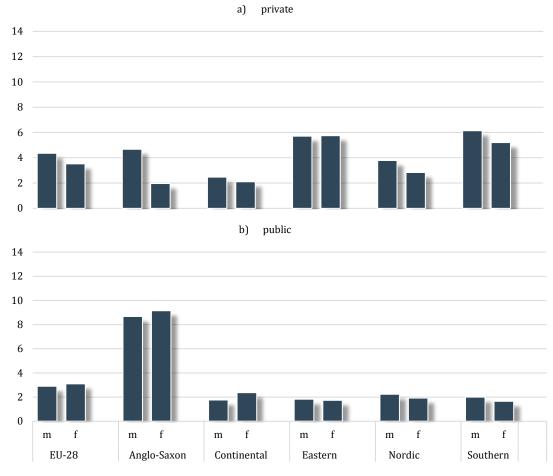


Figure 4-8: Benefit-cost ratios for upper secondary compared to comp. education

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy, Portugal and Spain (Southern)

Source: Own calculations based on OECD, 2014.

Figure 4-8 shows the private (panel a) and public (panel b) benefit-cost-ratios for upper secondary education as compared to leaving educational attainment at compulsory level. Clearly, in all regions as well as in private and public domains, the benefit-cost ratios exceed the level of one. Thus, according to these purely monetary considerations, participating in upper secondary education is clearly worth the effort and expenses both for individuals as well as the public.

However, as noted above, there are substantial regional and gender differences. Interestingly, private benefit-cost ratios are highest in the Eastern and Southern area, while they are considerably below average in the Continental area. In the Anglo-Saxon area, men profit from upper secondary education to a much higher extent than women. This is largely due to differences in life-time earnings. While men with upper secondary education in the Anglo-Saxon area incur additional lifetime net earnings of \$ 92,000 (present value) compared to men with compulsory education, women increase lifetime net earnings on average only by \$ 40,000 when participating in upper secondary education. Moreover, the monetary valuation of reduced unemployment risk is higher for men than for women. In other areas, gender differences are lower, and in the Eastern region, women are even estimated to have higher private benefit-cost ratios of upper secondary education than men.

Public benefit-cost ratios are smaller than private ratios except for the Anglo-Saxon area. However, the very high public benefit-cost ratio in the Anglo-Saxon region is somewhat artificial. Contrary to other regions, the forgone tax revenue for the time when individuals pursue upper secondary education instead of participating in the labor market is negative for this region. Apparently, people who don't pursue upper secondary education would earn little and be eligible to household transfers, and they are not eligible if in education. Because of this, the denominator (costs) becomes smaller and the fraction thus higher. This effect is larger for women than for men (forgone taxes of \$ -8,300 versus \$ -4,600) which is why the public benefit-cost ratio for females in upper secondary education is higher than for men, although the earnings prospects resulting from additional education are for men considerably larger.

#### Private and public benefit-cost ratios of tertiary education

Private and public benefit-cost ratios of tertiary education as compared to upper secondary education are shown in Figure 4-9. Private benefit-cost ratios are by far larges in the Eastern region of the European Union, but with a substantial disadvantage for women. In the eastern region, the PPP-adjusted additional net earnings (compared to upper secondary education) are for both men and women in Eastern Europe higher than in Nordic or Southern regions. They are particularly high in Poland (present value \$ 214,000), Slovenia (\$ 210,000) and Czech Republic (\$ 194,000), while they are comparably low in Sweden (\$ 101,000) or Denmark (\$ 111,000). Combined with low private costs of tertiary education, benefit-cost ratios turn large for Eastern Europe.

Public benefit-cost ratios for tertiary education are, just as the ratios for upper secondary education, largest for the Anglo-Saxon region. This is consistent with Figure 4-7 showing that public direct costs of tertiary education are in the Anglo-Saxon region by far lower than in the other regions.

Interestingly, participating in tertiary educations pays off lowest in Northern Europe for both privates as well as the public. This is largely due to the small earnings differential between

people having upper secondary or tertiary education. The public benefit cost-ratio for females in tertiary education is below one in Denmark (0.57) and Sweden (0.96), while it clearly exceeds one in Finland (1.53). For men in tertiary education, the ratio exceeds one in all analyzed countries. It is lowest in Denmark (1.19), Sweden (1.70) and Spain (1.75) and highest in Hungary (10.85), Portugal (10.02) and the United Kingdom (9.75). There is considerable heterogeneity of public benefit-cost ratios within the specified regions.

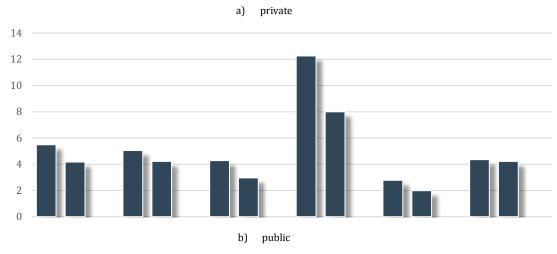


Figure 4-9: Benefit-cost ratios for tertiary compared to upper sec. education

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy, Portugal and Spain (Southern)

Source: Own calculations based on OECD, 2014.

#### 3.3.2 Non-monetary effects of education

Apart from the monetary returns to education discussed in the subsection above, one can identify several non-monetary benefits. In this section, we briefly discuss two such returns. Figure 4-10 shows the differences in the likelihood of reporting to be in good health for compared to people with compulsory educational attainment, for the specified regions. On average and accounting for gender, age and monthly earnings, the likelihood for reporting to be in good health increases by slightly more than 4.5 percentage points with upper secondary education, and it further increases by about 3 percentage points with tertiary education.

Thus an average EU-28 person with tertiary education has (gender, age and earnings equal) a 7.5 percentage points higher probability of reporting to be in good health than a person with compulsory education. The effect of education on health is highest in Eastern Europe. There, tertiary education brings about a 14-percentage point increase in the probability of reporting to be in good health (compared to compulsory education).

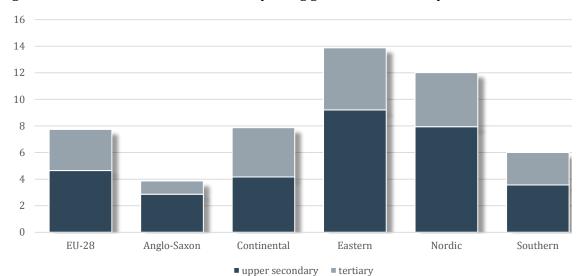


Figure 4-10: Increase in likelihood of reporting good health, vs. comp. education

Controlling for gender, age and monthly earnings

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany and the Netherlands (Continental), Czech Republic, Estonia, Poland and Slovakia (Eastern), Denmark, Finland and Sweden (Nordic) and Italy and Spain (Southern)

Source: OECD, 2015a.

Another non-monetary effect of education is seen in trust. Figure 4-11 shows the data for the specified regions, the estimation for the differences in the likelihood of reporting to trust others is the same as for the likelihood of reporting to be in good health. Accounting for gender, age and monthly earnings, upper secondary education brings about an on average 3.6-percentage points increase in the likelihood of reporting to trust others. Interestingly, the additional likelihood from tertiary education is on average more than twice as high as the additional likelihood from upper secondary education. The greatest impact on trust is observed for tertiary education in northern countries.

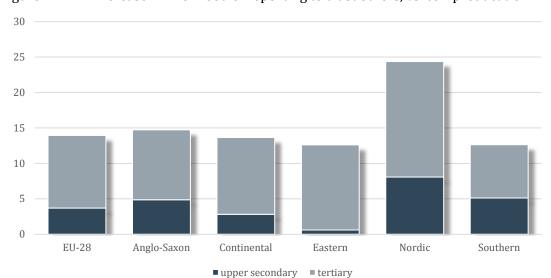


Figure 4-11: Increase in likelihood of reporting to trust others, vs. comp. education

Controlling for gender, age and monthly earnings

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany and the Netherlands (Continental), Czech Republic, Estonia, Poland and Slovakia (Eastern), Denmark, Finland and Sweden (Nordic) and Italy and Spain (Southern)

Source: OECD, 2015a.

# 4 Labor Market Access

# 4.1 Introduction

Labour market access is very important for social integration because it not only provides the main income source for the great majority of people but also is crucial for the social integration of individuals and families in society. Depending on the social insurance system unemployment and non-regular employment may be associated with low and insecure disposable household income and thus importantly contribute to inequality and poverty as well as social disintegration. Dramatically increasing unemployment, inequality and poverty rates in some of the member states of the European Union in the wake of the recent economic crises provide evidence for the great relevance of this topic from the perspective of social policy.

This chapter first presents indicators of labor market access for the member states of the European Union in the period 2005 – 2014. These include standard indicators, such as employment and unemployment by gender, age, and skill level, as well as indicators for non-regular employment and long-term unemployment. These latter indicators provide information on the situation of specific populations groups in the labour market, in particular youth, older and unskilled workers, and how labour market access for these groups has changed in the various member states after the recent economic and financial crises. As in the other chapters of this report, member states of the European Union are aggregated into five country groups to facilitate presentation and interpretation of indicators. The second part of the chapter presents indicators for potential institutional determinants of labour market access in EU member countries, in particular minimum wages, employment protection regulations, and the tax-benefit system. Indicators for other potentially relevant institutional factors affecting labour market access, such as family and pension policies are presented in other chapters of this report (see respective Chapters).

#### 4.2 Main Indicators

We identify the following indicators to describe poverty in EU-28 member states:

- Employment rate
- Non-standard employment: part-time, temporary and low-wage employment
- Unemployment rate
- Long-term unemployment.

We report these indicators for the overall "working-age" population aged 15 – 64 years as well as for broad age groups, gender, and level of education.

# 4.2.1 Employment rates

A standard indicator describing labour market access is the overall employment rate of people aged 15-64 years. For the EU-28 countries the average employment rate, weighted (by population share), amounts to almost 65% in 2014, compared to 63.4% in 2005 (Table 5-1).

There is substantial variation across country groups: Employment rates are above average in Anglo-Saxon, Continental and Nordic countries, and substantially below average in Southern countries. In 2014, average employment rates range between almost 73% in Nordic countries to 56% in Southern countries. However, there is also substantial variation in employment rates within country groups: For example, in 2014 employment rates within the group of Continental countries vary between about 74% in Germany and 62% in Belgium, whereas in the group of Southern countries employment rates range from almost 63% in Portugal to 50% in Greece for that year (see Table in the Appendix). Also, changes in employment rates over time differ within country groups: Whereas the average employment rate in Germany increased by almost 10 percentage points between 2005 and 2014, it stagnated in Belgium. In contrast, employment rates declined in all Southern countries within this period, most strongly in Greece with a decline by 10 percentage points. This heterogeneity within groups has to be kept in mind when interpreting country group differences, regarding both levels and changes over time.

Table 4-1: Employment rates by age (in percent)

	15	15 – 64 years			55 – 64 years			15 – 24 years			25 – 54 years		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	63.4	64.1	64.9	42.2	46.2	51.8	35.9	33.8	32.5	77.0	77.7	77.5	
Anglo-Saxon	71.3	68.7	71.2	56.3	56.6	60.3	54.0	45.8	46.8	80.9	79.1	81.4	
Continental	65.4	68.3	69.5	41.6	49.0	56.0	39.6	41.0	39.7	79.3	82.0	82.0	
Eastern	56.8	59.5	62.3	34.4	38.8	44.9	24.1	24.3	24.5	73.5	76.7	78.3	
Nordic	72.3	71.4	72.7	62.2	63.4	67.1	45.7	44.1	45.4	83.5	83.0	83.2	
Southern	60.8	58.5	55.9	38.2	40.7	44.6	31.0	22.7	16.4	74.1	71.6	68.1	

Source: Eurostat, 2016.

# Gender Differences in average employment rates

Country differences in average employment rates are to a large extent related to gender differences. While male employment rates in Anglo-Saxon, Continental and Nordic European countries reach similar levels, the female employment rate in the latter group of countries is considerably higher than in the other two country groups (Table 5-2). Much lower female employment rates are observed in Eastern European and, in particular, in Southern European countries where the average rate is less than 50%, compared to about 60% for the EU-28 and more than 70% for the Nordic countries.

Table 4-2: Employment rates by gender

F - J		7 8						
		Males		Females				
	2005	2010	2014	2005	2010	2014		
EU-28	70.7	70.0	70.1	56.1	58.2	59.6		
Anglo-Saxon	77.6	73.7	76.1	65.1	63.8	66.3		
Continental	71.3	73.1	73.5	59.5	63.5	65.4		
Eastern	62.8	65.5	68.4	50.8	53.6	56.1		
Nordic	74.8	73.5	74.5	69.8	69.3	70.9		
Southern	72.4	67.0	62.8	49.2	50.0	49.0		

Source: Eurostat, 2016.

While male employment rates in the EU-28 have, on average, remained fairly stable for men and increased slightly for women in the period 2005 – 2014, substantial country differences can be observed: First, the male unemployment rate in Southern European countries dropped, on average, by almost 10 percentage points, while the female employment rate in this group of countries remained at its relatively low level attained in 2005, on average. Within this group, Greece is the only country experiencing a substantial decline in both the male and female employment rate (see table in the Appendix). Second, female employment rates increased in both Continental and Eastern European countries between 2005 and 2014, while they more or less stagnated in Anglo-Saxon and Nordic countries at their relatively high pre-crises levels. Finally, there is substantial variation within some of the country groups. For example, within the group of Continental European countries the increase in male and female employment rates is mainly driven by the positive development in Germany which overcompensates the stagnating or declining in other countries within this group, e.g. France.

## Employment rates by age vary substantially between countries and over time

Whereas country differences of employment rates of younger and older persons are strongly affected by national differences in education/vocational and retirement systems, respectively, people in their prime working age, here defined as those aged 25 – 54 years, are less affected by these institutional factors. Although there is less heterogeneity between countries for people of prime working age, substantial country differences in average employment rates can also be observed ranging from about 83% in Nordic countries to only 68% in Southern countries in 2014 (Table 5-3). In addition, in Southern countries the average employment rate of people of prime working age has declined by 6 percentage points, whereas it has been increasing in all other countries, on average, with the exception of the Nordic countries which had attained a relatively high average employment rate of prime age people already a decade ago. Although employment rates of this group declined in all Southern countries between 2005 and 2014, with almost 10 percentage points the decline was most pronounced in Greece. On the other hand, the German employment rate of prime age people increased by almost 10 percentage points within this period, while the respective rate did not change at all in France (see table in the appendix).

Substantial country differences in average employment rates can also be observed for people aged 55 – 64 years, which range from 67% in Northern countries to about 45% in Eastern and Southern European countries in 2014. While employment rates of older people have increased, on average, across all five country groups, the increase was most pronounced in Continental and Eastern European countries, where the average employment rate of this age group increased by almost 15 and 12.5 percentage points, respectively (Table 5-1). In Continental European countries the increase in the average employment rate of this group is driven by the extraordinary increase in Germany, where the respective employment rate increased by more than 20 percentage points in the period 2005 – 2014. There is also substantial variation in employment rates within other country groups: For example, behind the increase in the average employment rate of people aged 55 – 64 years by about 6 percentage points in Southern European countries is an increase by almost 15 percentage points in Italy and a decline of about 8 percentage points in Greece.

Employment rates of youth (15 – 24 years) differ widely across countries and, for a given year, may partly reflect differences in educational and vocational training systems, e.g. longer duration of tertiary education in Continental European compared to Anglo-Saxon countries (Table 5-1). The very low employment rates of Eastern and, in particular, Southern European countries cannot, however, cannot be explained by such institutional factors and indicate the poor employment prospects of youth in these countries. Whereas the low employment rate of youth in Eastern European countries relative to the EU-28 average has not changed between 2005 and 2014, the youth employment rate in Southern European countries has dropped from about 30% to 16% in this period. This dramatic change is driven by declining youth employment rates in all Southern European countries, with the most dramatic decline within this period occurred in Spain where the youth employment rate dropped from almost 40% in 2005 to about 17% in 2014 (see table in the appendix).

## Average employment rates vary substantially by education level

It is well known that employment rates differ substantially by the level of education, and this is also true for EU-28 average as well as for any of the five country groups. With the exception of Southern European countries, employment rates of people with tertiary education exceed 80% and differ little, on average, between these countries. Employment rates of people with upper-secondary and post-secondary and non-tertiary education are substantially lower and country differences are somewhat more pronounced. Employment rates of people with less than lower secondary education are generally much lower and also vary substantially across countries. To some extent, these country differences may be related to institutional differences of the education and vocational training systems mentioned above.

Table 4-3: Employment rates by education

	Less than primary, primary and lower secondary education				econdary a dary non-te education		Tertiary education				
	2005	2010	2014	2005	2010	2014	2005	2010	2014		
EU-28	47.3	45.1	43.3	68.1	68.3	68.4	82.6	82.3	82.0		
Anglo-Saxon	60.6	51.0	53.6	76.9	70.6	72.0	87.3	83.7	84.0		
Continental	45.8	46.4	44.7	69.9	72.2	72.2	81.5	84.0	84.7		
Eastern	27.9	28.2	28.7	62.5	63.3	65.2	82.5	81.8	82.4		
Nordic	52.6	48.2	46.4	76.9	76.1	76.8	85.6	85.4	85.8		
Southern	51.5	47.3	43.4	65.7	63.3	59.2	80.1	77.8	75.1		

People from 15 to 64. ISCED 11, Level 0 – 2: Less than primary, primary and lower secondary education; Level 3 and 4: Upper secondary and post-secondary non-tertiary education; Level 5 – 8: Tertiary education.

Source: Eurostat, 2016.

Employment rates of people with less than secondary education have declined in most European countries between 2005 and 2014, whereas for people with medium and higher education average employments rates have, again with the exception of Southern European countries, have remained fairly stable over the period 2005 – 2014. The decline in Southern European countries is mainly driven by Greece and Spain and most likely related to the enduring economic crises in these countries.

# 4.2.2 Non-regular employment

Employment relationships other than full-time permanent jobs covered by the social insurance system are defined and "non-regular" employment in academic and public policy discussions. Such employment relationships include part-time employment, temporary work and certain types of self-employment ("solo-entrepreneurs"). Non-regular employment is typically associated with less job security, but this depends on institutional regulations that vary substantially across countries. For example, temporary employment may refer to a fixedterm contract with little job protection and social insurance, or may refer to regular employment in a temporary-help firm which rents out workers to other firms on a fixed-term basis, whereby the worker is covered by general job protection and income insurance regulations. Likewise, depending on the prevailing institutional regulations in the various countries, part-time employed people may or may not be covered by job protection and income insurance, and may prefer to work part-time or are "involuntarily" part-time employed because no full-time job is available to them. Also, the increasing share of soloentrepreneurs, who do not employ any workers and have little earnings, may be related to the lack of job offers ("necessity entrepreneurs") or just reflect self-employed people in the star-up phase of their own business ("opportunity entrepreneurs").

The share of non-regular employment in overall employment has been increasing in various EU countries within the last 10 - 20 years. This has often been cited as evidence for the effectiveness of labour market reforms in several EU countries aimed at making labour markets more "flexible". More specifically, non-regular employment has also been seen as a

"stepping stone" to regular employment for unemployed people and youth entering the labour market. Critics of these reforms are sceptical about this hypothesis and stress the increasing segmentation of the labour market into "good" and "bad" jobs, both regarding job security and earnings. In the following, we present some comparative evidence on (involuntary) part-time and temporary employment.

Table 4-4: Part-time employment by age (share in overall employment, in %)

	15	15 – 64 years			55 – 64 years			15 – 24 years			25 – 59 years			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014		
EU-28	17.2	18.5	19.6	21.7	22.3	22.5	24.7	29.1	31.8	15.9	16.9	17.9		
Anglo-Saxon§	24.1	25.4	25.1	31.4	31.3	31.5	33.7	39.8	38.4	20.2	21.0	22.2		
Continental	23.0	24.6	25.6	26.3	27.9	29.4	23.7	25.9	28.8	22.5	24.0	24.6		
Eastern	7.4	7.2	6.8	15.4	13.6	10.8	14.0	13.7	13.9	6.1	6.0	5.7		
Nordic	20.5	22.6	21.8	23.0	24.9	21.7	45.4	50.5	52.0	16.4	17.6	16.6		
Southern	11.3	12.8	15.9	10.9	11.4	13.1	16.6	24.5	31.9	10.7	11.9	15.1		

§ 2005 without data of Ireland.

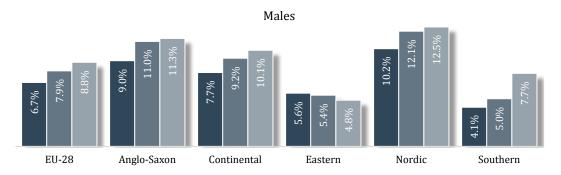
Source: Eurostat, 2016.

Part-time employment is quite common in the European Union reaching level of almost 20%, on average, with substantial variation across the member states. The share of part-time employment is above average in Anglo-Saxon and Continental European countries and substantially below average in Eastern and Southern European countries. Except for Southern European countries, the share of part-time employment has changed little between 2005 and 2014, both on average and for prime-aged workers.

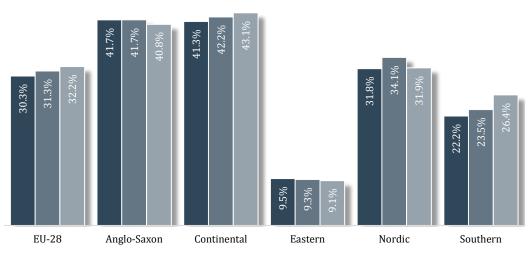
#### Gender differences in part-time work

Although the share of part-time employment is generally much higher for women than for men, this gender gap differs greatly across European countries: Starting from already relatively high levels, the share of part-time employment among men has been increasing in Anglo-Saxon, Continental and Nordic European countries between 2005 – 2014 reaching level exceeding 10% at the end of the observation period. The expansion of male part-time employment was particularly strong in Southern European countries, if starting form a relatively low level at the beginning of the observation period, whereas in Eastern European countries the share of part-time employment among men slightly declined in the observation period.

Figure 5-1: Part-time employment rates by gender







**2005 2010 2015** 

2005 Anglo-Saxon without data of Ireland. Source: Eurostat, 2016.

# Part-time employment share high among younger and older workers

The relatively large share of part-time employment among youth in all countries (Table 5-4) is probably related to both working while in education or vocational training in the Nordic countries and to the scarcity of full-time jobs for labour market entrants as it is the case in Spain in particular (see table in the Appendix). Except for Eastern European countries, where the share of part-time employment among youth is relatively small and stagnating, this share has been increasing in all other countries from its pre-crises level. In Southern European counties, this share has doubled, on average, reaching a level of almost a third in 2014. This increase is mainly driven by the development in Spain where the share of part-time employment among youth almost doubled since 2005 to a level of almost 40% in 2014 (see table in the Appendix).

The share of part-time employment among older workers in Anglo-Saxon and Continental European countries is, on average, much higher than in Eastern and Southern European countries. While this share has changed little, on average, in the former two countries relative to the pre-crises year 2005, it declined in Eastern European countries and increased from its low level in Southern European countries. The slightly declining share of part-time employment in the Nordic countries, which lies in-between the other country groups, is probably related to differences in employment behaviour of women in these countries.

## **Involuntary part-time employment**

In Southern European countries, almost two thirds of all part-time employment people in 2014 consider their employment status as "involuntary"; this share exceeds 70% among men and still 60% among women and it has almost doubled between 2005 and 2014 (Table 5-5). This clearly indicates a lack of full-time jobs which has become more severe after the economic crises in these countries. But, with the exception of the Nordic countries, involuntary part-time employment seems to be prevalent also for the other groups of countries, particularly among men.

Table 4-5: Involuntarily part-time employment

Tubic 1 5.	VOIGIICGI	ny part	citite citi	proymer	10					
		Total			Males		Females			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	27.0	29.6	n.a.	36.2	40.2	n.a.	24.3	26.3	
Anglo-Saxon	9.7§	19.7§§	20.3	17.4§	36.4§§	36.7	7.3§	14.7§§	15.3	
Continental	22.1	23.9	23.8	31.4888	33.1888	30.4	20.3	21.9	22.2	
Eastern	36.6	31.8	38.1	39.3	35.5	40.9	33.2	27.8	35.0	
Nordic	24.1	24.6	26.1	24.0	24.9	26.1	24.3	24.6	26.2	
Southern	37.7	49.8	64.1	45.3	58.8	73.1	35.8	47.3	61.1	

Involuntary part-time employment as percentage of the total part-time employment.

Source: Eurostat, 2016.

Not only the levels, but also the evolution of involuntary part-time employment in the last decade differs across countries. Like in the Southern European countries, the share of involuntary part-time employment In the Anglo-Saxon countries more than doubled between 2005 and 2014, while it remained more or less stable, on average, in the other groups of country summarized in Table *5-5*. Still, the level of involuntary part-time employment in the Anglo-Saxon countries remains below the EU-28 average.

### **Temporary employment**

Except for Anglo-Saxon countries, where the average share of temporary in overall employment is relatively low, this share does not differ much across EU countries. The lower temporary employment share in Anglo-Saxon countries may be related to the more flexible wage structure or differences in job protection regulations prevalent in these countries. For the country groups listed in Table *5-6*, average shares of temporary employment differ little

<sup>§</sup> Data from all Anglo-Saxon countries from 2006. §§ Data of United Kingdom from 2011. §§§ Without data of Luxembourg. n.a. not available.

by gender and have changed little between 2005 and 2010. Country differences are clearly feasible, however, for youth for whom the share of temporary employment ranges from 16.5% in Anglo-Saxon countries to almost 60% in Southern European countries. In the latter group of countries, temporary employment among youth increased by more than 10 percentage points since the pre-crises year 2005. With a share exceeding 50%, temporary employment is also very prevalent in Continental Europe, but this high share has remained stable over time. Thus, in these countries temporary employment seems to be a structural feature of the labour market related to wage setting and employment protection regulations. In contrast, temporary employment among older worker is also not common, and has not been increasing in importance over time in Continental European countries.

Table 4-6 Temporary employees by gender and age

		Males§			Females <sup>§</sup>			15 – 24 years			55 – 64 years		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	13.5	13.3	13.6	14.5	14.6	14.4	40.1	42.4	43.4	6.6	6.9	6.6	
Anglo-Saxon	5.0	5.8	6.0	6.1	6.7	7.0	12.2	14.9	16.5	5.2§§	5.1	5.4	
Continental	13.2	13.9	13.9	14.2	15.2	14.9	51.0	53.1	52.9	4.988	6.1888	5.6	
Eastern	13.5	13.6	14.8	12.5	13.6	14.6	33.5	34.0	40.0	11.8%	13.7%%	12.3%%	
Nordic	12.1	12.0	12.3	16.5	15.5	16.0	44.5	43.3	43.1	5.8	5.8	5.8	
Southern	18.6	16.6	17.4	22.5	19.5	18.4	46.9	50.2	58.9	9.6	8.0	7.5	

<sup>§</sup> From 15 to 64 years. §§ Without data of Malta. §§§ Without data of Luxembourg. % Without data of Estonia, Lithuania and Romania. %% Without data of Lithuania and Romania. Source: Eurostat, 2016.

# Low-wage employment

Following the definition used by Eurostat, low-wage earners are defined as employees earning less than two thirds of the median of the national gross hourly wage. According to this definition, in 2010 (the latest year for which Eurostat has published data) the share of low-wage earners among men varied between 3% in Nordic and about 20% in Eastern European countries; among women the respective shares are about 6% and 25%. For all country groups listed in Table 5-7, low-wage employment shares have changed little since 2006 (the previous year with available data), on average, both for men and women.

Given that wages are typically increasing in age, the share of low-wage earners among younger is much higher than for prime-aged and older employees in all countries, although there is little difference between the latter two groups (Table 5-7). Also, for these two groups the share of low-wage earners has changed very little between 2006 and 2010 on average for all countries. In contrast, the share of low-wage workers among younger people has declined substantially, on average, in all country groups. While in Southern European countries this decline could be related to a selection effect associated with the drop in the employment of youth, the development observed for the other country groups is difficult to explain in terms of employment selection.

Table 4-7: Low-wage earners by gender and age

	Ma	les§	Females§		Less 30 y		50 y and	ears over	30 to 49 years		
	2006			2010	2006 2010		2006	2010	2006	2010	
EU-27	12.6	13.3	21.9	21.0	40.9	30.7	13.5	14.3	14.1	13.5	
Anglo-Saxon	15.1	16.7	28.3	27.3	49.8	40.5	18.4	18.2	14.4	14.9	
Continental	10.5	11.1	19.3	19.2	36.7	27.6	11.5	12.4	11.8	11.3	
Eastern	20.9§§	20.6	26.3§§	25.1	40.0§§	28.3	19.6§§	21.4	23.1§§	21.5	
Nordic	3.0	3.2	6.2	6.2	17.4	15.4	2.1	2.6	3.0	3.1	
Southern	8.8	10.0	18.3	17.9	32.2	25.3	8.6	9.9	12.7	12.4	

Low-wage earners as a proportion of all employees (excluding apprentices). Company size: 10 employees or more.

§ From 15 to 64 years. §§ Without data of Croatia.

Source: Eurostat, 2016.

Table 4-8: Low-wage earners by education

Tubic I o. Low	wage carriers b	y caacatioi	.1						
		primary and ary education	secondary i	dary and post- non-tertiary ation	First and second stage of tertiary education				
	2006	2010	2006	2010	2006	2010			
EU-27	26.7	29.0	18.0	19.2	4.8	5.8			
Anglo-Saxon	44.9	34.4	28.0	30.7	6.4	11.5			
Continental	27.9	34.2	12.2	13.2	3.2	2.4			
Eastern	40.0§	44.5	25.6§	28.2	5.5§	5.0			
Nordic	8.4	9.0	4.7	5.9	1.6	2.2			
Southern	18.5	21.6	11.4	12.1	4.8	3.5			

ISCED97, Level 0 – 2: Pre-primary, primary and lower secondary education; Level 3 and 4: Upper secondary and post-secondary non-tertiary education; Level 5 and 6: First and second stage of tertiary education.

Low-wage earners as a proportion of all employees (excluding apprentices). Company size: 10 employees or more. n.a. not available.

Source: Eurostat, 2016.

The expectation that the share of low-wage earners is high among employees with little education or vocational training relative to those with medium-level or higher education is confirmed for all groups of countries by Table *5-8*. In absolute terms, however, differences between skill groups vary substantially between countries: While the share of low-wage earners with little education was only 9% in the Nordic countries in 2010, it was almost 45% in the Eastern and still about a third in the Anglo-Saxon and Continental European countries. Similar country differences can also be observed for employees with medium-level education, whereas they are much lower for employees with higher education. This has also changed little between 2006 and 2010.

#### 4.2.3 Unemployment rates

Another standard indicator describing labour market access is the unemployment rate which stood at an average level of about 10% for the EU-28 countries. There is substantial variation in unemployment rates between countries and also over time. While the unemployment rate in 2014 was about 7% in Anglo-Saxon and Continental European countries, it stood at above

18% in Southern European countries. Between 2005 and 2014 the average unemployment rate declined in Continental European countries from 9.3% to 7.4%, while it more than doubled in Southern European countries. Average unemployment rates within countries do not differ much by gender, and similar patterns between countries and over time can be observed for men and women. In the following we focus on long-term unemployment, for a discussion of unemployment differences with respect to age and education see the Social Justice Index Report (Schraad-Tischler, 2015).

## 4.2.4 Long-term unemployment

An indicator for labour market access complementary to the unemployment rate is the share of long-term unemployed people. Table *5-11* shows that in 2014 almost 50% of all unemployed people aged 15 – 64 years were unemployed for at least a year, on average, in the EU-28. The share of long-term unemployed people differs substantially between countries: While in that year about 20% of all unemployed people have been long-term unemployed in the Nordic countries, the respective share reached almost 60% in Southern countries. The table also shows that the dramatic increase in long-term unemployment in these countries by 20 percentage points mainly occurred after 2010. In contrast, long-term unemployment in most other EU countries decreased somewhat in between 2005 and 2014. Similar patterns between countries and over time can be observed for both men and women (see table in the Appendix).

# Long-term unemployment higher among older people

Whereas older people are typically less likely to become unemployed than young people, the former group is much more likely to become long-term unemployed if after job loss. Table 5-11 confirms that the share of long-term unemployed people is generally much higher than for youth and also considerably higher than for those in their prime age. Although this relation holds for all country groups, age differences in long-term unemployment vary greatly between countries: While the share of long-term unemployed older people is extremely high in Southern European countries (exceeding 70% in 2014), it also reached a level of more than 50% for young people and almost 60% for those in their prime age. In contrast, long-term unemployment in Nordic countries was only about 6% for youth and 26% for people aged 25-64 years in 2014.

Table *5-11* also shows that the high long-term unemployment rates among older people have been fairly persistent over time, on average, but have evolved differently especially for Eastern and Southern European countries between 2005 and 2014: While long-term unemployment rates have substantially declined in the former group of countries, they have strongly increased in the South.

Table 4-9: Long-term unemployment rates by age

	15	15 – 64 years			55 – 64 years			15 – 24 years			25 – 54 years		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	46.2	40.0	49.6	62.9	54.1	63.2	30.9	28.6	35.6	49.7	41.9	51.7	
Anglo-Saxon	22.0	33.7	37.3	39.3§§	43.6	50.0	13.4	24.9	28.7	26.0	37.9	40.9	
Continental	46.1	42.0	43.3	66.5§§§	60.2§§§	62.4	26.7§§§	26.3	25.6§§§	49.3	43.6	44.4	
Eastern	56.0	39.3	46.6	65.4	47.4	54.2	44.4%	31.1	35.1	59.4	41.1	48.6	
Nordic	24.6§	20.5	21.6	49.2§	36.7	38.6	7.0%%	7.1	6.5	27.2§	24.7	26.5	
Southern	40.7	43.9	59.1	54.7	57.7	70.8	32.7	36.8	50.8	42.3	44.5	59.4	

Long-term unemployment (12 months or more) as a percentage of the total unemployment.

Source: Eurostat, 2016.

# 4.3 Potential Determinants

From the findings above it becomes clear that employment and unemployment rates differ greatly both between member states in terms of both their levels and changes over the last decade, and within (groups of) countries labour market access is distributed quite unequally by gender, age, and skill level. To some extent, these differences may be explained by country differences in institutional regulations and their changes over time. Below we summarize the following potentially important institutional determinants of labour market access:

- Minimum wages
- Job protection
- Earnings taxation and unemployment traps.

Since information on these factors is somewhat limited, the focus is on the most recent available year for each country and country coverage will be less complete than in the previous section. It is also quite difficult to evaluate and even define labour market institutions in a consistent way across a large number of countries and over time.

### 4.3.1 Minimum wages

A good example for the difficulty to describe institutional country differences is the statutory (legal) minimum wage. A nationwide statutory minimum wage has only been introduced in Germany recently (2015), although quasi-statutory minimum wages in various important industries have been in existence for several years, and extensions of union-bargained minimum wages to uncovered sectors have been common for decades. Likewise, a legal minimum wage does not exist in Austria, although quasi-statutory minimum wages as determined by employer-union contracts at the regional level are prevalent. In contrast, where unions a non-existent or weak minimum wages are often legislated. This caveat should be kept in mind when interpreting comparative statistics on the minimum wages and relating them to country differences in labour market outcomes.

Given this caveat, the level of the statutory minimum wage relative to the average wage in the national economy may provide useful information on the degree of downward wage flexibility

<sup>§</sup> Without data of Sweden. §§ Without data of Malta. §§§ Without data of Luxembourg. % Without data of Lithuania. %% Without data of Denmark and Sweden.

as one potential determinant of structural unemployment. Table 5-12 shows pronounced country differences in minimum wages in those member states where a nationwide statutory minimum wages existed in the observation period of this study. The minimum wage amounts to 30% – 40% of the average wage in most of the countries listed in the table, but reaches almost 50% in such diverse countries like France, Luxembourg and Slovenia. Relating the minimum wage to the median rather than to the mean wage would be more informative in terms of labor market access because low workers are more likely to compete with workers in the lower part of the wage distribution and less so with those in the upper part who also affect the mean wage.

Table 4-10: Minimum wage relative to average wage of full-time worker (in %)

Year	2005	2010	2014
Belgium	44.0	43.2	43.1
Czech Republic	33.1	29.7	31.5
Estonia	32.4	33.9	34.8
Ireland	46.2	37.6	37.0
Greece	38.1	42.0	38.6
Spain	34.9	34.2	34.7
France	49.1	49.4	49.5
Latvia	30.7	36.7	38.0
Lithuania	37.7	36.2	38.2
Luxembourg	46.0	46.6	47.6
Hungary	36.1	34.7	40.2
Netherlands	42.1	41.5	41.9
Poland	33.9	37.2	40.1
Portugal	36.6	38.9	39.5
Romania	31.7	30.8	36.8
Slovenia	43.1	45.9	49.4
Slovakia	34.6	35.7	37.5
United Kingdom	36.9	37.9	39.8

Source: OECD, 2016.

In most countries, the ratio of the minimum to the average wage has changed little between 2005 and 2014. Exceptions are most of the Eastern European countries where the minimum has increased relative to the average wage, and Ireland where this ratio declined in this period. In countries where this ratio remained fairly stable within the observation period, like France and Spain, the minimum wage can perhaps explain part of the high levels of (long-term) unemployment among younger and unskilled people but not its increase over the last decade.

## 4.3.2 Employment protection regulation

Another potential determinant which may affect labour market access and thus the structure of employment and unemployment relates to institutional regulations concerning employment protection regulations (OECD, 2014, Chapter 4, Turrini et al. 2015). These regulations tend to increase job security for already employed workers and, in particular, certain groups of employees, like older or disabled people, but at the same time reduce job opportunities for entrants and re-entrants into the labour market. They thus may affect both the level and structure of employment and unemployment. The various job protection

measures may interact with each other and also with wage setting institutions. For example, regulations of temporary work may depend and be influenced by dismissal regulation of permanent employment contracts, and vice versa. Regarding the interaction with wage setting, job protection regulation may be neutral to employment determination if regulatory costs to firms are compensated for by downward wage flexibility, i.e. borne by workers by accepting compensating reductions in the gross wage, which could be hindered by the existence of a minimum wage. Thus, by looking at some particular regulation in isolation it is generally not possible to draw conclusions on its expected labour market effects. Furthermore, in some countries legal regulations only specify general rules with considerable room for interpretation by labour courts. Nevertheless, cross country differences in the structure of job protection regulations and, in particular, their changes over time, provide useful information on potential determinants of labour market access.

A recent summary of employment protection regulations by OECD (2014, Chapter 4) documents the great variation of employment protection regulations among member states of the European Union, among other countries. All countries seem to have regulations on the duration and renewal of temporary or fixed-term contracts as well as regulations defining under which conditions fixed-term contracts have to be converted into permanent contracts, and there are limitations on the duration and terms of renewal of temporary contracts in most countries. In general, rules for employment termination differ between permanent and temporary work contracts, and in case of the latter before and at the end date of the contract. Also, the costs to the firm of ending a contract differ between the two types. In the European Union, the United Kingdom and Ireland seem to be the only countries where the "employment-at-will" doctrine prevails, which implies that, except for "unfair" dismissals, there are few employment protection regulations in general, and no specific regulations for "non-regular" employment (OECD, 2014).

Several countries with restrictive dismissal regulations for permanent employment and increasing shares of non-regular employment have introduced stricter dismissal regulations of temporary employment contracts. A large empirical literature, summarized in (OECD, 2014), tries to relate differences in employment protection of regular and non-regular jobs to the structure of employment and unemployment. One important results of this research is that temporary and other forms of non-regular employment cannot be viewed simply as "stepping stone" to regular and more secure employment for unemployed people and labour market entrants, in particular young people, but seem to be of more permanent nature.

#### 4.3.3 Earnings taxation and unemployment traps

The taxation of earnings affects employment in various important ways. Regarding the topic of labour access, the interaction of the taxation of labour earnings and the public transfer system is of great importance. The "participation tax rate" is a common indicator which measures both the financial incentives to take up work and also the distributional impact of the tax-benefit system. Depending on the earnings capability of household members and the

structure of the tax-benefit system (means-testing of transfers), participation tax rates may be prohibitively high and thus act as "unemployment trap".

Table 5-13 shows that participation tax rates, as calculated by OECD (2016) and defined in the Note to the table, are indeed extremely high for specific types of households and countries. The participation tax rate for a couple household with two children, one spouse working at 67% of the average wage and the other currently drawing unemployment benefits related to his or her previous earnings who takes up a job at one third of the average wage would have been almost 80% on average across the EU-28 in 2013. The corresponding participation tax rates are even higher, on average, in Continental and Nordic as well as Southern European countries, and substantially lower in Anglo-Saxon and Eastern European countries. This is also the case for the other household types shown in the table: If the person defined above took up a job at two-thirds (100%) of the average wage the participation tax rate would still amount to 72.5% (68.2%), on average across all EU-28 countries, and these rates would be even higher in Continental European and Southern European and lower in Anglo-Saxon and Eastern countries.

Table 4-11: Participation tax rates

		Two-earner married couple, 2 children, 33% of AW			er married ren, 67% o		Two-earner married couple, 2 children, 100% of AW				
	2005	2010	2013	2005	2010	2013	2005	2010	2013		
EU-28	76.9	78.8	79.8	71.7	72.8	72.5	68.7	68.7	68.2		
Anglo-Saxon	51.6	57.9	59.5	41.9	44.9	46.2	39.0	41.8	41.5		
Continental	85.9	83.0	83.6	83.1	79.2	79.1	81.2	79.2	79.7		
Eastern§	70.7	66.1	64.8	70.1	67.6	67.0	63.3	60.3	60.3		
Nordic	94.9	90.3	90.3	85.2	78.0	76.9	73.9	66.5	66.4		
Southern§§	85.0	89.4	94.4	72.2	77.3	78.6	73.5	72.0	72.1		

Participation Tax Rates for a transition into full-time work for persons receiving unemployment benefits at the initial level. Participation tax rates measure the extent to which taxes and benefits reduce the financial gain of moving into work. The estimates here relate to the situation of a person who has just become unemployed and receives unemployment benefits (following any waiting period) based on previous earnings equal to earnings in the new job. No social assistance "top-ups" or cash housing assistance are assumed to be available in either the in-work or out of work situation. Any benefits payable on moving into employment are assumed to be paid. The percentage of AW relates to the earnings from full-time employment of the individual moving into work. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be inactive with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Calculations for families with children assume two children aged 4 and 6 and neither childcare benefits nor childcare costs are considered.

§ Without data of Bulgaria (2005), Croatia (2005 and 2010) and Romania (2005). §§ Without data of Cyprus. Source: OECD, 2016.

Between 2005 and 2013, participation tax rates in Anglo-Saxon and Southern European countries have even increased, if from very different levels, whereas they declined in the other EU member states, on average, with a relatively strong reduction in Nordic countries.

A related indicator is the so called "unemployment trap" which measures the short-term financial disincentives for an unemployed person receiving unemployment benefits to move to paid employment. It is defined as the share of gross earnings that is taxed away and includes in addition to income tax and social security contributions also transfer income that

is withdrawn in case of labor earnings. If there were no income tax and social security contributions, the unemployment trap would simply correspond to the income replacement ratio of the unemployment benefit. Since unemployment benefits are typically only paid for a limited period, the unemployment trap does not measure the potential long-term benefits of taking up work, but is only an indicator for short-term financial disincentive. Table *5-14* reports unemployment traps for a single person, Table *5-15* for two-earner couples with two children.

For a single person, the unemployment trap for the EU-28 average is 69% for the year 2013. This means that almost 70% of earnings from taking up paid work at the average wage is taxed away if the person had previous earnings at the level of the average wage and currently receives unemployment benefits. The corresponding unemployment trap is above average in Continental European and below average in Anglo-Saxon countries. The unemployment trap would be significantly higher in all countries if the person took up a job at only two thirds of the average wage: In 2013, more than 90% of earnings would have been taxed away, on average, in Continental European countries, but even in the Anglo-Saxon countries this share would have exceeded 60%. If the person only earned a third of the average wage in his or her new job, perhaps due to part-time work, taking it up would not pay as, except in Anglo-Saxon countries, the tax paid would exceed earnings in the new job. As Table *5-14* also shows, unemployment traps have declined a few percentage points in most countries between 2005 and 2013, but this has only modestly reduced the strong disincentive effects of the tax-benefit systems in most member states.

Table 4-12: Unemployment trap single person

Tuble 1 121	onemployment trup single person										
		evious 100 irnings 100			evious 100 arnings 679		previous 100%, earnings 33%				
	2005	2010	2013	2005	2010	2013	2005	2010	2013		
EU-28	69.6	68.8	69.0	86.0	85.2	84.8	134.5	132.8	129.8		
Anglo-Saxon	56.7	54.4	52.7	68.4	65.6	62.7	76.1	76.3	74.2		
Continental	76.5	76.2	76.4	91.9	92.5	92.6	133.8	128.7	129.0		
Eastern§	65.4	64.3	63.5	80.5	81.2	79.8	115.2	116.7	112.4		
Nordic	73.6	66.2	67.7	89.5	79.9	82.2	125.3	117.1	112.0		
Southern§§	70.2	68.4	68.9	88.0	84.9	82.8	147.4	139.4	134.3		

Previous earnings as % of average; earnings if taking up work as % of average

§ Without data of Bulgaria (2005), Croatia (2005 and 2010) and Romania (2005). § Without data of Cyprus (2010 and 2014). Source: Eurostat, 2016.

As documented by Table *5-15*, the picture for couples with children is qualitatively similar to that for singles in most member states, although unemployment traps differ somewhat in size which is related to the quantitative importance and degree of means-testing child benefits as well as the way couples are taxed (individual vs. joint taxation) in the different countries. In some member states, disincentive effects of the tax-benefit systems to take up work are even stronger for couples than for singles, in some countries these disincentive effects are reduced for the former relative to the latter group.

Unemployment trap for two-earner couples with two children Table 4-13:

	previous 100%, earnings 100%				previous 100%, earnings 67%			previous 100%, earnings 33%		
	2005	2010	2013	2005	2010	2013	2005	2010	2013	
EU-28	69.1	68.9	68.5	85.4	85.7	84.2	138.3	139.9	134.4	
Anglo-Saxon	38.8	37.9	35.2	39.4	40.9	36.9	46.2	47.3	41.9	
Continental	82.1	81.2	80.2	100.4	100.2	98.6	156.8	158.8	154.2	
Eastern§	61.6	59.7	60.1	74.6	74.5	74.2	101.6	105.0	103.0	
Nordic	74.3	66.5	67.9	90.8	81.2	83.3	146.7	130.9	134.6	
Southern§§	72.9	72.5	73.4	91.9	90.7	89.2	156.0	153.3	147.7	

Previous earnings as % of average; earnings if taking up work as % of average \$ Without data of Bulgaria (2005), Croatia (2005 and 2010) and Romania (2005). \$ Without data of Cyprus (2010 and 2014). Source: Eurostat, 2016.

# 5 Social Cohesion and Non-Discrimination

Social cohesion has become an often-used term among policy-makers all over Europe for some years. The European Union has made it part of its treaties<sup>11</sup> and the French as well as the British governments have assigned ministerial responsibility to its promotion. Moreover, social cohesion has received attention from other international organisations such as the OECD, the World Bank and the Council of Europe. The intellectual origins of the term "social cohesion" can be traced to Émile Durkheim, who saw it as a question of loyalty and solidarity within a social community: a mechanical solidarity based on likeness, and an organic solidarity based on the interdependence created by division of labor (Andréasson et al., 2013).

# 5.1 Introduction

Although the term "social cohesion" catches many aspects and is an ill-defined term (Chan et al., 2006) and a disputed issue (Andréasson et al., 2013), there are some indicators which stand for social cohesion. There seems to be a consensus that aspects like solidarity, trust, inclusion, integration and equality are appropriate to describe social cohesion.

### 5.2 Main Indicators

With respect to the policy dimension "Social Cohesion and Non-Discrimination", we identified the following main indicators:

- Income and wealth equality
- Gender equality
- Integration policy
- Young people neither in employment nor in education and training
- Shadow Economy and Corruption

### 5.2.1 Income and wealth equality

When looking at income equality one typically focuses on the Gini coefficient <sup>12</sup>. In 2014, the Gini coefficient of the equivalised disposable income was 30.9 in EU-28, highest in Southern (33.6) and lowest in Nordic member states (26.1). For country-wise figures, see the Social Justice Index Report (Schraad-Tischler, 2015). There has been no obvious development since 2005, where in some regions the Gini coefficient has dropped (Anglo-Saxon and Eastern member states), risen in some other (Continental and Nordic states) and nearly has been unchanged in Southern Europe.

<sup>&</sup>lt;sup>11</sup> Articles 3, 174 and 175 of The Treaty on European Union.

<sup>&</sup>lt;sup>12</sup> The Gini coefficient measures the extent to which the distribution of income within a country deviates from a perfectly equal distribution. A coefficient of 0 expresses perfect equality where everyone has the same income, while a coefficient of 100 expresses full inequality where only one person has all the income.

It is, however, well known and has been discussed for years that wealth is distributed less equal than income. In order to compare those distributions, we look at the Gini coefficient of total gross income<sup>13</sup> and net wealth<sup>14</sup> relying on data of the EURO-member states (HFSC)<sup>15</sup>.

Table 5-1: Gini coefficients of and correlation between income and wealth

	Gini coefficient Net wealth	Gini coefficient Total gross income	Correlation net wealth - total gross income
EURO area (16 countries)	0.68	0.42	0.33
Malta§	0.60	0.37	0.19
Continental	0.71	0.41	0.37
Slovenia and Slovakia§§	0.47	0.39	0.31
Finland§§§	0.66	0.38	0.59
Southern	0.60	0.41	0.39

<sup>§</sup> Ireland and United Kingdom are not EURO-member countries. §§ All other Eastern European countries are not EURO-member countries. Source: Arrondel et al., 2014.

For the 16 EURO-member countries the Gini coefficient of total gross income is 0.42, the Gini coefficient of net wealth 0.68. Comparing the selected regions in the EU is difficult because of too less EURO-member states in some regions. Nevertheless, it strikes that the Gini coefficient of net wealth in Continental Europe (0.71) is significantly higher than in Southern Europe (0.60).

The correlation between net wealth and total gross income amounts to 0.33 in the Euro area. The correlation is highest in Finland (0.59), France, Luxembourg, Italy and Portugal (0.44 to 0.48) and lowest in Belgium (0.18) and Malta (0.19).

## 5.2.2 Gender equality

Gender equality affects many dimensions within societies ranging from access to the labor market and education over earnings and health to activities within families. These indicators "are particularly important for measuring differences in the situation of women and men (i.e. gender gaps). Gender statistics constitute an area that cuts across traditional fields of statistics to identify, produce and disseminate data reflecting the realities of the lives of women and men, and policy issues relating to gender equality" (Eurostat, 2016b).

Therefor as far as indicators have a gender aspect, we discuss them in the respective policy dimension. In most of these dimensions, there are gender-related topics, especially in "labor market access" and "equitable education". The gender pay gap is discussed within the determinants for income inequality later on in this chapter.

 $<sup>^{13}</sup>$  Total gross income is defined as earnings, social transfers, private transfers, income from housing and financial assets so as to measure all before-tax income received during the year by the households.

<sup>&</sup>lt;sup>14</sup> Net wealth is defined as gross wealth less liabilities at the household level and gross wealth includes all kind of assets of the households: real assets (household main residence, other properties, business assets, other valuables as car, durable or luxury goods) and financial assets.

<sup>&</sup>lt;sup>15</sup> Arrondel et al. (2014) use the first wave of the Household Finance and Consumption survey (HFCS) that provides household level information on wealth, income and many demographics characteristics. The full sample includes 62,521 households and covers 15 euro area countries.

With participation in childcare and part-time work of parents, we look at two topics that are not covered in the other policy dimensions. Moreover, childcare traditionally has been considered a "female job". To look at the role of women in families, especially in their participation in childcare, we refer to data of parental leave. Latest data for EU-28 are from 2010 but the findings are obvious. First of all, childcare is a job of women all over Europe. If men take parental leave at all, the duration is 3 months or less. When looking at the duration of more than 3 months, the share of women accounts for 87% to 98% with one exception. In Nordic countries the share of women in parental leave is lowest, even for a duration of over 12 months (78.0%). Parental leave of men in Southern and Eastern European countries is by far the lowest.

Table 5-2: Women's share of parental leave by duration

	3 months or less	From 3 to 6 months	From 6 to 12 months	Over 12 months
EU-28	0.63	0.89	0.95	0.97
Anglo-Saxon	0.54	0.98	1.00	0.97
Continental	0.58	0.87	0.93	0.89
Eastern	0.86	0.98	0.96	0.90
Nordic	0.26	0.57	0.86	0.78
Southern	0.87	0.98	0.99	0.98

Data for some member states and categories missing – see detailed table attached. All data for 2010. Source: Eurostat, 2016.

Not surprisingly, the share of part-time employment of women is significantly higher than of men when there are children aged less than 6 years. While 5.6% of men worked part-time, 38.7% of women did in EU-28 in 2014 when there were children aged less than 6 years. Highest shares, both with females and males, are observed in Anglo-Saxon countries, where 7.2% of men and 55.7% of women work part-time. However, fewest people work part-time in Eastern European countries with 3.1% of men and 10.8% of women.

Within the last 10 years, part-time employment has decreased from 40.0% to 38.7% for women and increased from 3.9% to 5.6% for men in EU-28 with different developments in the European regions.

<sup>&</sup>lt;sup>16</sup> Defined as persons who took parental leave to care for their youngest child aged less than eight.

Table 5-3: Part-time employment of people with children less than 6 years

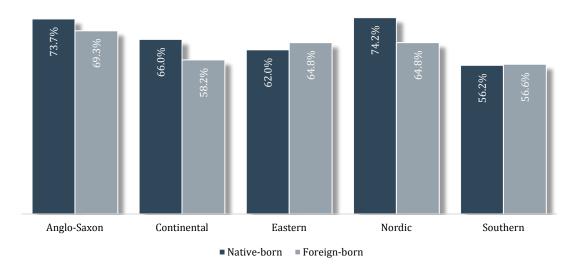
	Total				Males			Females		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	18,6	19,6	20,2	3,9	4,9	5,6	40,0	39,1	38,7	
Anglo-Saxon	29,8§	29,4	28,7	4,6§§	6,8§§	7,2	62,7§	57,6	55,7	
Continental	25,9	27,4	28,2	5,0\$	6,1\$	6,6	56,4	55,6	54,3	
Eastern	6,5	6,5	5,8	4,2\$\$	3,7\$\$	3,1\$\$	11,4	11,9\$\$\$	10,8\$\$\$	
Nordic	8,2%	18,9	17,2	2,5%	6,9	5,5	16,2%	31,0	30,0	
Southern	13,0	13,8	16,4	2,4%%	3,0	5,8	30,2	29,5	30,6	

People aged 20 to 49. § Without data of Ireland. § Without data of Ireland and Malta. § Without data of Malta. \$ Without data of Luxembourg. \$ Without data of Bulgaria (2005, 2010 and 2014), Lithuania (2005 and 2010) and Estonia as well as Slovakia (2005). \$ Without data of Bulgaria. Without data of Denmark and Sweden. Without data of Cyprus. Source: Eurostat, 2016.

### 5.2.3 Integration policy

As gender equality, integration policy has many dimensions, too. Again, aspects of integration policy referring to equitable education and labor market access are discussed in the respective policy dimensions.

Figure 6-1: Employment rates of native and foreign-born people



Data from 2014. People aged 15 to 64.

§ Without data of Ireland, Germany, Netherlands, Denmark and Romania (2005).

Source: Eurostat, 2016.

As the activity of migrants at the labor markets is crucial for integration, we look at their employment rate. The better migrants are integrated in labor markets the better for the society. There are positive effects for the welfare systems as tax and social security contributions rise and transfers, e.g. for unemployment, decrease. Overall, there is a positive effect for the budget – depending on the time horizon being looked at.

There is no homogenous trend in EU-member states when looking at the employment rates. While the employment rate of foreign-born people (first generation of immigrants) in Eastern and Southern Europe is higher than the respective rate of native-born, the opposite is true for the other regions. Greatest difference is observed in Nordic countries (64.8% versus 74.2%).

## 5.2.4 Corruption and Shadow Economy

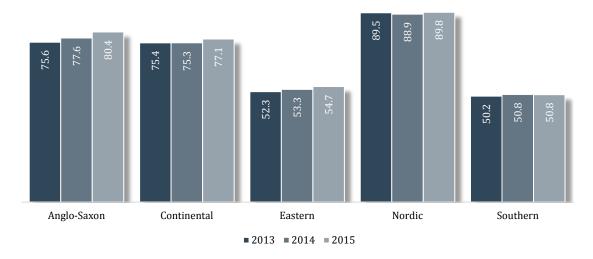
Corruption is associated with negative impacts on societies, from political to economic and social issues. E.g., it can impede democratic structures and the law system, which leads to decreasing confidence of people in institutions. With political participation declining, political stability and transparency may decrease.

Corruption can be measured and respective data and rankings are published periodically. "Based on expert opinion, the Corruption Perceptions Index measures the perceived levels of public sector corruption worldwide. A country or territory's score indicates the perceived level of public sector corruption on a scale of 0 (highly corrupt) to 100 (very clean). A country's rank indicates its position relative to the other countries in the index" (Transparency International, 2016).

As we see in the figure below corruption in EU-28 increases from North to South. While Nordic states having been the countries with least corruption for years, the opposite is true for (South)Eastern and Southern countries where corruption has been persistently high with Greece, Romania, Italy and Bulgaria at Europe's bottom.

In all EU-28 regions, the corruption has decreased from 2013 to 2015, by highest in Anglo-Saxon countries. There are only handful countries with the corruption having increased slightly since 2013 with Hungary on their top (from 54 to 51).

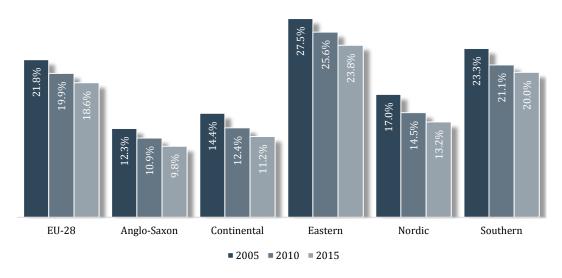
Figure 6-2: Corruption Perceptions Index



Source: Transparency International, 2016.

Another indicator for a society's cohesion is the share of shadow economy. In 2014, the shadow economy was 18.7% of GDP in EU-28 with highest shares in Eastern (23.8%) and Southern Europe (20.8%) and lowest in Anglo-Saxon countries (9.8%). In all European countries the shadow economy has been decreasing since 2005.

Figure 6-3: Shadow Economy as % of GDP



Source: Schneider, 2016.

# 5.3 Potential Determinants

After having described the main indicators of social cohesion and non-discrimination in the section above, we now look at the determinants and discuss their influence on the indicators.

### 5.3.1 Taxes and Social transfers

A determinant for income and wealth inequality, or more precisely for reducing income and wealth inequality, are social transfers and taxes within the European welfare systems. Therefore, we first compare the Gini coefficient before and after social transfers in order to work out their impact on the equality.

Table 5-4: Gini coefficient and reduction of income inequality by social transfers

		ent before soci ensions exclude		Reduction by social transfers (pensions excluded) in %				
	2005	2010	2014	2005	2010	2014		
EU-28	n.a.	36.2	36.5	n.a.	-15.7	-15.3		
Anglo-Saxon	42.8	42.3	40.4	-19.6	-22.5	-21.9		
Continental	33.8	35.5	35.6	-20.6	-18.6	-17.8		
Eastern	38.1§	34.7	34.7	-16.0§	-12.9	-11.2		
Nordic	34.6	34.3	34.9	-29.9	-26.5	-25.2		
Southern	34.9	35.6	37.1	-5.3	-8.3	-9.4		

<sup>§</sup> Without data of Bulgaria, Croatia and Romania. n.a not available.

Source: Eurostat. 2016.

In EU-28, the Gini coefficient before social transfers (excluding pensions) was 36.5 in 2014 ranging from 34.7 in Eastern to 40.4 in Anglo-Saxon countries. Comparing these values with the Gini coefficient of equivalised disposable income after social transfers (see above at the main indicators), we can calculate to which extent social transfers are reducing income inequality in EU-28. Highest reduction (-25.2%) is observed in Nordic countries, most modest reduction in Southern Europe (-9.4%).

Overall, there is little correlation between the Gini coefficient before social transfers and its reduction by social transfers. But there are some countries (Netherlands, Austria, Hungary, Slovenia, Malta and France) with similar Gini coefficients (31 to 35) and a reduction of about 20%. On the other hand, there are Southern and Eastern European countries (Bulgaria, Latvia, Romania, Cyprus, Estonia, Greece, Lithuania and Portugal) with higher Gini coefficients (37 and over) and a lower reduction (6.8% to 11.2%) by social transfers.

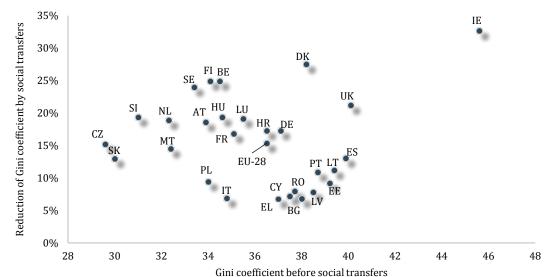


Figure 6-4: Gini coefficient before transfers and reduction by social transfers

Source: Eurostat. 2016.

# Income inequality lower among elderly people

There are also differences between younger and elderly people. The income quintile share ratios are lower for elderly people aged 65 or over (4.1) and higher for the people less than 65 years (5.5).

That is true for all regions in EU-28, again highest in Southern and lowest in Nordic countries. The lower ratio for elderly people indicates a lower gap in pension income than in income by work.

Table 5-5: Income quintile share ratio by age

		quintile share i le less than 65 <u>y</u>		Income quintile share ratio for people 65 years and over				
	2005	2010	2014	2005	2010	2014		
EU-28	n.a.	5.1	5.5	n.a.	4.0	4.1		
Anglo-Saxon	5.9	5.4	5.2	4.4	4.3	4.2		
Continental	3.9	4.4	4.7	3.8	4.0	4.2		
Eastern	6.0§	5.2	5.6	3.2§	3.5	3.6		
Nordic	3.5	3.8	3.9	2.8	3.2	3.5		
Southern	5.9	6.1	6.8	4.7	4.5	4.4		

 $<sup>\</sup>S$  Without data of Bulgaria, Croatia and Romania. n.a. not available.

Source: Eurostat, 2016.

# Income inequality between sexes - Gender pay gap

However, there is also income inequality between sexes. Indicators such as the gender pay gap show the difference in average wages between men and women.<sup>17</sup> With latest data from 2013, the gender pay gap was 16.3% in EU-28 with highest rates in Anglo-Saxon (19.6%) and Continental member states (18.1%). However, we notice the lowest gaps in Eastern (11.5%) and Southern European countries (12.6%). The gap has decreased from 2007 to 2013 in all regions except from Southern Europe where it has increased slightly from 11.5% to 12.6%.



Eastern

Nordic

Southern

Continental

Figure 6-5: Gender pay gap in % of average wage

Without data from Ireland (2013), Croatia (2007) and Greece (2013).

Anglo-Saxon

## Redistribution by taxes

EU-28

Source: Eurostat, 2016.

Besides social transfers, taxes are crucial for redistribution policy and so influence income equality as well. To see to what extend income and property are taxed in European economies we look on OECD data. In 2014, the tax revenue arising from taxes on income, profits and capital gain amounted from 6.7% of GDP in Eastern European countries to nearly 20% in Nordic countries. The share has decreased slightly in Anglo-Saxon, Eastern and Nordic member states since 2005 whereas is has increased in Continental and Southern Europe.

**2007 2010 2013** 

However, the revenue of taxes on property is much lower all over Europe. It is lowest in Eastern European (0.7%) and highest in Anglo-Saxon countries (4.0%). Besides Eastern European countries, the taxes on property are remarkable low in Austria (0.6%) and Germany (0.9%)

<sup>&</sup>lt;sup>17</sup> The gender pay gap refers to the difference in average wages between men and women. The unadjusted gender pay gap is calculated as the difference between the average gross hourly earnings of male and female paid employees as a percentage of average gross hourly earnings of male paid employees.

Table 5-6: Tax revenue as % of GDP

		evenue from tax profits and cap		Tax revenue from taxes on property				
	2005	2010	2014	2005	2010	2014		
Anglo-Saxon	12.9	12.2	11.5	3.9	3.8	4.0		
Continental	10.2	10.0	11.2	1.9	1.9	2.2		
Eastern	7.1	6.5	6.7	1.1	1.0	0.7		
Nordic	20.8	18.6	19.9	1.4	1.3	1.4		
Southern	10.9	10.9	11.8	2.2	1.9	2.3		

Without data of Malta, Bulgaria, Croatia, Latvia, Lithuania, Romania and Cyprus. No data for 2005 for Netherlands and Poland. Source: OECD, 2016.

In most EU-28 member states tax rates for higher incomes are higher than for low incomes. While the tax of a single person without children and 67% of average wage was 25.4% in EU-28 in 2014, it was 34.4% for the same person earning 167% of average wage. That is true for all European regions whit the smallest gap for people in Eastern European countries (27% versus 24.2%) with ident levels in Bulgaria (21.6% each) and Hungary (34.5% each). The difference is relatively small in Continental Europe (30.7% versus 40.1%) with respect to highest level of the tax rate both for low and high incomes.

Table 5-7: Tax rates for different income levels

	Single	e person, 67% o	of AW	Single	Single person, 167% of AW				
	2005	2010	2014	2005	2010	2014			
EU-28	26.0	26.0	25.4	34.7	34.5	34.4			
Anglo-Saxon	23.1	22.2	19.2	30.6	30.4	30.2			
Continental	31.7	30.4	30.7	41.0	39.6	40.1			
Eastern	24.0§	23.6§	24.2	29.9§	27.7§	27.0			
Nordic	30.7	26.0	26.3	42.1	38.1	38.2			
Southern	19.3	20.8§§	21.2§§	29.6	31.5§§	34.6§§			

<sup>§</sup> Without data of Croatia. §§ Without data of Cyprus.

Source: Eurostat, 2016.

## 5.3.2 Formal childcare to reduce gender inequality?

When looking at the parental leave we noticed that the share of men taking parental leave is very low. Formal childcare, respectively the access to formal childcare, could be one determinant to reduce part-time employment among women and increase it among men. However, a lack of formal childcare institutions seems to force women to take parental leave and work part-time, although there are other reasons for this phenomenon.

In EU-28, 13% of children less than 3 years and 35% aged 3 to minimum compulsory school age are in formal childcare. Lowest shares are observed in Eastern Europe (1.8% and 16.3% respectively), highest in Anglo-Saxon and Continental countries.

Table 5-8: Formal childcare by age group

	From 3 year	rs to minimum school age	compulsory	Less than 3 years				
	2005	2010	2013	2005	2010	2013		
EU-28	n.a.	39.0	35.0	n.a.	14.0	13.0		
Anglo-Saxon	63.8	67.2	51.1	23.2	30.2	25.5		
Continental	60.1	49.0	42.2	14.0	14.5	14.0		
Eastern	14.5§	19.7	16.3	0.8§	1.3	1.8		
Nordic	26.8	23.1	19.3	15.8	13.2	12.2		
Southern	32.1	29.3	32.1	13.3	10.4	11.4		

Duration of formal childcare up to 29 hours a week.

§ Without data of Bulgaria, Croatia and Romania.

Source: Eurostat, 2016.

Another determinant when talking about gender equality is the participation of men and women in lifelong learning. That is not only important for participating in labor markets but further within the society. We observe that the participation among women outreaches the participation among men. In EU-28 the participation rate of people aged 25 to 64 was 10.7% in 2014 with highest rates in Nordic (28.7%) and lowest in Eastern European states (4.0%) with rates below 2% in Romania and Bulgaria. Beside these regional differences in the participation rate, there are differences between sexes, too. We notice a higher participation rate of women (11.6%) than for men (9.8%). Noteworthy the differences are greatest in Nordic countries whit a women's participation rate of 34.5% and a men's participation rate of 23.0%. To summarize, participation in education and training is highest in Nordic Europe, strongly driven by women.

Table 5-9: Participation rate in education and training

		Both sexes			Males			Females		
	2005	2010	2014	2005	2010	2014	2005	2008	2011	
EU-28	9.6	9.1	10.7	8.8	8.2	9.8	10.3	10.0	11.6	
Anglo-Saxon	26.2	18.6	15.1	21.9	15.7	13.6	30.3	21.4	16.7	
Continental	8.1	7.8	12.8	8.1	7.5	11.9	8.1	8.0	13.7	
Eastern	4.1	4.1	4.0	3.6	3.7	3.7	4.6	4.5	4.3	
Nordic	21.5	26.2	28.7	17.5	20.4	23.0	25.6	32.1	34.5	
Southern	7.1	7.6	8.3	6.5	7.1	8.0	7.6	8.1	8.7	

People aged 25 to 64. Participation within the last 4 weeks.

Source: Eurostat, 2016.

#### 5.3.3 Employment rates of immigrants

One aspect of integration policy is the access of immigrants to the labor market and therefore we looked at the employment rate of native and foreign-born people as an indicator of integration policy. One determinant for their participation in the labor market is education. The higher the education of people the higher the employment rate. We now look at native and foreign-born (first generation of immigrants) people if that is true for both of them.

Table 5-10 Employment rates by migration status and education attainment

		Levels 0 – 2 ow educatio		Levels 3 and 4 Medium education				Levels 5 – 8 High education		
	Total	Native- born	Foreign- born	Total	Native- born	Foreign- born	Total	Native- born	Foreign- born	
Anglo-Saxon§	56.3	57.2	51.7	72.7	73.5	67.9	84.3	85.7	79.2	
Continental§§	41.2	40.4	45.5	66.9	67.7	60.0	81.3	83.0	71.1	
Eastern	28.6	28.3	41.0888	65.0	65.1	60.2%	82.5	82.5	80.6%	
Nordic%%	46.2	46.5	48.9	76.3	77.5	68.1	85.9	87.9	76.5	
Southern	43.3	42.4	49.3	59.2	59.0	60.3	74.8	75.8	66.8	

ISCED 2011: ISCED 0: Early childhood education, ISCED 1: Primary education, ISCED 2: Lower secondary education, ISCED 3: Upper secondary education, ISCED 4: Post-secondary non-tertiary education, ISCED 5: Short-cycle tertiary education, ISCED 6: Bachelor's or equivalent level, ISCED 7: Master's or equivalent level, ISCED 8: Doctoral or equivalent level. All data from 2014.

Looking at the employment rate by the educational attainment leads to expected findings that the employment rate increases by educational attainment rising. If further looking at the migration status we observe that the increase of the employment rate with rising educational level of foreign-born people is lower in each country than for native-born people. One reason may be the different countries of birth of immigrants and therefore different reasons to work abroad. Another reason may be that the jobs of immigrants are less adequate to their educational attainment than among native-born people, which is a highly discussed issue within integration policy.

Furthermore, we notice that the employment rate of native-born people with educational levels 0-2 (ISCED  $2011^{18}$ ) are lower in all regions except the Anglo-Saxon countries. One reason for the higher employment rate of foreign-born may be the incentives to work are higher for foreign-born people. That in turn may be caused of lacking possibilities of immigrants (e.g. no support of the family or friends) or even a worse access to social benefits (or missing knowledge of it). That altogether my lead to a higher need for foreign-born people to work than for native born.

The opposite is true for people with educational levels 5 – 8. Among those, the employment rate of foreign-born people is lower throughout all EU-28 countries.

If we look at foreign-born elderly people aged 50 years and over we see great differences in their employment rate compared to people born in the reporting country. The overall employment of elderly people rate was 36.3% in EU-28 with rates above 40% in Nordic and Anglo-Saxon countries in 2014. It catches one's eye that the employment rate of people born in a country but the reporting one (38.9%) is higher than for people born in the reporting country in most European regions. That is even more obvious for people born in a country

<sup>§</sup> Without data of Ireland. §§ Without data of Germany and Netherlands. §§§ Without data of Lithuania, Poland, Romania and Slovakia. % Without data of Romania. %% Without data of Denmark. Source: Eurostat, 2016.

 $<sup>^{18}</sup>$  ISCED = International Standard Classification of Education. It is the reference international classification for organising education programmes and related qualifications by levels and fields.

outside EU-28 (45.6%) than for people born in an EU-28-country. The greatest difference is observed in Southern Europe with an employment rate of 30.9% for people born in the reporting country and 60.1% for people born extra EU-28.

The exception is Eastern Europe where the participation rate among people born abroad is higher than for people born in the reporting country. The situation for all people is quite the same in Continental Europe with rates varying between 35% and 40%.

Table 5-11: Employment rates for people aged 50 or over by place of birth

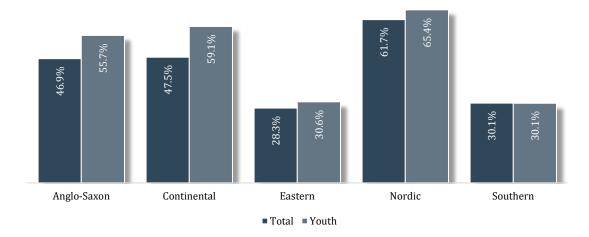
	Î			Di il i Fi						
	Birth in	reporting o	country		J-28-counti orting coun		Bir	Birth extra EU-28		
	2006	2010	2014	2006	2010	2014	2006	2010	2014	
EU-28	32.4	34.2	36.3	31.3	34.5	38.9	39.2	43.4	45.6	
Anglo-Saxon	39.0	40.0	41.3	33.3	37.1	41.7	44.5§	46.9	48.4	
Continental	32.7	35.1	38.3	30.3§§	32.8§§	35.5§§	37.1§§	38.2§§	39.3§§	
Eastern	32.3	31.5	35.0	18.9%	19.6%	19.2%	18.0%%	21.8	28.2	
Nordic	49.1	48.5	48.2	51.6	52.4	57.5	42.7	50.0	52.5	
Southern	27.3	29.0	30.9	32.7%%%	39.4	45.7	51.2	57.6	60.1	

<sup>§</sup> Without data of Malta. §§ Without data of Germany. % Without data of Lithuania, Romania, Bulgaria (all years) and Croatia (2006). %% Without data of Romania (all years), Bulgaria and Slovakia (2006 and 2010). %%% Without data of Portugal. Source: Eurostat, 2016.

## 5.3.4 Confidence in institutions, voluntariness and charity

We identified corruption and the shadow economy as indicators for social cohesion as both usually stand for lacking confidence of people in institutions. In the sequel that may lead to decreasing solidarity within societies and therefore negatively affect social cohesion. Therefore, confidence in institutions is an important matter when discussing social cohesion. When we look at the confidence of people in their national government, we first see great differences within the European regions with highest confidence in Nordic (61.7%) and lowest in Eastern (28.3%) and Southern (30.1%) European states.

Figure 6-6: Confidence in national government as % of population



Data from 2012. Youth = people aged 15 to 24 years. Without data of Malta, Bulgaria, Croatia, Latvia, Lithuania, Romania and Cyprus.

Source: OECD, 2016.

Young people aged 16 to 24 years are more confident than total population with highest difference in Continental Europe where 47.5% of total population but 59.1% of young people have confidence in their governments. The difference is by far greatest in Austria (41.0% versus 61.5%).

Moreover, these findings correspondent to the level of satisfaction of the people of those countries. While people living in Nordic EU-member states are most satisfied with their overall life (8.0) and their living environment (7.9), people in Southern and Eastern Europe are least satisfied. To sum up, the higher the confidence the higher the satisfaction.

Table 5-12: Satisfaction, volunteering, charity

	Satisfaction with§					Volunteering <sup>§§</sup>	Giving Index <sup>§§§</sup>
	financial situation	accomo- dation	job	overall life	living environme	2006	2013
EU-28	6.0	7.5	7.1	7.1	7.3	31.7	n.a.
Anglo-Saxon	6.2	7.9	7.0	7.3	7.8	16.6	55.3
Continental	6.5	7.6	7.2	7.3	7.7	26.5	37.2
Eastern	5.6	7.2	7.1	6.8	7.2	31.9	23.1
Nordic	7.6	8.3	7.9	8.0	7.9	25.8	42.2
Southern	5.5	7.2	6.9	6.7	6.5	27.5	28.9

<sup>&</sup>amp; Data from 2013. n.a. not available. Source: Eurostat, 2016.

<sup>§§</sup> Participation of young people aged 16 to 29 years in informal voluntary activities. Without data of Croatia, Romania and United Kingdom. Source: Eurostat, 2016.

<sup>§§§</sup> The giving's report worldwide ranks the countries within the categories "helping a stranger", "donating money" and "volunteering time" and calculates an overall index. In 2013, the leading countries (Myanmar and USA) reached 64 points, and Ireland (60 points) was the best European country (fourth place). Source: Charities Aid Foundation, 2014.

Another indicator for solidarity and therefore social cohesion is the participation of young people in informal voluntary activities. Latest data for European countries are from 2006 with highest participation in Eastern European Countries (31.9%) and lowest in Anglo-Saxon ones (16.6%). Similar to that is donating or in a broader sense giving. All those activities can make the country a more generous place to live. The World Giving Index measures the activities helping a stranger, donating money and volunteering time and is published by the Charities Aid Foundation. When we view the European countries the highest score in this index is achieved by Anglo-Saxon countries, namely Ireland (60) leading the European countries.<sup>19</sup> Lowest scores are observed for Eastern European countries (23.1).

Finally, we find a correlation between people's confidence in national government and the shadow economy. The higher the confidence the lower the shadow economy in a member state.

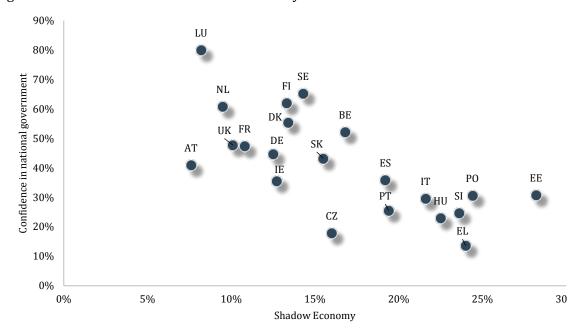


Figure 6-7: Confidence and Shadow Economy

Data for 2012.

Source: OECD, 2016 and Schneider, 2016.

<sup>&</sup>lt;sup>19</sup> Highest score in the World Giving Index 2014 was 64.

# 6 Health

## 6.1 Introduction

It is intuitively clear, but also well documented that poorer people die younger and are sicker than richer people. More generally, mortality and morbidity are negatively related to many individual socioeconomic characteristics such as wealth, education, social class and income. These negative relationships have first been documented as early as 1820 for the arrondissements of Paris. Of course, they are found in many younger studies, but even ancient Greek and Chinese texts relate to the negative relationship between health and socioeconomic status, which has been termed "the gradient" in recent decades (Deaton, 2002).

Focusing on the present and European Union countries, the gradient implies two things. Firstly, since income and wealth increased quite substantially within the last decades, European Union citizens live, on average, longer and also healthier than previous generations. Secondly however, alongside the increase in income and wealth inequality, the existing differences in individual health status between and within the EU member states tend to increase.

Since many people find it unjust that next to the obvious differences in income and wealth, substantial differences in the length (life expectancy) and quality of life (health status) persist and even increase, it is a primary aim of European politics to reduce the disparities in individual health status (European Commission, 2009).

Against the background of the gradient, however, designing appropriate policy measures turns out to be difficult. For example, one frequently discussed option is that tackling income inequality will, by the gradient-relationship, reduce health inequality. But while there might be an effect of income on health, there might as well be a reversed effect (health on income) via the ability to work (Deaton, 2002). The latter effect is not reduced by decreasing income inequality. Another example: If education reduces mortality and morbidity, it seems desirable to bring in health aspects into education, in order to strengthen this effect. If this policy works, the overall health status will improve, but health inequality will rise because better educated (and therefore healthier) people will benefit more than the poorly educated (and sicker) people. Deaton (2002) thus calls for a more general health policy, which should guarantee access to medical treatment and focus on education and income rather than health related behavior and health care.

In this chapter, we document main indicators and potential determinants of health. For clarity reasons, we do so, just as the other chapters presented in this study, by comparing the Anglo-Saxon, Continental, Eastern, Nordic and Southern parts of the Union, while we seldom focus on specific countries. Whenever possible, we disaggregate with respect to gender and/or income levels.

## 6.2 Main indicators

With respect to the policy dimension "Health", we identified the following main indicators:

- Life expectancy
- Perceived health status
- mortality from diseases

### 6.2.1 Life expectancy

The first main overall indicator of health to be discussed here is life expectancy. As a matter of fact, increasing or longer life expectancy alludes to a better overall health status, although the term "health" is of course much more encompassing and does not merely result from living long. Figure 7-1 documents the average life expectancy (at birth) in the specified regions for 1970 and 2013 and differentiates between the male and female population. In 2013, female life expectancy at birth was 83.8 years compared to 78.4 years for men. Average life expectancy has, compared to 1970, increased in all regions. Also, female life expectancy exceeds male life expectancy in all EU countries for which data has been available. However, there has been some convergence until 1970. On Average, male life expectancy increased by 10.1 years, compared to 9.2 years for women. Only in the eastern part of the Union, the increase in male life expectancy (+7 years) was slower than the increase in female life expectancy (+7.8 years on average). The countries with the highest life expectancy among the EU-countries are Italy (85.2 and 80.3 years for females and males), Spain (86.1 and 80.2 years) and Sweden (83.8 and 80.2 years). Lowest life expectancies are observed in Hungary (79.1 and 72.2 years), Estonia (81.7 and 72.8 years) and Slovakia (80.1 and 72.9 years).

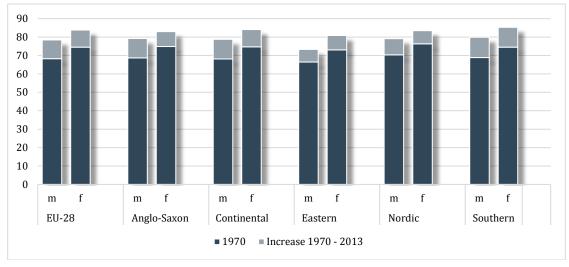


Figure 7-1: Life expectancy at birth in years

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

Source: OECD. 2015b

The above analysis has shown that the gender-life-expectancy gap has on average been reduced from slightly more than six years in 1970 to slightly more than five years in 2013. The education-life-expectancy gap is even bigger for some countries. Unfortunately, data is scarce and showing a graph is impossible, we thus list some striking numbers in the text. In Czech Republic, , Estonia, Hungary and Poland, the difference in life-expectancy between men with tertiary and men with compulsory education is more is more than ten years (in Czech Republic, it is almost 18 years, in Estonia 15). In Italy, the gap is estimated to be 3.6 years for men. For women, the education-life-expectancy gap is lower, with a highest value of 8 years (Estonia) and a lowest value of 1.8 years (Italy).

#### 6.2.2 Perceived health status

The perceived health status is based on the survey question "How is your health in general", which is regularly included in health surveys carried out in several OECD countries. The answers are, admittedly, somewhat subjective, however, they have been shown to be a good predictor for future health care use and mortality (DeSalvo et al., 2005).

Figure 7-2 compares the percentages of people reporting to be in good health for the lowest and highest income quintiles. On average over all EU member states, 60% of the people from the lowest income quintile say that they are in good health. For the highest income quintile, the fraction is higher by almost 20 percentage points.

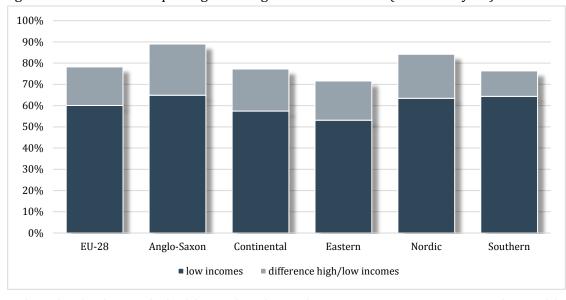


Figure 7-2: Percent reporting to be in good health in 2013 (or nearest year)

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

Source: OECD, 2015b

In general, self-reported health for the highest income quintile is highest in the Anglo-Saxon regions and lowest in Eastern Europe. Ireland (91%), Sweden and the United Kingdom (both 89%) yield the highest values in a country-wise perspective. For the lowest income quintile, self-reported health is highest in Southern Europe and in the Anglo-Saxon-Region, with the highest values being observed in Ireland (77%), Greece (75%) and Sweden (70%) and the lowest in Estonia (39%), Portugal (40%) and Czech Republic (48%).

# 6.2.3 Mortality from diseases

Other valid indicators of overall health are mortality rates from diseases. Admittedly, analyzing the incidence of certain diseases would be a more direct measurement of health, but the incidence is in OECD (2015b) only available for cancer. Thus, we chose to plot mortality rates for heart diseases, cerebrovascular diseases and cancer in Figure 7-3. Unless the quality of medical treatment is different between the plotted regions, mortality rates are perfectly usable for comparing the average health status in the different regions.

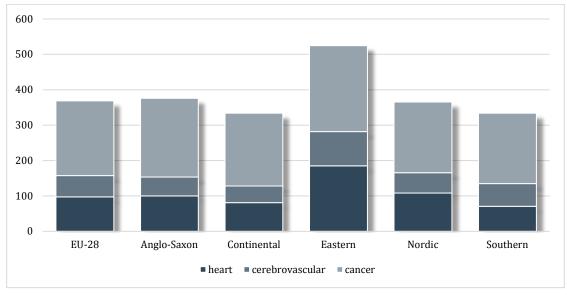


Figure 7-3: Age-standardized mortality rates per 100,000 population 2013

Age-standardized rates per 100,000 population.

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

Source: OECD, 2015b

Figure 7-3 is consistent with Figure 7-1 in that it shows the highest mortality rates for Eastern Europe. In particular, mortality from heart diseases there accounts for almost twice the EU-28 average. But also cerebrovascular diseases are most frequent (66% above the EU-28 average) in Eastern Europe. While the lowest mortality rate for heart diseases is being observed in France (42.5 per 100,000), the rate for Slovakia is almost ten times as high (404.4

per 100,000). Moreover, very high mortality rates are observed in Hungary (297.4/100,000), Czech Republic and Estonia (both 260/100,000).

Cerebrovascular diseases are most frequent in Slovakia (136.7/100,000), Hungary (118.4/100,000) and Greece (105/100,000) and lowest in France (38.1/100,000), Spain (44.9/100,000) and Luxembourg (46.3/100,000). Interestingly however, the distribution of cancer mortality is much more equal, but at higher levels. It is lowest in Finland (175.8/100,000) and highest in Hungary (286.3/100,000) such that the relative difference between the lowest and highest country rate is only 60%.

From the above discussion follows that, as noted earlier, there are substantial health inequalities between the different countries of the European Union. In a regional perspective, Eastern Europe seems to be disadvantaged, with lower life expectancy (see Figure 7-1) and higher mortality rates (see Figure 8-1). Moreover, substantial health differences within countries along income levels and gender have been identified.

#### 6.3 Potential determinants

From the gradient-discussion and the research on it follows that income, wealth, education and social class are potential determinants of the individual health status. In addition, however, many correlates of the gradient variables like lifestyle or risk attitudes may serve as determinants for individual health. On a more aggregate level, health expenditure as well as access to medical treatment might determine a region's average health status. In this subsection we discuss some of the mentioned determinants and provide aggregate data for comparison.

#### 6.3.1 Lifestyle

The potentially health-relevant lifestyle features discussed here are tobacco and alcohol consumption as well as obesity.

#### <u>Tobacco consumption</u>

Figure 7-4 shows the percentage of adults smoking tobacco products for 2013 and differentiated with respect to gender. The rates are higher for men than for women, and Eastern Europe shows the highest rates for men. For women, however, smoking in Eastern Europe is below average, and it is more equally distributed than male smoking. For men, the highest percentages are found for Latvia (52%), Greece (44%) and Estonia (46%), while the lowest rates are observed in Sweden (10%), Luxembourg (18%), Denmark (19%) and Finland (19%). For women, smoking is lowest in Portugal (11%), Sweden (12%) and Slovakia (13%), while it is highest in Greece (34%), Hungary (21%) and France (20%).

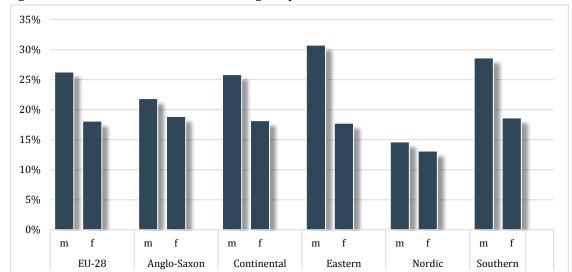


Figure 7-4: Percent of adults smoking daily 2013

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Lithuania, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

Source: OECD, 2015b

# Alcohol consumption

The distribution of alcohol consumption is fairly equal across the specified regions, as shown by Figure 7-5. It is highest in Eastern Europe, but the difference in consumption (measured in average consumption per capita and year) with Continental Europe is less than one percent. In Southern and Nordic Europe, alcohol consumption is below average. In a country-wise perspective, the highest values are measured for Lithuania (14.3 litre/year), Austria (12.2) and Estonia (11.8), while Italy (6.1), Greece and Sweden (7.4) are the countries with lowest consumption.

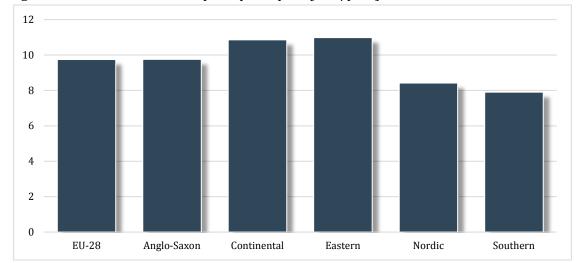


Figure 7-5: Alcohol consumption per capital [litre/year]

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

Source: OECD, 2015b

# **Obesity**

The rise in obesity is one of the primary public health concerns, since obesity is shown to have negative impacts on a variety of health problems, including hypertension, high cholesterol, diabetes, cardiovascular and musculoskeletal diseases as well as respiratory problems (OECD, 2015b). For the discussion below, obesity is defined via the Body-mass index BMI (weight/height²), adults with a BMI higher than 30 are defined as being obese. The data included in Figure 7-6 are partly self-reported based on estimates of height and weight in population based health interview surveys and partly derived from health examinations. Estimates from health examinations are typically higher and more reliable. Thus, since some values alluding to Figure 7-6 are self-reported, the values might be underestimated.

According to Figure 7-6, obesity is above average in Anglo-Saxon, Continental and Eastern Europe and below average in the North and the South. The highest estimates are observed in Hungary (29%, data from health examinations), Lithuania (26%, self-reported data) and the United Kingdom (25%, data from health examinations), the lowest values are observed in Italy (10%), the Netherlands (11%) and Sweden (12%). All lowest-values data are self-reported.

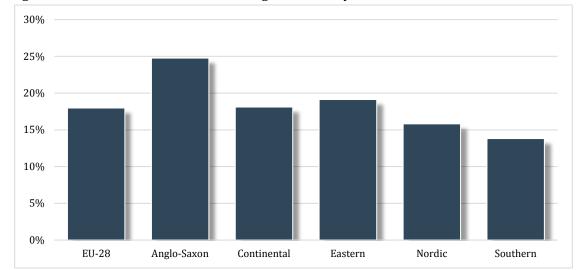


Figure 7-6: Percent of adults suffering from obesity

Self-reported as well as measured data.

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Lithuania, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

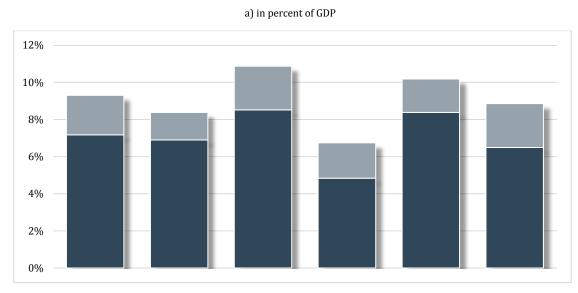
Source: OECD, 2015b

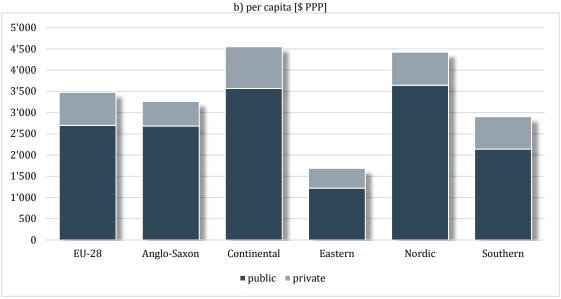
# 6.3.2 Health expenditure

Aggregate expenditure on health may in a broad sense determine the overall health status in that higher expenditure typically indicate higher consumption of health services. Due to differences in efficiency however, the correlation is not necessarily perfect. Since a thorough discussion of health care efficiency is beyond the scope of this background study, we restrict our analysis to a broad comparison of health expenditure in the specified regions. Figure 7-7 shows the results.

The fraction of private with respect to total expenditure ranges from 21% (Anglo-Saxon and Nordic area) to 39% (Eastern Europe). In percent of GDP, expenditure is highest in Continental Europe and by far below average (difference 40%) in Eastern Europe. Assuming that higher expenditure should lead to better health status, this pattern is consistent with higher mortality and lower life expectancy in Eastern Europe (see Figure 7-1 and Figure 7-3). Highest total expenditure levels are recorded for the Netherlands, Germany and Sweden (11%), whereas the levels are lowest in the Baltic area (Latvia, Estonia and Lithuania, 5.3%, 6% and 6.1%).

Figure 7-7: Private and public health expenditure, 2013 (or nearest year)





Self-reported as well as measured data.

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

Source: OECD, 2015b

Investigating per capita spending shows the same pattern, but the relative differences between countries and regions are higher. Expenditure in Eastern Europe is only at 48% of the EU-28 average, while expenditure in Continental Europe exceeds the EU-28 average by 30%. The countries with the highest spending measured in terms of GDP are also the

countries with highest spending in terms of PPP dollars (Netherlands: total expenditure \$ 5,131 per year, Sweden: \$ 4,905 per year and Germany: \$ 4,818 per year). Per capita spending is lowest in Latvia (\$ 1,216 per year), Poland (\$ 1,528 per year) and Estonia (\$ 1,542 per year).

#### 6.3.3 Access to health care

Finally, we discuss two indicators pointing towards the issue of access to health care. This issue is of paramount importance according to Deaton (2002), since if for specific groups, access to health care is limited for financial or other reasons, potentially desirable health policies addressing education etc. will be less effective.

One potentially valid indicator is health expenditure out of the pocket (i.e. not covered by public or private insurance or general government expenditure). Figure 7-8 shows out-of-pocket health expenditure as a share of final household consumption. Higher numbers indicate higher risk of non-access to medical treatment, since people with low income might be forced to forgo medical treatment due to limited budget.

Interestingly, out of pocket health expenditure is highest in Southern and Northern Europe. In those regions, however, health as measured by mortality rates from diseases is below average.

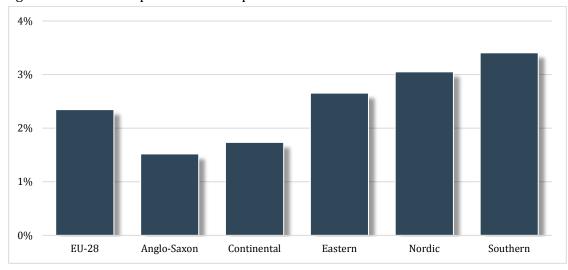


Figure 7-8: Out of pocket health expenditure of households

Self-reported as well as measured data.

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Poland, and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

Source: OECD, 2015b

Out of pocket expenditure is lowest in the Netherlands (1.3%), the United Kingdom (1.4%) and France (1.4%), whereas it is highest in Greece (4.1%), Hungary (4%) and Portugal (3.9%).

Another and supposedly more direct indicator of limitations in the access to medical treatment is the fraction of people indicating in the EU-SILC survey that medical or dental treatment was needed but not received. Figure 7-9 shows the fractions of people reporting such unmet care needs due to expensiveness, too far travels or too long waiting time in the year preceding the survey.

Interestingly, the difference in the fractions between the lowest and highest income is on average greater for dental than for medical treatment. The highest differentials between income categories are reported for Southern Europe. In Eastern Europe, more than twice as much people from the highest quantile than in the EU-28 average report unmet medical care needs. But unlike all other regions, dental care seems in Eastern Europe (for both low and high incomes) easier accessible than medical care. The highest shares of unmet dental care for low-income people are reported from Latvia (36%), Portugal (24%) and Italy (19%), the lowest from Slovenia (1.5%), Czech Republic and the Netherlands (2.4%).

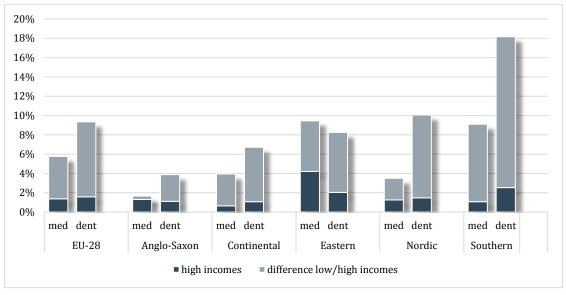


Figure 7-9: Unmet care needs

Self-reported as well as measured data.

Analysis is based on data on Ireland and the United Kingdom (Anglo-Saxon), Austria, France, Germany Luxembourg and the Netherlands (Continental), Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Slovakia and Slovenia (Eastern), Denmark, Finland and Sweden (Nordic) and Greece, Italy Portugal and Spain (Southern).

Source: EU-SILC 2013, in OECD, 2015b

# 7 Intergenerational Justice

#### 7.1 Introduction

Intergenerational justice has become more relevant in the last years. Boosted by the financial crisis and a lot of austerity measures in the aftermath, justice between generations is – besides other – one affected dimension. When economic growth slows down, the distribution of the results of economic activity (GDP) becomes more a subject.

Both in theoretical discourse and in the practical application, questions of intergenerational justice are closely linked with questions of sustainability. In particular, the hypothesis is formulated that states the political system, to a greater extent, must justify the significance of the long-term outcomes of current decisions (Berlin-Institut für Bevölkerung und Entwicklung, 2016). These current decisions touch many different aspects. Policy fields concerning family and social transfers, education and environment are relevant issues as well as fiscal policy as today's debts must be paid tomorrow.

# 7.2 Main Indicators

With respect to the policy dimension "Intergenerational Justice", we identified the following main indicators:

- Family policy and inheritance
- Government debt and deficits
- Schooling
- Long term investment in research and infrastructure
- Environmental expenditures
- Pensions

# 7.2.1 Family policy and inheritance

Intergenerational justice is first of all linked to families. Therefore, we look at public family benefits spending as an indicator of the status of families within societies. Family benefits spending refer to public spending on family benefits, including financial support that is exclusively for families and children. Broadly speaking there are three types of public spending on family benefits: (1) Child-related cash transfers (cash benefits) to families with children, (2) public spending on services for families (benefits in kind) with children, (3) financial support for families provided through the tax system (OECD, 2016a).<sup>20</sup>

In 2011, public family spending was highest in Anglo-Saxon and Nordic countries with 4.0% and 3.6% of GDP. However, it was lowest in Southern and Eastern countries with 1.4% and 1.8%. Moreover, since 2005 the public family spending has risen more in Anglo-Saxon and Nordic countries than in Eastern and Sothern Europe.

<sup>&</sup>lt;sup>20</sup> Spending recorded in other social policy areas, such as health and housing, also assist families, but not exclusively, and it is not included in this indicator.

Table 7-1: Public family spending as % of GDP

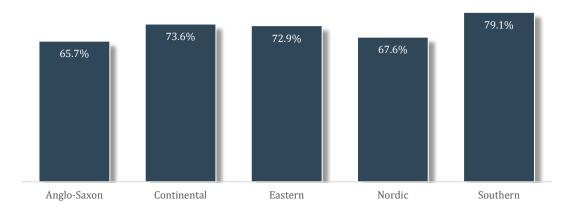
	2005	2008	2011§
Anglo-Saxon§§	3.1	3.5	4.0
Continental	2.4	2.4	2.5
Eastern§§§	1.6	1.6	1.8
Nordic	3.3	3.4	3.6
Southern§§§§	1.2	1.4	1.4

<sup>§</sup> Data for 2012, 2013 and 2013 not available. §§ Without data of Malta. §§§ Without data of Bulgaria, Croatia, Latvia. Lithuania, Romania. §§§§ Without data of Cyprus. Source: OECD, 2016.

# Family business and inheritance

To consider distribution of wealth within the society and across generations, we identify inheritance and family businesses. The share of people inheriting private bequests or family businesses is a crucial indicator for intergenerational justice.

Figure 8-1: Family businesses as % of all registered businesses



Data from 2013. Without data of Croatia. Source: European Family Businesses, 2016

In 2013, we saw quite a similar share of family businesses in all regions of EU-28. About 70% of companies were owned by families and thus inherited by their descendants. In Southern Europe, it was even a larger share of 79.1% with the lowest share in Anglo-Saxon countries (65.7%). The lowest percentages of family owned firms were recorded in Lithuania (38%), Sweden (55%) and Latvia (58%). The highest percentages Estonia, Cyprus and Slovakia where in all three of them 90% of the firms are in family property.

There exists very few data on inheritance and wealth distribution within the European Union. Within the Household Finance and Consumption Survey (HFCS), the ECB provides among other data also some information about the share of population being gifted with positive inheritance.

Now we only have access to data on 13 countries among which there are the six states of the central region like Germany, France, Belgium, Luxembourg, Netherlands and Austria. In this region, we have an average of 40% of the population being heir. In the other regions, we have only some representative countries covered.

Table 7-2: Heirs as % of total population

Average (13 countries)	33.0
Belgium	35.0
Germany	34.0
Estonia	30.0
Greece	31.0
France	40.0
Cyprus	44.0
Luxembourg	29.0
Malta	32.0
Netherlands	32.0
Austria	35.0
Portugal	30.0
Slovenia	30.0
Slovakia	38.0

Source: Fessler and Schürz, 2015.

From the covered countries, we find the lowest percentage of heirs in Luxembourg (29%), Portugal and Slovenia (30% each). The highest shares come from Slovakia (38%), France (40%) and Cyprus (44%).

Inheritance is the key determinant in accumulation of private wealth across generations. The ECB Household Finance and Consumption Survey elaborates on the connection between private wealth accumulation and the extent of a nation's social system (Fessler and Schürz, 2015). Their findings suggest that social services provided by the state are substitutes for private wealth accumulation and partly explain observed differences in levels of household net wealth across European countries.

Davies and Shorrocks (2000) look at wealth distributions in several countries and find that wealth is more unequally distributed than income; precisely because intergenerational accumulation and inheritance matter. Thus when considering intergenerational fairness and its respective determinants, we have to reflect about inheritance at its core. Accumulation of wealth does not only determine fairness within today's society but through inheritance rather fairness among generations.

#### 7.2.2 Government Debt and Deficits

The debt we make today will weigh heavy on the shoulders of our next generation, so we look at the today's debt level of EU-28 member states and how they have developed since 2005. In 2014, EU-28 public debt accounted for about 86.8% of GDP. We can clearly observe the highest rates in Southern Europe where debt has risen to 124% of GDP.

Table 7-3: Public debt and financial deficit

		Public debt		Financi	Financial surplus (+) /deficit (-)				
	2005	2010	2014	2005	2010	2014			
EU-28	61.8	78.4	86.8	-2.6	-6.4	-3.0			
Anglo-Saxon	40.7	77.2	89.4	-3.2	-11.2	-5.6			
Continental	66.9	80.3	83.9	-3.0	-5.2	-1.8			
Eastern	35.0	45.2	49.6	-3.0	-6.3	-2.8			
Nordic	43.0	41.6	48.7	2.9	-1.4	-1.3			
Southern	78.3	96.0	124.0	-2.6	-7.3	-4.5			

Source: Eurostat, 2016.

Lower rates come from Eastern (49.6%) and Nordic (48.7%) Europe while the Continental (83.9%) and Anglo-Saxon (89.4%) regions go more or less with the average.

The highest public debt comes from Southern Europe. Greece (178.6%), Italy (132.3%) and Portugal (130.2%) were the most indebted countries of EU-28 in 2014. The other side of the spectrum is less expectable since Estonia (10.4%), Luxembourg (23%) and Bulgaria (24%) are in the lead.

Between 2005 and 2014, public debt has risen in all five regions of Europe. However not by the same amounts. It is noteworthy that not Southern Europe but the Anglo-Saxon region has increased their debt by the largest percentage of over 100% rising from 40.7% in 2005 to 89.4% in 2014. The Southern region has rose their debt share by over 50% between 2005 (78.3%) and 2014 (124.0%), of course starting from a higher level. Maybe it is noteworthy to see that Germany is far from being in the lead when talking about public debt. With 74.9% in 2014, it is in center of the ranking and with 66.9% in 2005, it was even in the lower third. Greece however was last in 2005 (107.3%), 2010 (146.2%) and 2014 (178.6%). The debt level keeps on rising despite the haircuts.

Let's look at the public deficit as an indicator how public debt is evolving over time. As discussed, public debt has risen monotonically between 2005 and 2014 in almost all European countries. In contrast, financial deficits reached a peak in 2010 and came down significantly in 2014 proving the impact of the austerity program implemented during the financial crisis. In 2014 the financial deficits were least in the Nordic region (-1.3%) followed by Continental (-1.8%) and Eastern (-2.8%) Europe. The Anglo-Saxon (-5.3%) and the Southern (-4.5%) had worse budget balances in 2014 and seem to be behind also in previous years. These regions of course include the outliers Greece and Ireland, which accounted for the worst value (-32.3%) in our dataset in 2010. However, both of them have improved their household management since 2010 and registered a deficit of -3.9% (Ireland) and -3.6% (Greece) in 2014. The countries with the best household management in 2014 were Estonia (1.5%), Luxembourg (1.4%) and Denmark (0.7%) with Germany (0.3%) coming in fourth. These are also the only countries generating surpluses in 2014. On the other hand of the scale we find Cyprus (-8.9%), Portugal (-7.2%) and Spain (-5.9%).

Besides the recorded government debt, government guarantees are an indicator of the financial stability of a state as well. Guarantees mean a potential future expenditure and increasingly came in focus in the aftermath of the financial crises. In 2014, highest government guarantees could be observed in Nordic (14.0%) and Continental (11.2%) EUmember states, while they were very low in Eastern European countries (4.2%). In all regions the government guarantees have been decreasing since 2010 except Southern Europe where they have risen from 5.7% in 2010 to 8.9% in 2014. There was a sharp drop in Anglo-Saxon countries from 2010 to 2014 due to both Ireland (96% to 13.3%) and United Kingdom (27.8% to 8.9%).

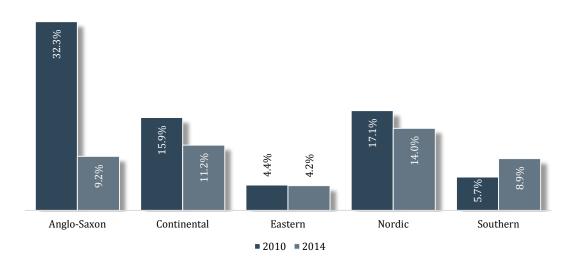


Figure 8-2: Government guarantees in % of GDP

Source: Eurostat, 2016.

#### 7.2.3 Long Term Investment in Research and Infrastructure

Expenditures in research and development and infrastructure are an important determinant in respect of intergenerational justice as these factors are crucial for future economic growth and income. The respective today's expenditures are long-term benefits for future generations.

In 2014, the total investment (public and private) into basic research and development in the EU-28 accounted for 2% of GDP. Higher rates can be observed in Continental (2.5%) and Nordic (3.1%) European countries, while the Eastern (1.0%) and Southern (1.2%) parts of Europe lie behind. The bottom countries investing the least percentage of GDP into basic research and development are Latvia (0.7%), Cyprus (0.5) and Romania (0.4%). The top investing countries are all the Nordic countries Denmark (3.1%), Sweden (3.2%) and Finland (3.2%).

From 2005 to 2014 investment has increased overall and at least not decreased in all five regions of Europe although the Nordic countries had a peak in 2010 with 3.3% of GDP that went down to 3.1% in 2014 which they had already invested in 2005.

Table 7-4: Long term investment in research and infrastructure as % of GDP

	Basic re	esearch & develo	pment	Publi	Public gross net investment				
	2005	2010	2014	2005	2010	2013§			
EU-28	1.8	1.9	2.0	n.a.	3.5	3.0			
Anglo-Saxon	1.6	1.7	1.7	1.6	3.2	2.6			
Continental	2.2	2.4	2.5	2.9	3.2	3.0			
Eastern	0.7	0.8	1.0	3.7	5.1	4.1			
Nordic	3.1	3.3	3.1	3.6	4.0	4.2			
Southern	1.0	1.2	1.2	3.688	3.8	2.3			

<sup>§ 2014</sup> not yet available. §§ Without data of Greece. n.a. not available.

Source: Eurostat. 2016.

Public gross net investment is the sum of all public money that goes into the acquisition of capital such as residential and non-residential buildings, roads, bridges, airports and railways. In 2013, the EU-28 member states have invested 3.0% of their public spending in such goods. Spain (2.1%), Cyprus (2.0%) and Ireland (1.8%) registered the lowest rates, while Sweden (4.5%), Romania (4.6%) and Estonia (5.5%) were in the lead.

We see an overall decrease between 2010 and 2013 when public gross net investment of the EU-28 went from 3.5% in 2010 down to 3.0% of GDP in 2013. This trend holds for all regions except the Nordic countries, which can register an increase from 4.0% in 2010 to 4.2% in 2013. For all other regions, we can see peaks in 2010 that came down in 2013. However, the Eastern and Continental region of Europe still maintain higher levels than in 2005, which is not true for Anglo-Saxon and Southern Europe.

Those findings in mind we in contrast observe intramural R&D expenditures having increased since 2005 from 1.8% to 2.0% of GDP in EU-28. Noteworthy, this increase is true for all regions except the Nordic countries where they slightly decreased, but still are the highest in Europe (3.1%). The expenditures have remained unchanged in Southern Europe (1.2%). The highest rise (52.3%) in intramural R&D expenditures has occurred in Eastern European countries from 0.7% in 2005 to 1.0% in 2014.

European Union Anglo-Saxon Continental Eastern Nordic Southern

Figure 8-3: Total intramural R&D expenditure as % of GDP

Source: Eurostat, 2016.

# 7.2.4 Environmental expenditures

Preserving our natural surrounding and looking after our environment is an issue at the heart of intergenerational justice. Let us have a look how Europe acts in this concern.

Table 7-5: Public spending on preserving the environment as % of GDP

	2005	2010	2013
EU-28	n.a.	0.9	0.8
Anglo-Saxon	0.6	1.0	0.8
Continental	0.7	0.8	0.8
Eastern	0.6	0.7	0.8
Nordic	0.4	0.3	0.3
Southern	0.9§	0.9	0.8

Data for 2014 not yet available. § Without data of Greece. n.a. not available.

Source: Eurostat. 2016.

In 2013, the EU-28 member states spent 0.8% of their GDP on pollution prevention or other environmentally related activities. What attracts attention are the Nordic countries, which kind of step out of line here. While all other regions spend 0.8% corresponding to the European average, the Nordic region spent only 0.3% and they have been spending less than the rest ever since 2005. According to this observation, the least spending countries in 2013 were Finland (0.3%), Sweden (0.3%) and Denmark (0.4%), while Luxembourg (1.2%), Malta (1.4%) and the Netherlands (1.5%) lead the way.

Concerning the trend, we can observe the same pattern as in many of the other indicators we just discussed. We see a rise in the rates of spending between 2005 and 2010, which was followed by a decrease to 2013, settling at a slightly higher level than in 2005.

#### 7.2.5 Pensions

We put sight on today's pension expenditure as a starting point to estimate future burden through retirement systems. Pension systems are discussed all over Europe nowadays not only in respect of their financial burden on the working people and national budgets but also in respect of justice among generations. The pensions of people retiring nowadays are likely to be higher than those of future retirees or at least they can spend more years in retirement as the next generation as retirement ages are raised in many European countries. The indicator "Pensions" is the sum of the following social benefits: invalidity pension, interim pension because of extenuated ability to work, old age benefits, early retirement pension, early pension, surviving dependents pension and unemployment benefit.

Table 7-6: Pension expenditures as % of GDP

		Overall		Е	arly pensio	n	Invalidity Pension			
	2005	2010	2013	2005	2010	2013	2005	2010	2013	
EU-28	n.a.	12.3	n.a.	n.a.	0.7	n.a.	n.a.	0.9	n.a.	
Anglo-Saxon	9.8	10.9	11.0	0.0	0.0	0.0	1.0	1.3	1.0	
Continental	12.7	13.1	13.3	0.5	0.3	0.3	0.7	0.8	0.8	
Eastern	9.3§	10.2	8.9§§	1.0§	1.0	0.4§§	1.1§	1.0	0.8§	
Nordic	11.1	11.9	12.7	0.9	0.8	0.8	2.1	1.3	1.1	
Southern	11.8	13.4	14.9 §§§	1.4	1.6	1.3888	0.8	0.8	0.988	

<sup>§</sup> Without data of Croatia. §§ Without data of Poland. §§§ Without data of Greece. n.a. not available.

Source: Eurostat, 2016.

The latest numbers for the EU-28 regions are from 2013. We can see that Southern Europe spends the highest share of GDP on pension obligations (14.9%) followed by Continental Europe (13.3%). Eastern Europe can report the lowest spending on the pension system with 8.9% of GDP, while the Anglo-Saxon (11.0%) region and the Nordic countries (12.7%) are in between. The countries with the most expensive pension system in 2013 were France (15.0%), Portugal (15.7%) and Italy (16.5%) although there were no numbers reported for Greece in 2013, which had the highest share (17.7%) in 2012. This however is almost sure due to a GDP contraction instead of increased spending on pensions in Greece. The lowest shares in pension spending in 2013 is reported from Ireland (6.8%), Lithuania (7.2%) and Estonia (7.5%).

The GDP ratio going into pensions and retirement expenditure has increased in all European regions, except Eastern Europe between 2005 and 2013. One determining factor in all regions is the increasing older population, while in the southern parts of Europe, where the rates went up the most, also GDP contraction might have played a role.

#### 7.3 Potential Determinants

After having described the main indicators in the section above, we now look at their determinants and try to address the most important of them.

#### 7.3.1 Taxing Inheritance

The question of an inheritance tax is an ambivalent issue when arguing about intergenerational fairness. From the perspective of wealth distribution within a society, one can definitely argue in its favor. One key result of Fessler & Schürz (2015) is that heir households hold substantially higher net wealth levels than their non-heir counterparts. In order to redistribute along the cross section of a society, a tax on inheritance might be the way to go. However and since we are researching on intergenerational fairness, the issue is not that clear. From the perspective of an heir household, earning a bequest is the means by which intergenerational fairness is guaranteed. One can see the heritage as a compensation from the older to the younger generation for bearing harsher living conditions than them, indeed not socially balanced in the cross section but individually fair among generations.

Concerning inheritance and family businesses we have to opt for smart policies to provide a sound and sustainable development of our societies. We can not be interested in massive accumulation of wealth in the hands of few, but have to bear in mind that family businesses support large parts of our economy and are important sources of innovation through their unique incentive to strive for the better in the interest of their own children. Shortly put we have to support innovative families but redistribute where oversized wealth reduces commitment to innovation and endangers equal opportunity in the long run.

#### 7.3.2 Debt and intergenerational fairness

There are two ways in which public debt enters the question about intergenerational fairness. The first and obvious reason is that every debt has to be repaid at some point and will with great probability stress future generations. Secondly there is the broadly researched question about the impact of public debt on future growth. Both issues determine the well-being of our future generation and thus have to be considered.

Much work has been done on the relationship of public debt and economic growth, e.g. by Checherita and Rother (2010). They survey 12 European countries from 1970 onwards and find that already at debt ratios of 70% to 80% of GDP there is a negative growth effect. One of the channels through which the negative effect is generated is private savings. This is of particular interest for intergenerational fairness since higher debt ratios lead to higher private savings generating higher shares of inherited wealth in the future.

Kumar and Woo (2010) are addressing the same question but do not restrict their research to European countries. However, their findings are quite similar and do proclaim an inverse relationship between public debt and subsequent growth.

Checherita and Rother (2010) argue in favor of fiscal consolidation and debt reduction to promote long-term (and even short-term) growth. However, they also admit that their findings rest on research over a long time period (from 1970 onwards) of economic stability and prospect. Thus, their results have to be interpreted with sight on that context. Recent developments may call for emergency policies on which the value of their long-term findings may be limited.

The literature seems to agree on the fact that fiscal consolidation and debt reduction are inevitable to sustain a sound development of our economy. However the aftermath of the crisis and the rigid austerity program imposed on several highly indebted European countries have raised doubt about the short term and even long term meaningfulness of the implemented policies. As stated by Checherita and Rother (2010), even the most solid statistical results have to be interpreted in the context from which they were drawn from; and extraordinary situations might require extraordinary solution concepts.

#### 7.3.3 Investing in our children to generate future growth

Altinok (2007) tries to catch the effect of schooling on economic growth by analyzing a cross section panel dataset between 1960 and 2000 covering 120 countries. The result is a significant positive effect of education on subsequent growth. However, there are highly diverging ideas on how to approach investment into education and which policies to rely on. It is relatively clear that better education promotes the well-being of our citizens in several ways and as an investment in our children directly contributes to intergenerational justice. At issues is the question of how to approach this matter.

One side argues in maximum freedom of parental choice concerning the education of their children. Sahlgren (2015) argues in that direction promoting cost effective and marked based reforms of educational systems. Governments should encourage private provision education and promote competition. This he proclaims guarantees better education with the least burden on the budget, enhancing long-term growth and ultimately intergenerational fairness.

The other side goes with the opposite idea. Less freedom of choice for parents and a strong and long comprehensive school for all children. Recent reforms in Poland have made news boosting the Pisa scores of polish children (Worldbank, 2010). A longer comprehensive school phase seem to have improved the educational system.

Spending on education is an investment into future growth and promotes fairness among generations. We find that there are two major schools of thought concerning the way how this should be realized:

- The "American way" of private provision, competition and maximum freedom of choice
- The "European way" of collective action and reforms in a prolonged comprehensive school system.

As already argued on the question of inheritance, from the perspective of intergenerational fairness it is not clear which of the two should be deemed the better one. While the "European

way" clearly supports social fairness in the cross section and promotes equal access for everyone, it also opens doors for inefficiency and overspending. The "American way" probably creates more efficient system enabling the individual to take care of intergenerational justice within its own family by affording the best private schools. However, the distribution along the cross remains neglected.

Overall, we can say that the quality of our educational system does not only depend on the shares of GDP we dedicate to it. If smart structural reforms go along with decreasing shares of GDP spent, we might still be on a good track. The literature however opts in for strong structural reforms which will have to be realized in the soon future to keep up the quality of our educational system.

#### 7.3.4 Research and Development remains unattended after crisis

Economists from all directions agree that investment into research and future technology enhances our potential to sustainable growth. However, in times of economic crisis and uncertainty short-time considerations often slow down long-term investment. The OECD report on Policy Responses to the Economic Crisis (OECD 2009) mirrors this trend. In the aftermath of the crisis, downturns in investment have been observed in several areas of innovation, e.g. development into a greener economy or the evolution of human capital. However, they argue that times of economic unrest can also provide the opportunity to implement innovation policies to accelerate structural changes as the sight on past downturn shows.

Concerning privately created innovation, this report suggests easing the entry conditions of new firms into the market by reducing administrative and incidental wage costs. Secondly, governments should endeavor to ease the liquidity constraint of small firms by recapitalizing banks and developing micro finance for small and medium sized businesses.

In 2014, the European Commission launched a paper for the member states where similar conclusions are drawn (EC, 2014). The emphasis is on raising the quality of public spending into research and development. However, they find that, when measuring efficiency by the ability to transform investment into patent applications, countries with higher investment and a broader knowledge base are also the more efficient ones. Suggesting that simply spending more budget on basic research will enhance its efficiency.

Table 7-7: Patent applications to the European Patent Office

	2005	2010	2013
EU-28	115.5	112.1	113.3
Anglo-Saxon	91.8	83.2	83.8
Continental	216.3	208.8	208.2
Eastern	5.9	10.0	13.3
Nordic	252.7	269.3	285.6
Southern	52.8	48.0	46.0

Per million inhabitants. Source: Eurostat, 2016.

In 2013 (latest data) there were 113.3 patents (per million inhabitants) applied in EU-28. Leading regions are Nordic (285.6) and Continental (208.2) EU-28 member states. A relatively huge rise in patent applicants is observed in Eastern European countries, from 5.9 in 2005 to 13.3 in 2013.

Going with the EU-Commission report (EC, 2014) the diagnosis seems to be clear: No harm can be done with spending more money on research and development. According to their findings, there is no efficiency loss generated by spending more budget. On the contrary, efficiency is even enhanced. Along with the clear result that intensified research promotes future growth, we can draw a clear conclusion from the perspective of intergenerational fairness: We should spend more money on our universities.

#### 7.3.5 Green growth as key to sustainable development

The rising need for energy in our economy has to be satisfied to ensure the well-being of our society. Yet natural resources are scarce but indispensable for the provision of our energy system. In the future continuing deterioration of natural resources could stress the ability to meet the needs of a growing population and undermine economic activity.

The OECD report on green growth studies (OECD 2011) addresses this issue. The report highlights the key areas through which the preservation of our environment affects our economy and ultimately our long-term well-being.

Starting from the basic fact that resource scarcity executes economic damage over the long run, they also go over issues of green energy related innovation, synergies between environmental and productivity growth and the possibility of unlocking new markets and job creation. First, green growth is a national issue since sustainable energy provision is strongly dependent on the local environment. Thus concerning energy provision, it is hard to give Europe-wide effective policy recommendations. However, there are several fiscal policy issues that can be addressed (OECD, 2011):

- Rationalizing and phasing-out inefficient fossil fuel subsidies.
- Setting a price signal to value externalities and provide robust signals for longer-term structural changes.
- Establishing sound market and regulatory frameworks that remove barriers to green investments and facilitate the move away from existing systems.

- Radically improving energy efficiency.
- Fostering innovation by creating the enabling environment and regulatory frameworks to foster breakthroughs in green economic improvement.

Preserving our environment is without doubt inevitable when considering fairness across generations. In Europe, we need to take advantages of local possibilities to provide green energy and strengthen national initiatives that promote the development of this sector. On the EU level fiscal policy reforms should be contemplated and with the right amount of caution set to be implemented in all Member States. These include the above-mentioned policy recommendations (OECD. 2011).

Finally, we look at the environmental taxes in the EU-28 member states. In 2013, they reached 2.4% of GDP within EU-28, ranging from 2.2% in Continental Europe to 3.0% in Nordic states.

Table 7-8: Environmental tax revenues

		As % of GDP			As % of total revenues from taxes and social contributions				
	2005	2010	2013§	2005	2010	2013§			
EU-28	2.5	2.4	2.4	6.4	6.2	6.1			
Anglo-Saxon	2.4	2.5	2.5	6.7	7.2	7.2			
Continental	2.4	2.2	2.2	5.9	5.4	5.2			
Eastern	2.6	2.5	2.4	7.9	8.0	7.4			
Nordic	3.4	3.0	3.0	7.3	6.8	6.6			
Southern	2.5§§	2.3	2.7	6.7§§	6.2	6.8			

<sup>§ 2014</sup> not yet available. §§ Without data of Greece.

Source: Eurostat, 2016.

In addition, we analyze which share of total revenues from taxes and social contribution are due to environmental taxes. Again, Continental Europe has the lowest share (5.2%), while highest shares are reported from Anglo-Saxon (7.2%) and Eastern (7.4%) countries with Slovenia (10.5%) and Bulgaria (10.1%) on its lead. Both, Nordic (6.6%) and Southern European countries (6.8%), lie above overall EU-28 (6.1%). So, in respect of total revenues of taxes and social contributions, we observe a relatively low share of environmental taxes in Continental Europe, which has lead to discussions for years. To stir growth, many economists argue to reduce taxes on labor and increase environmental taxes instead. In respect of the findings above there seems scope to change the tax-systems in Continental Europe towards higher environmental taxes.

#### 7.3.6 Pensions and income from work

When discussing intergenerational justice, pensions and pension systems are usually broached. On the one hand, pensions should prevent elderly people from poverty (for further information see "poverty prevention" in this study). On the other hand, expenditures for pensions should not lie too heavy on the people working or the next generation. Let us have a look on the income from pensions and compare them with the income from work. In EU-28, the aggregate replacement ratio as the ratio of income from pensions of persons aged

between 65 and 74 years and income from work of persons aged between 50 and 59 years was 56.0% in 2014. The ratio was highest in Southern Europe where the pensions replaced the income from work by 62.0% and lowest in Anglo-Saxon countries (49.2%). The ratio has increased in all regions since 2005, but decreased in some few single countries like Latvia, Ireland and Austria.

Table 7-9: Replacement ratio and relative median income

	Aggreg	ate replacemer	nt ratio	Relative median income ratio				
	2005	2005 2010 2014		2005	2010	2014		
EU-28	n.a.	52.0	56.0	n.a.	88.0	94.0		
Anglo-Saxon	42.3	47.9	49.2	73.5	81.3	86.3		
Continental	50.4	54.7	55.0	91.0	91.3	93.7		
Eastern	56.2	56.3	58.6	98.8	90.3	95.5		
Nordic	49.4	53.0	53.6	76.1	76.5	80.6		
Southern	56.8	49.8	62.0	80.8	88.9	100.0		

n.a. not available. Source: Eurostat, 2016.

The relative median income ratio of persons aged 65 years and over compared to persons aged less than 65 years was 94.0% in 2014, ranging from 86.3% in Anglo-Saxon countries to 100% in Southern Europe. There are some countries with a relative median income ratio of 100% and over (Greece, Spain, France, Luxembourg, Hungary and Romania). That indicates either relatively high pensions or relatively poor earnings from work.

#### **Growing problems with our pension systems**

Stewart and Yermo (2008) identify some of the main governance weaknesses in pension fund systems around OECD countries. The report focuses on the quality of the governing board fund and its importance for the prosperity of the pension fund. Their emphasis is on management issues instead of structural since they do not go into textural problems like the aging of the population. Holzmann (2003) detects three reasons why the European pension systems need reforms:

- higher expenditure levels (in relation to GDP) than in other highly industrialized countries with similar income level
- economic changes are rendering current retirement income inadequately at the social and economic level
- Ongoing globalization more and more requires flexibility in markets hindering the functioning of a rigid pension system

Holzmann (2003) makes the case for a better-integrated pension system within the European Union. Under the pressure of an aging population, the flexibility of labor markets within Europe becomes more important. Along with that goes the EU wide integration and adaption of the respective pension systems. Holzmann argues in favor of a cross-country led government initiative in assimilating the European pension systems in order to provide greater efficiency.

Kashiwase et al. (2012) provide policy recommendations for the Japanese public pension system that can possibly be extended to the European problem due to similar demographic development. They make the case for increasing the pension eligibility age in line with high and rising life expectancy in order to promote long-run economic growth and realize a fair share of the burden between the younger and the older generation. Further suggestions include the better targeting of public pension spending by holding back the payments for wealthy retirees, which would by the way also improve cross section fairness within today's society.

All together a structural reform of the European pension systems is inevitable first and foremost to ensure the sustainable working of our welfare states. This at itself is a key issue in intergenerational justice since we have to be interested in the fact that the next generation will be able to enjoy the same social benefits as us.

# 8 References

- Acemoglu, D. and J. A. Robinson (2013), Why Nations Fail. The Origins of Power, Prosperity and Poverty, London: Profile Books.
- Aiginger, K. and Leoni Th. (n.n.), Typologies of Social Models in Europe.
- Altinok, N. (2007), Human Capital Quality and Economic Growth, 07001. Second version September 2007.
- Andersen, T., B. Holmström, S. Honkapohja, S. Korkman and J. Vartiainen (2007), The Nordic Model Embracing Globalization and Sharing Risks, Helsinki: ETLA.
- Andréasson, H., Elerty, N. and Karlson, N. (2013), Does Social Cohesion Really Promote Reforms? Working paper no 33. WWWforEurope.
- Arrondel, L., Roger, M., and Savignac, F. (2014), Wealth and Income in the Euro Area. Heterogeneity in Households' Behaviours? ECB Working Paper No. 1709.
- Barrett, A., et al. (2013). Immigrant Welfare Receipt Across Europe, International Journal of Manpower 34(1), 8-23.
- Barro, Robert J. (1974), Are Government Bonds Net Wealth? Journal of Political Economy 82, 1095-1117.
- Blundell, R., Dearden, L., Meghir, C., Sianesi, B. (1999), Human Capital Investment: The Returns from Education and Training to the Individual, the Firm and the Economy, Fiscal Studies 20(1), pp. 1-23.
- Carm, E., Mageli, E., Nyman Berryman L., Smith, R. (2003), Education and its Impact on Poverty: An Initial Exploration of the Evidence, Oslo University College, unpublished manuscript.
- Chan, J., To, H. P. and Chan, E. (2006), Reconsidering Social Cohesion: Developing a Definition and Analytical Framework for Empirical Research, Social Indicators Research 75(2), 273-302.
- Charities Aid Foundation (2014), A Global View of Giving Trends, CAF World Giving Index 2014.
- Checherita, C. and Rother, P. (2010), The Impact of High and Growing Government Debt on Economic Growth. An Empirical Investigation for the Euro Area, ECB Working Paper No. 1237.
- Chetty, Raj (2008), Moral Hazard vs. Liquidity and Optimal Unemployment Insurance Journal of Political Economy 116, 173-234.
- Chetty, Raj and Amy Finkelstein (2013), Social Insurance: Connecting Theory to Data Handbook of Public Economics Volume 5, 111-193.
- Chetty, Raj, Nathaniel Hendren, Patrick Kline and Emmanuel Saez (2014), Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States, Quarterly Journal of Economics 129, 1553-1623.
- Davies J., and Shorrocks, A. (2000), The Distribution of Wealth, Handbook of Income Distribution Vol. 1, Chapter 11, edited by A. B. Atkinson and F. Bourguignon, 605-675.
- Davoine, Thomas and Christian Keuschnigg (2015), Flexicurity and Job Reallocation, Discussion Paper, University of St. Gallen.

- Deaton, A. (2002), Policy Implications of the Gradient of Health and Wealth, Health Affairs March/April 2002.
- De Graaf-Zijl, M. and B. Nolan (2011), Household Joblessness and its Impact on Poverty and Deprivation in Europe, Journal of European Social Policy 21(5), 413-431.
- EC (2014), Research and Innovation as Sources of Renewed Growth, SWD (2014) 181 final.
- EC (2015), Fighting Poverty: Commission Commits € 3.8 Billion to Help the Most Vulnerable in Europe, European Commission press release, europa.eu/rapid/press-release\_IP-15-4513 en.htm. Last hit 15.02.2016.
- EC (2016), Employment, Social Affairs & Inclusion, ec.europa.eu/social/main.jsp?catId=961. Last hit 15.02.2016.
- Esping-Andersen, Gosta (1990), The Three Worlds of Welfare Capitalism, Cambridge: Polity Press.
- European Commission (2009), Solidarity in Health: Reducing Health Inequalities in the EU, Communication from the Commission to the European Parliament, the Council, the European Economic and Social committee and the Committee of the Regions.
- European Family Businesses (2016), www.europeanfamilybusinesses.eu/family-businesses /facts-figures. Last hit 16.02.2016.
- Eurostat (2009), 79 Million EU Citizens were At-Risk-of-Poverty in 2007, of whom 32 Million were also Materially Deprived, Statistics in Focus 46/2009.
- Eurostat (2016a), Statistics Explained. Living Conditions Glossary "Material Deprivation".
- Eurostat (2016b), Statistics Explained, Gender Statistics.
- Eurostat (2016c), Pupils and Students in Different Types of Education According to ISCED, Eurostat Database.
- Eurostat (2016d), Population in Different Age Groups, Eurostat Database.
- Eurydice (2015), National Student Fee and Support Systems in European Higher Education 2015/16. Eurydice Facts and Figures, European Commission/EACEA.
- Fessler, P. and Schürz, M. (2015), Private Wealth across European Countries: The Role of Income, Inheritance and the Welfare State, ECB Working Paper Series No. 1847.
- Fouarge, D. and Layte, R. (2005), Welfare Regimes and Poverty Dynamics: The Duration and Recurrence of Poverty Spells in Europe, Journal of Social Policy 34(03), 407-426.
- Holzmann, R. (2003), Toward a Reformed and Coordinated Pension System in Europe: Rationale and Potential Structure, The World Bank. Washington, DC.
- Iacovou, M. (2013). Household Composition, Poverty and Hardship across Europe, Eurostat Statistical Working Papers, 2013 Edition.
- Immervoll, Herwig, Henrik Kleven, Claus Thustrup Kreiner and Emmanuel Saez (2007), Welfare Reform in European Countries: A Microsimulation Analysis, Economic Journal 117, 1-44.
- Kashiwase, K., Nozaki, M., Tokuoka, K. (2012), Pension Reforms in Japan, IMF Working Paper 12/285.
- Kumar, M. and Woo, J. (2010), Public Debt and Growth. IMF Working Paper 10/174.

- Lelkes, O. (2007), Poverty among Migrants in Europe, Policy Brief April 2007.
- Lelkes, O. and Gasior, K. (2012), Income Poverty and Social Exclusion in the EU, Policy Brief.
- Lelkes, O. and Zólyomi, E. (2008), Poverty across Europe: The Latest Evidence Using the EU-SILC survey, European Centre Policy Brief, pp 1-15.
- OECD (2009), Policy Responses to the Economic Crisis. Investing in Innovation for Long-Term Growth.
- OECD (2011), OECD Green Growth Studies: Energy.
- OECD (2014), Education at a Glance 2014. OECD Indicators.
- OECD (2015a), Education at a Glance 2015. OECD Indicators.
- OECD (2015b), Health at a Glance 2015. OECD Indicators.
- OECD (2016a), Data. Social Protection. https://data.oecd.org/socialexp/family-benefits-public-spending.htm. Last hit 18.02.2016.
- Oreopoulos, P., Salvanes, K. (2011), Priceless: The nonpecuniary benefits of schooling, Journal of Economic Perspectives 25(1), pp. 159-84.
- Pestieau, Pierre (2005), The Welfare State in the European Union: Economic and Social Perspectives, Oxford University Press.
- Raffo, C., et al. (2007), Education and Poverty: A Critical Review of Theory, Policy and Practice, Education and Poverty Programme.
- Sahlgren, G. (2015), Incentive to Invest? How education affects economic growth.
- Schneider, F. (2016), Size and Development of the Shadow Economy of 31 European and 5 other OECD Countries from 2003 to 2016: Different Developments, Linz.
- Schraad-Tischler, D. (2015), Social Justice in the EU Index Report 2015, Social Inclusion Monitor Europe, Bertelsmann Stiftung social-inclusion-monitor.eu.
- Schulenburg, Johann Matthias and Wolfgang Greiner (2000), Gesundheitsökonomik, Tübingen: Mohr Siebeck.
- SIM Europe (2016), Our mission. SIM Europe: safeguarding social inclusion in the EU, www.social-inclusion-monitor.eu/. Last hit 15.02.2016.
- Sloan, Frank A. and Chee-Ruey Hsieh (2012), Health Economics, Cambridge: MIT Press.
- Spadaro, Amedeo, Luca Piccoli and Lucia Mangiavacchi (2015), Optimal Taxation, Social Preferences and the Four Worlds of Welfare Capitalism in Europe, *Economica* 82, 448-485.
- Spannagel, D. (2013), In-work Poverty in Europe Extent, Structure and Causal Mechanisms, COPE project (Combating Poverty in Europe).
- Stewart, F. and Yermo, J. (2008), Pension Fund Governance: Challenges and Solutions, OECD Working Papers on Insurance and Private Pensions. No. 18.
- Stiftung Marktwirtschaft (2016), EU-Nachhaltigkeitsranking Update 2015, www.stiftung-marktwirtschaft.de/wirtschaft/themen/generationenbilanz.html. Last hit 16.02.2016.
- Transparency International (2016), Corruption Perceptions Index 2015, www.transparency.org/cpi2015#results-table. Last it 16.02.2016.

Worldbank (2010), Successful Education Reform: Lessons from Poland, Europe and Central Asia knowledge brief, Volume no. 34. Washington, DC.

# 9 Appendix

Table 10-1: At-risk-of-poverty rate by age and gender

Table 10-1:	At-risk-oi-poverty rate by age and gender												
		1	Less than	18 years	:			(	65 years and over				
		Males			Females			– 24 yea	rs	25	25 – 54 years		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	20.7	20.9	n.a.	21.1	21.3	n.a.	13.0	11.2	n.a.	18.3	15.8	
Anglo-Saxon	24.1	20.6	19.9	21.5	19.9	19.5	22.3	17.1	14.3	27.6	23.4	20.0	
Ireland	23.3	17.0	16.9	22.6	21.0	17.3	28.8	9.8	8.9	36.0	10.0	11.6	
Malta	18.3	22.5	26.7	16.9	21.6	21.4	23.2	19.5	16.7	23.3	17.1	17.1	
United Kingdom	24.2	20.9	20.1	21.5	19.8	19.6	21.9	17.6	14.7	27.1	24.4	20.6	
Continental	13.5	17.5	16.0	14.0	17.5	16.7	12.0	10.4	10.7	16.0	13.5	13.9	
Austria	15.5	18.3	18.3	15.1	19.6	18.1	9.6	12.5	11.4	16.9	20.0	16.4	
Belgium	18.5	17.5	19.5	17.6	19.0	18.2	20.4	18.7	15.5	22.1	20.0	16.5	
France	13.9	17.7	17.5	15.0	18.5	17.9	14.9	8.0	7.2	17.5	10.4	9.6	
Germany	12.1	17.9	14.5	12.3	17.2	15.9	10.3	12.1	14.0	16.0	15.9	18.4	
Luxembourg	19.7	22.6	25.9	20.7	20.1	24.9	9.4	5.5	5.7	6.6	6.3	6.8	
Netherlands	15.0	13.9	13.0	15.6	13.5	14.4	4.9	5.5	4.9	5.7	6.3	6.8	
Eastern	24.5	22.8	25.1	24.8	23.2	25.7	4.8	10.0	9.3	10.5	17.7	15.5	
Bulgaria	n.a.	26.4	29.2	n.a.	27.0	34.3	n.a.	24.9	18.0	n.a.	37.2	25.8	
Croatia	n.a.	19.5	19.9	n.a.	19.8	22.5	n.a.	25.1	20.8	n.a.	34.0	24.6	
Czech Republic	17.4	14.3	15.5	17.8	14.3	13.7	2.1	2.1	4.3	7.5	10.3	8.9	
Estonia	22.3	17.4	20.1	20.2	17.3	19.4	9.6	8.0	18.5	25.5	18.6	39.7	
Hungary	20.5	20.9	23.3	19.3	19.7	25.9	4.2	2.8	3.3	7.9	4.8	4.7	
Latvia	22.8	28.2	25.9	21.1	24.3	22.7	11.4	11.9	15.9	25.7	19.7	33.2	
Lithuania	26.0	23.9	23.0	28.5	25.8	24.0	6.4	7.6	11.9	22.5	10.7	24.3	
Poland	28.8	22.5	22.5	29.8	22.4	22.1	4.9	9.9	8.4	8.7	16.8	13.8	
Romania	n.a.	30.2	38.8	n.a.	32.4	40.0	n.a.	10.9	10.5	n.a.	20.7	18.9	
Slovakia	19.6	17.7	18.7	18.2	20.2	19.8	2.7	3.9	4.1	9.8	10.1	7.5	
Slovenia	11.4	13.3	15.3	12.8	11.9	14.3	11.2	9.5	10.8	26.1	27.1	21.6	
Nordic	10.0	11.7	11.2	10.4	12.5	13.6	10.3	11.4	10.2	17.4	21.0	18.1	
Denmark	10.6	10.9	9.0	10.2	10.9	9.4	16.5	16.8	9.1	18.4	18.5	10.4	
Finland	10.1	10.6	9.9	9.9	12.3	11.8	11.0	12.2	11.0	23.9	22.7	19.7	
Sweden	9.6	12.7	13.2	10.9	13.6	17.0	6.2	7.8	10.3	13.1	21.6	21.7	
Southern	24.3	25.6	27.0	24.9	26.8	27.0	22.7	16.3	11.0	28.2	21.8	15.2	
Cyprus	13.5	13.7	11.6	12.1	11.4	14.0	46.9	36.8	17.6	53.2	42.4	26.5	
Greece	19.6	21.6	26.8	21.3	24.4	24.1	25.2	18.8	13.3	30.0	23.3	16.1	
Italy	23.9	24.2	24.5	25.5	26.2	25.7	19.0	12.9	11.0	25.4	19.5	16.6	
Portugal	23.1	24.9	25.2	24.4	19.8	26.1	27.5	17.5	12.6	27.8	23.5	16.9	
Spain	26.6	28.7	31.1	25.3	29.9	29.9	25.5	19.4	10.0	31.3	23.6	12.5	
n a not available		-	-									_	

Table 10-2: At-risk-of-poverty rate by place of birth

Table 10-2:	At-risk-oi-poverty rate by place of birth												
	Parent's place of birth: reporting country				Parent's place of birth: Foreign-born			People born in reporting country			People born in a non EU-28 country		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	18.8	18.3	n.a.	31.5	32.7	n.a.	14.6	15.2	n.a.	28.8	30.5	
Anglo-Saxon	20.9	19.1	16.7	31.3	23.4	27.5	17.1	15.3	15.1	n.a.	26.3	24.6	
Ireland	21.2	19.6	15.6	30.1	17.0	19.3	18.1	13.6	13.7	n.a.	20.4	28.3	
Malta	18.4	21.7	23.5	8.2	25.2	27.1	13.4	13.7	13.8	n.a.	15.8	21.9	
United Kingdom	20.9	19.1	16.7	31.5	23.9	28.1	17.1	15.4	15.2	n.a.	26.8	24.3	
Continental	11.6	14.8	13.2	23.2	29.4	27.8	11.2	12.4	13.3	n.a.	26.8	25.9	
Austria	12.0	11.1	9.5	25.3	33.1	34.9	10.1	10.5	9.7	n.a.	32.0	31.1	
Belgium	11.3	11.7	11.3	38.7	33.7	37.2	12.0	10.8	11.1	n.a.	39.2	44.7	
France	11.3	15.1	13.9	25.2	30.6	34.5	11.0	10.7	10.7	n.a.	26.6	26.6	
Germany	11.5	15.9	13.9	18.3	29.2	21.1	11.9	15.0	16.9	n.a.	26.9	22.3	
Luxembourg	7.5	14.2	14.8	29.2	25.2	29.6	6.5	7.6	8.6	n.a.	33.5	35.0	
Netherlands	13.0	11.6	10.0	29.0	20.9	24.3	8.5	8.3	9.6	n.a.	15.9	24.5	
Eastern	24.8	23.1	24.7	18.3	25.1	25.0	15.5	15.7	16.2	n.a.	15.5	12.1	
Bulgaria	25.8	26.0	30.6	5.6	22.1	n.a.	n.a.	19.5	19.5	n.a.	23.3	12.7	
Croatia	n.a.	18.0	18.0	n.a.	24.5	33.0	n.a.	20.1	17.9	n.a.	26.8	29.6	
Czech Republic	17.0	13.8	13.5	30.9	24.9	29.2	8.3	7.7	8.4	n.a.	6.4	10.8	
Estonia	20.0	16.9	18.1	23.5	19.0	31.0	16.8	15.1	20.5	n.a.	17.4	32.4	
Hungary	20.2	20.5	24.6	17.8	8.2	17.8	12.1	10.5	12.6	n.a.	7.7	1.1	
Latvia	20.7	26.7	24.8	22.7	22.3	15.2	18.8	19.8	19.9	n.a.	17.9	23.8	
Lithuania	27.3	24.5	22.3	25.8	15.4	36.2	18.8	19.8	18.1	n.a.	15.2	19.6	
Poland	29.7	23.1	21.8	16.7	31.6	24.4	18.5	16.7	15.7	n.a.	17.7	10.5	
Romania	n.a.	31.5	39.0	n.a.	n.a.	n.a.	n.a.	18.8	22.1	n.a.	n.a.	n.a.	
Slovakia	18.9	18.5	19.4	17.6	25.8	20.7	11.9	10.6	11.2	n.a.	10.6	n.a.	
Slovenia	10.7	11.3	11.3	18.3	19.8	33.4	11.9	12.2	12.8	n.a.	18.4	29.3	
Nordic	7.9	8.2	8.3	21.2	29.5	26.1	10.1	12.1	12.6	n.a.	29.9	28.9	
Denmark	8.2	7.2	7.5	23.5	29.2	16.4	11.8	13.0	12.4	n.a.	28.6	20.8	
Finland	8.8	8.9	9.5	21.3	34.0	21.8	11.8	12.9	12.8	n.a.	38.3	27.9	
Sweden	7.2	8.4	8.1	19.7	27.1	34.2	8.0	11.2	12.5	n.a.	25.8	34.1	
Southern	23.0	22.4	22.6	30.5	41.0	42.6	18.2	16.5	17.2	n.a.	33.4	39.0	
Cyprus	11.4	10.2	8.2	18.7	21.8	22.4	16.6	14.3	12.6	n.a.	34.8	29.8	
Greece	18.0	16.7	19.6	32.3	46.4	48.9	19.0	17.3	19.1	n.a.	42.7	50.4	
Italy	24.2	23.2	22.5	27.0	38.8	35.1	17.8	16.6	16.6	n.a.	31.2	34.0	
Portugal	23.3	21.7	25.4	14.1	24.2	25.6	18.3	17.0	17.9	n.a.	17.2	21.2	
Spain	22.9	23.0	23.1	38.8	46.7	55.1	18.6	16.2	17.5	n.a.	37.7	47.1	
n a not available													

Table 10-3: At-risk-of-poverty rate by type of household

	Si	ingle Persor	1		le parent w ndent child		Two adults with dependent children			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	25.4	25.1	n.a.	37.1	32.5	n.a.	15.0	14.9	
Anglo-Saxon	27.3	26.7	26.9	38.3	36.5	29.1	13.8	12.4	13.2	
Ireland	48.2	22.9	25.2	45.2	34.4	34.9	13.5	14.2	11.5	
Malta	23.5	22.5	20.4	35.0	54.6	46.3	13.5	16.7	19.3	
United Kingdom	25.9	27.0	27.1	37.9	36.5	28.6	13.8	12.2	13.3	
Continental	20.6	23.2	25.0	26.3	37.8	31.8	8.7	9.7	9.9	
Austria	19.5	24.7	23.6	26.4	30.4	31.6	12.3	9.7	9.8	
Belgium	22.0	18.8	22.4	33.2	35.3	36.4	9.7	10.6	10.2	
France	19.6	16.5	17.0	25.6	34.8	35.5	9.5	10.8	8.8	
Germany	22.7	30.0	32.9	25.8	43.0	29.4	7.2	8.8	10.9	
Luxembourg	15.7	16.4	15.3	33.1	46.4	44.6	18.0	14.5	16.5	
Netherlands	13.7	17.6	20.6	26.8	29.1	25.6	10.2	8.7	8.9	
Eastern	19.3	26.1	22.6	37.4	34.1	31.5	18.8	18.4	17.8	
Bulgaria	n.a.	50.9	31.0	n.a.	42.3	42.9	n.a.	16.3	24.1	
Croatia	n.a.	42.2	31.2	n.a.	35.9	29.6	n.a.	15.8	14.7	
Czech Republic	16.4	18.0	15.4	41.0	37.7	35.9	11.0	8.7	8.3	
Estonia	36.4	28.4	49.4	39.8	36.4	37.2	12.3	10.6	13.2	
Hungary	18.6	13.2	12.7	27.1	28.1	29.7	15.4	14.6	14.2	
Latvia	40.6	32.5	42.2	32.1	39.0	41.1	17.7	18.4	17.2	
Lithuania	31.6	26.7	34.9	48.4	44.5	46.0	18.0	21.8	13.5	
Poland	16.4	24.5	20.3	40.1	34.2	27.6	22.9	19.8	15.4	
Romania	n.a.	26.7	26.0	n.a.	31.9	30.7	n.a.	26.7	31.1	
Slovakia	16.3	19.1	15.7	31.8	25.0	30.6	16.7	11.0	11.4	
Slovenia	44.0	38.5	33.0	22.0	31.4	27.4	10.1	9.0	11.3	
Nordic	23.8	28.9	31.4	20.5	26.6	24.7	4.6	6.5	5.4	
Denmark	25.7	27.1	27.2	20.9	20.0	13.0	4.7	5.1	4.2	
Finland	30.0	31.5	32.0	20.3	22.0	20.7	5.0	7.4	4.9	
Sweden	19.1	28.5	33.6	20.4	33.1	33.7	4.4	6.9	6.3	
Southern	29.9	27.1	22.2	36.4	42.0	38.3	22.1	22.3	22.9	
Cyprus	47.8	34.0	26.5	35.2	22.2	27.9	8.8	10.5	7.5	
Greece	27.9	27.2	22.6	43.5	33.4	27.8	18.2	20.3	22.0	
Italy	27.6	25.0	23.0	33.9	39.1	37.5	22.4	21.7	22.2	
Portugal	37.1	30.1	23.1	31.5	37.0	38.4	23.9	17.1	18.0	
Spain	31.4	28.9	20.7	39.2	49.2	42.0	22.5	24.8	25.3	

Table 10-4: At-risk-of-poverty rate by type of urbanization

1able 10-4.	TIC TISK O	t-115K-01-poverty rate by type of urbanization												
		Cities		Tow	ns and sub	urbs	Rural areas							
	2005	2010	2014	2005	2010	2014	2005	2010	2014					
EU-28	n.	a. 15.2	16.4	n.a.	14.7	15.8	n.a.	20.6	20.2					
Anglo-Saxon	18	.6 18.0	18.2	15.4	14.6	14.5	16.9	13.8	15.0					
Ireland	14	.0 12.0	12.5	20.8	14.6	15.6	24.1	18.4	18.0					
Malta	14	.2 15.5	15.5	15.0	15.8	18.0	n.a.	n.a.	44.3					
United Kingdom	18	.9 18.5	18.6	15.0	14.6	14.4	16.4	13.5	14.6					
Continental	13	.1 15.5	17.1	11.2	12.2	14.5	14.0	14.9	13.3					
Austria	12	.6 20.4	20.9	10.9	10.5	12.1	13.7	12.0	10.5					
Belgium	17	.5 17.2	22.1	11.2	11.5	12.3	18.2	12.6	14.2					
France	13	.5 15.1	14.2	11.7	11.3	15.2	14.0	12.7	11.6					
Germany	12	.7 16.2	19.3	11.2	13.6	15.2	12.9	18.8	15.3					
Luxembourg	19	.4 19.1	13.9	7.3	10.1	20.7	10.9	12.4	14.0					
Netherlands	11	.0 10.4	12.3	9.6	10.2	10.9	17.0	7.2	11.5					
Eastern	11	.6 8.9	9.8	15.5	14.9	15.6	22.6	23.2	26.0					
Bulgaria	10	.8 10.1	12.3	13.1	20.6	20.5	25.2	30.1	33.7					
Croatia	n	a. 11.8	12.7	n.a.	15.0	16.9	n.a.	29.0	24.4					
Czech Republic	10	.1 8.2	8.4	10.1	8.3	9.9	10.7	10.2	10.7					
Estonia	14	.1 13.1	20.2	13.2	14.2	22.5	22.1	18.5	23.3					
Hungary	7	.6 4.7	6.7	12.3	11.0	15.0	18.2	17.7	20.2					
Latvia	11	.6 16.4	14.9	6.1	10.3	20.2	26.6	25.5	27.0					
Lithuania	9	.3 14.3	11.9	n.a.	n.a.	21.7	28.4	25.0	25.2					
Poland	13	.4 11.0	9.6	19.6	17.0	14.7	27.2	23.5	24.1					
Romania	n	a. 4.7	9.2	n.a.	16.2	18.0	n.a.	30.9	42.2					
Slovakia	11	.1 8.0	8.2	12.7	10.7	11.4	15.1	15.6	16.2					
Slovenia	10	.8 10.1	14.2	10.8	11.8	12.7	13.6	14.5	16.0					
Nordic	11	.2 14.0	14.8	9.5	11.5	12.4	11.1	13.0	13.9					
Denmark	14	.5 15.9	17.0	8.0	11.6	9.6	12.5	12.4	9.5					
Finland	10	.2 11.5	12.1	11.6	12.8	13.0	12.4	13.9	13.4					
Sweden	9	.7 14.2	15.1	9.1	10.7	13.8	9.5	12.9	16.7					
Southern	16	.2 17.0	18.7	20.3	19.9	20.0	25.7	23.8	26.0					
Cyprus	14	.8 15.0	12.6	13.3	13.3	16.7	19.5	17.6	16.1					
Greece	12	.8 16.0	19.1	24.5	17.0	19.0	24.3	24.8	27.0					
Italy	17	.5 17.9	18.5	18.7	18.4	18.4	24.7	21.4	24.8					
Portugal	14	.9 13.4	18.1	21.6	19.6	17.4	24.5	23.9	23.8					
Spain	15	.7 16.9	19.0	21.1	22.6	22.9	27.7	26.6	27.9					
n a not available														

Table 10-5: In-work at-risk-of-poverty rate by age

	From 18 to 24 years From 25 to 54 years From 55 to 64 years											
	From	18 to 24 ye	ears	From	25 to 54 y	ears	Fron	From 55 to 64 years				
	2005	2010	2014	2005	2010	2014	2005	2010	2014			
EU-28	n.a.	10.9	12.7	n.a.	8.2	9.6	n.a.	7.0	8.3			
Anglo-Saxon	10.6	5.6	9.3	7.6	6.8	8.2	8.3	6.3	8.9			
Ireland	4.9	5.6	7.8	5.7	4.8	4.2	8.1	8.3	8.6			
Malta	2.1	4.9	2.7	5.1	6.3	6.6	2.0	3.9	3.2			
United Kingdom	11.1	5.6	9.5	7.7	6.9	8.5	8.4	6.2	9.0			
Continental	6.9	10.3	12.1	5.2	6.3	8.3	5.7	5.8	7.3			
Austria	6.5	8.0	8.0	6.9	7.5	7.2	6.0	6.0	6.5			
Belgium	4.9	4.5	6.9	4.0	4.5	5.0	3.1	4.2	2.6			
France	7.6	12.2	12.8	5.9	6.1	7.8	5.8	6.1	6.8			
Germany	7.2	10.6	13.7	4.5	6.9	9.8	5.7	6.0	9.1			
Luxembourg	15.2	9.1	13.1	9.8	11.4	11.3	4.9	4.5	8.1			
Netherlands	3.5	6.9	7.5	5.9	5.0	5.4	6.9	5.0	4.1			
Eastern	10.7	11.5	12.7	10.9	10.2	10.5	8.6	9.8	9.8			
Bulgaria	n.a.	7.5	9.6	n.a.	7.9	9.8	n.a.	7.0	6.9			
Croatia	n.a.	7.6	6.3	n.a.	6.2	6.0	n.a.	5.5	4.0			
Czech Republic	1.7	2.6	1.3	3.9	4.1	4.0	2.3	2.2	2.3			
Estonia	5.8	4.3	10.2	7.9	7.1	11.4	6.7	6.0	14.4			
Hungary	10.4	6.4	7.5	8.9	5.8	6.6	6.1	2.6	5.4			
Latvia	5.2	8.0	6.5	9.8	10.2	8.8	9.1	8.2	7.1			
Lithuania	6.5	11.8	6.5	10.8	13.4	9.3	8.5	9.5	5.1			
Poland	15.0	12.2	10.9	13.9	11.5	10.6	11.9	10.4	11.0			
Romania	n.a.	23.2	31.3	n.a.	16.0	18.9	n.a.	20.5	18.3			
Slovakia	6.2	4.1	4.6	9.7	5.9	6.1	3.7	4.7	4.1			
Slovenia	5.0	3.6	9.9	4.5	5.4	6.2	6.0	5.2	7.3			
Nordic	17.9	18.3	16.6	4.3	5.1	5.5	2.6	3.6	3.6			
Denmark	23.5	24.5	17.7	4.1	5.7	4.6	1.5	3.5	2.3			
Finland	9.1	8.7	6.0	3.4	3.2	3.5	3.4	3.8	3.9			
Sweden	19.7	20.1	21.9	4.9	5.9	7.2	2.8	3.5	4.2			
Southern	9.0	13.1	18.2	10.0	10.5	11.9	10.3	8.9	9.5			
Cyprus	8.5	8.5	6.4	6.4	7.8	8.2	5.4	4.5	6.1			
Greece	12.7	11.9	20.2	11.7	13.5	12.7	19.9	16.6	15.1			
Italy	9.1	12.8	16.4	9.0	9.9	11.3	6.9	6.6	8.8			
Portugal	7.8	8.2	13.3	11.2	8.7	10.2	15.7	16.5	12.8			
Spain	8.1	14.9	21.3	10.8	10.9	13.0	11.3	8.4	8.5			

Table 10-6: People at risk of poverty by educational level

	I	evels 0 – 2			evels 3 and	4	Levels 5 and 6			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	23.1	24.9	n.a.	13.4	14.9	n.a.	6.8	7.9	
Anglo-Saxon	29.1	26.6	22.5	15.6	15.9	16.0	9.1	8.2	8.5	
Ireland	29.1	18.7	17.9	13.2	13.8	15.1	5.9	7.8	7.7	
Malta	15.7	17.2	19.3	5.7	8.2	8.0	3.2	5.6	2.7	
United Kingdom	29.2	27.2	22.8	15.8	16.1	16.1	9.4	8.2	8.6	
Continental	17.8	20.4	23.4	10.2	12.3	13.7	6.9	7.4	8.5	
Austria	20.7	23.9	23.0	9.5	10.7	11.3	7.0	10.2	9.3	
Belgium	21.7	23.0	25.4	11.5	10.7	13.3	4.7	5.5	6.7	
France	18.2	16.0	19.3	10.2	11.0	11.4	6.3	6.6	6.2	
Germany	18.2	25.3	29.1	10.2	14.1	16.0	7.5	7.9	10.5	
Luxembourg	18.7	18.9	22.3	8.2	10.6	10.7	3.9	4.1	6.5	
Netherlands	10.3	10.0	11.0	9.8	9.9	12.9	7.1	7.7	8.7	
Eastern	22.4	28.2	30.7	15.3	13.4	14.6	4.6	3.7	3.8	
Bulgaria	n.a.	41.4	43.5	n.a.	11.4	12.9	n.a.	4.8	4.0	
Croatia	n.a.	38.3	34.3	n.a.	15.4	15.4	n.a.	5.7	5.9	
Czech Republic	16.8	18.2	20.2	8.0	6.9	8.3	2.1	2.5	2.5	
Estonia	27.5	24.5	34.1	17.4	17.8	23.3	9.6	6.0	14.4	
Hungary	17.1	19.9	27.3	10.8	8.7	10.0	3.0	1.8	2.0	
Latvia	30.1	31.3	35.5	17.5	19.6	20.0	5.6	6.6	7.7	
Lithuania	27.4	25.1	31.6	20.3	21.9	20.3	4.9	9.8	5.8	
Poland	24.8	28.2	28.0	18.8	16.5	16.3	5.2	4.6	4.0	
Romania	n.a.	33.2	39.2	n.a.	12.5	16.7	n.a.	1.1	3.0	
Slovakia	18.0	20.2	23.4	11.6	10.2	10.8	7.0	4.3	4.6	
Slovenia	23.4	27.0	28.2	7.9	10.2	14.0	2.0	3.3	4.9	
Nordic	14.3	20.2	20.5	10.7	12.5	14.5	6.2	7.4	8.0	
Denmark	14.8	18.2	13.3	11.2	12.1	14.1	7.7	8.6	8.9	
Finland	18.3	20.9	20.4	12.9	14.5	15.7	3.2	4.4	4.5	
Sweden	11.6	20.9	24.7	9.1	11.6	14.1	7.1	8.5	9.4	
Southern	23.6	23.1	24.8	12.3	14.3	17.4	6.3	6.2	9.1	
Cyprus	30.8	28.8	25.9	10.2	12.2	13.8	5.3	5.4	6.0	
Greece	27.0	27.0	27.2	14.2	18.5	22.6	5.6	5.8	8.7	
Italy	23.5	22.5	23.4	11.9	12.9	15.7	5.8	6.0	9.0	
Portugal	18.4	18.9	22.9	9.3	8.9	11.9	3.1	3.1	5.1	
Spain	24.1	23.8	26.5	13.2	16.4	19.7	7.9	7.4	10.2	

Levels 0 – 2: pre-primary, primary and lower secondary education; Levels 3 and 4: upper secondary and post-secondary non-tertiary education; Levels 5 and 6: first and second stage of tertiary education.

n.a. not available.

Source: Eurostat, 2016.

Table 10-7: People at risk of poverty by educational level of their parents

1able 10-7. 1	reopie at risk of poverty by educational level of their parents												
	I	Levels 0 – 2		Le	evels 3 and	4	L	Levels 5 and 6					
	2005	2010	2014	2005	2010	2014	2005	2010	2014				
EU-28	n.a.	47.7	50.5	n.a.	22.4	24.2	n.a.	7.6	8.0				
Anglo-Saxon	51.4	44.7	34.3	22.8	24.5	23.8	13.1	8.9	11.4				
Ireland	44.9	35.5	32.7	17.6	19.8	21.4	8.1	10.2	10.0				
Malta	22.9	30.2	43.0	8.7	16.0	12.4	4.5	7.0	4.2				
United Kingdom	52.0	45.5	34.4	23.2	24.9	24.0	13.5	8.8	11.6				
Continental	35.5	49.5	49.8	15.1	21.7	21.2	6.9	7.4	6.9				
Austria	35.0	44.6	46.2	14.1	17.6	18.2	11.6	13.6	11.2				
Belgium	44.8	45.5	53.8	18.2	19.6	25.3	4.6	6.3	7.1				
France	33.2	43.0	55.5	14.4	22.3	22.8	4.9	5.8	6.0				
Germany	37.8	58.7	48.4	14.7	23.3	20.7	7.9	7.9	6.7				
Luxembourg	43.6	43.0	51.6	18.0	18.8	22.5	5.1	7.6	8.8				
Netherlands	26.7	34.2	33.0	18.6	15.5	16.2	8.5	8.3	8.7				
Eastern	60.7	63.1	65.8	26.7	22.8	27.2	5.8	4.5	5.1				
Bulgaria	n.a.	67.5	76.4	n.a.	16.0	21.5	n.a.	3.8	2.7				
Croatia	n.a.	68.2	51.7	n.a.	16.2	21.9	n.a.	6.8	6.0				
Czech Republic	58.3	70.0	57.4	19.0	14.1	17.1	4.4	4.9	2.4				
Estonia	52.8	46.4	44.4	26.3	24.4	28.5	9.9	5.3	9.8				
Hungary	51.9	60.5	68.5	17.1	17.0	20.6	2.9	3.1	1.8				
Latvia	41.4	56.0	54.0	24.4	33.0	30.2	5.6	5.4	8.2				
Lithuania	66.6	39.6	60.8	34.8	29.1	35.4	4.8	16.5	6.5				
Poland	65.7	56.1	60.2	32.4	27.3	29.4	6.5	5.4	6.8				
Romania	n.a.	73.1	78.9	n.a.	24.9	35.7	n.a.	0.7	3.4				
Slovakia	63.6	85.6	88.8	20.1	19.3	19.1	10.6	6.1	8.8				
Slovenia	32.1	39.2	34.7	11.9	15.6	22.1	2.1	4.4	6.3				
Nordic	23.0	35.3	45.3	12.1	13.1	15.4	5.4	7.4	5.7				
Denmark	17.7	20.6	29.4	11.8	10.2	11.5	5.4	6.8	3.9				
Finland	23.5	35.9	17.3	15.2	13.3	18.3	4.0	7.3	5.2				
Sweden	25.8	43.6	70.4	10.4	14.8	16.1	6.2	7.9	7.1				
Southern	39.6	45.6	50.4	19.8	24.5	28.6	8.1	8.4	9.7				
Cyprus	27.1	26.8	35.0	15.5	14.9	15.3	4.9	5.3	6.6				
Greece	43.6	40.2	57.4	18.3	30.5	32.1	6.7	7.2	8.3				
Italy	41.1	45.9	46.8	18.6	20.2	23.3	7.2	7.7	9.3				
Portugal	28.7	31.0	40.2	13.5	11.0	18.0	3.2	3.9	4.7				
Spain	39.3	50.1	56.1	23.4	31.7	37.3	10.8	10.7	11.7				

Levels 0 – 2: pre-primary, primary and lower secondary education; Levels 3 and 4: upper secondary and post-secondary non-tertiary education; Levels 5 and 6: first and second stage of tertiary education.

n.a. not available.

Source: Eurostat, 2016.

Table 10-8: At-risk-of-poverty rate by activity in the previous year

	Unen	iployed per	sons	Other	inactive pe	rsons	Employed persons			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	45.4	47.2	n.a.	26.9	27.9	n.a.	8.3	9.5	
Anglo-Saxon	53.9	46.1	55.4	35.4	31.1	31.4	8.0	6.7	8.4	
Ireland	47.2	27.9	34.3	33.8	22.6	26.1	6.0	5.5	5.2	
Malta	49.3	42.8	48.8	18.9	20.8	23.1	4.3	5.9	5.7	
United Kingdom	54.4	47.4	57.0	35.6	31.8	31.8	8.2	6.8	8.6	
Continental	35.2	49.9	48.9	21.3	26.1	28.5	5.4	6.6	8.4	
Austria	46.0	39.2	44.6	22.8	25.1	26.1	6.8	7.5	7.2	
Belgium	30.7	30.4	42.9	25.6	25.8	32.0	3.9	4.5	4.8	
France	29.3	33.5	31.1	26.9	29.1	28.2	6.1	6.5	8.0	
Germany	40.6	70.3	67.4	16.9	25.0	28.7	4.8	7.2	9.9	
Luxembourg	48.7	43.3	50.0	15.0	17.8	22.8	9.8	10.6	11.1	
Netherlands	27.5	31.8	36.3	19.0	20.9	27.7	5.8	5.1	5.3	
Eastern	47.3	45.2	47.6	23.4	24.6	27.0	10.6	10.2	10.5	
Bulgaria	n.a.	48.3	50.2	n.a.	24.4	27.7	n.a.	7.7	9.2	
Croatia	n.a.	45.1	43.2	n.a.	37.2	31.0	n.a.	6.3	5.7	
Czech Republic	51.1	40.6	47.8	16.1	12.9	14.7	3.5	3.7	3.6	
Estonia	60.1	46.7	54.7	31.5	27.5	32.6	7.5	6.5	11.8	
Hungary	48.8	44.8	52.4	19.4	19.5	23.8	8.7	5.3	6.4	
Latvia	58.3	47.9	53.3	30.1	30.6	28.7	9.0	9.4	8.1	
Lithuania	62.8	56.1	62.6	28.7	30.6	24.3	10.0	12.6	8.3	
Poland	45.7	45.4	43.0	25.9	25.7	24.8	13.8	11.4	10.6	
Romania	n.a.	45.4	50.8	n.a.	29.8	41.3	n.a.	17.2	19.6	
Slovakia	39.0	41.1	48.7	19.0	16.5	16.7	8.9	5.7	5.7	
Slovenia	24.9	44.1	45.3	22.3	14.9	21.2	4.6	5.3	6.4	
Nordic	28.9	38.7	39.0	27.7	30.8	36.0	4.8	5.8	5.9	
Denmark	26.0	36.3	27.5	31.0	30.4	34.8	4.8	6.5	4.9	
Finland	35.7	45.3	46.9	26.6	29.6	28.4	3.7	3.7	3.7	
Sweden	26.7	36.3	41.3	26.4	31.7	41.1	5.5	6.5	7.8	
Southern	38.4	42.1	47.2	28.1	27.4	25.8	10.0	10.4	11.7	
Cyprus	37.1	35.8	32.6	19.3	19.1	17.9	6.5	7.3	7.8	
Greece	32.3	38.5	45.9	25.2	27.4	28.4	12.9	13.8	13.4	
Italy	44.1	45.2	48.1	28.4	27.8	26.6	8.7	9.5	11.0	
Portugal	28.4	36.4	40.5	27.9	28.0	32.4	11.9	9.7	10.7	
Spain	34.8	40.3	48.0	28.5	27.0	22.8	10.6	10.9	12.5	

Table 10-9: In-work at-risk-of-poverty rate by work intensity

Table 10-9.	111 VV	orn at	I ISK OI	pover	ty rate	. by we	TIX TITE	risity					
	Very	high inte	nsity	Hi	gh intens	ity	Med	ium inter	isity	Low intensity			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	n.a.	4.4	5.2	n.a.	8.6	10.2	n.a.	18.7	20.4	n.a.	33.5	36.5	
Anglo-Saxon	3.5	3.2	3.6	9.5	8.9	10.5	19.5	15.6	22.8	41.6	33.7	38.1	
Ireland	2.1	3.1	1.8	4.6	4.2	3.7	12.1	8.7	7.2	20.8	10.9	19.0	
Malta	0.8	1.5	0.5	0.8	4.3	3.8	10.7	14.6	20.1	20.1	23.7	29.3	
United Kingdom	3.6	3.2	3.8	9.9	9.3	11.0	20.1	16.1	23.9	43.2	35.4	39.5	
Continental	3.1	3.6	5.2	5.3	7.1	10.0	10.9	15.0	16.2	21.0	27.5	30.0	
Austria	3.7	4.9	4.3	5.4	6.8	7.9	16.9	14.2	11.5	33.4	30.6	33.4	
Belgium	1.9	2.2	2.1	2.7	4.4	5.1	11.9	13.0	14.3	19.5	22.7	27.8	
France	3.4	3.2	4.2	7.3	8.7	12.7	15.6	17.4	18.8	23.9	28.2	31.2	
Germany	2.9	4.1	7.3	4.0	6.6	9.9	6.7	14.0	15.2	18.4	29.8	29.1	
Luxembourg	6.7	6.8	6.0	11.3	11.1	14.6	16.9	23.6	25.2	24.1	32.7	33.7	
Netherlands	3.0	3.0	1.8	5.9	5.1	4.6	10.7	11.5	14.0	17.7	15.3	29.1	
Eastern	7.0	6.4	5.9	10.8	11.1	11.6	19.7	19.1	23.9	34.0	38.5	42.5	
Bulgaria	n.a.	3.0	2.7	n.a.	6.9	11.5	n.a.	16.4	26.6	n.a.	57.0	47.3	
Croatia	n.a.	1.9	1.1	n.a.	3.8	2.6	n.a.	16.0	14.2	n.a.	29.7	30.3	
Czech Republic	1.4	1.9	2.1	4.3	3.8	4.7	12.3	10.9	11.1	36.2	29.1	22.8	
Estonia	4.6	3.9	8.6	9.5	7.4	12.2	20.3	18.2	24.8	43.9	31.6	46.9	
Hungary	5.9	1.6	2.6	10.3	6.8	6.7	19.2	12.8	15.1	28.3	28.6	43.3	
Latvia	5.8	5.1	4.6	9.8	10.7	7.8	29.1	20.5	22.8	49.7	40.8	37.5	
Lithuania	5.8	7.6	5.0	13.9	15.1	10.5	24.3	36.1	27.7	55.2	50.9	43.4	
Poland	9.1	7.1	5.9	13.5	13.7	9.1	21.4	20.2	25.5	33.3	38.7	42.3	
Romania	n.a.	13.1	12.7	n.a.	16.8	27.0	n.a.	24.4	34.4	n.a.	45.2	56.2	
Slovakia	7.9	3.7	3.0	6.5	5.2	5.6	16.5	15.0	18.5	28.4	27.6	37.0	
Slovenia	2.0	3.2	3.0	4.3	5.7	6.8	16.1	18.4	21.1	18.6	27.5	33.4	
Nordic	3.7	4.1	4.1	7.4	6.7	9.8	8.4	11.3	14.1	14.6	27.7	27.9	
Denmark	4.2	5.2	3.3	6.9	9.5	7.7	6.3	6.9	9.7	9.3	32.5	30.3	
Finland	1.9	2.0	2.5	5.2	4.2	3.4	8.6	9.4	9.5	13.7	22.8	20.2	
Sweden	4.4	4.6	5.5	8.9	6.5	14.6	9.5	15.0	19.2	18.3	27.7	30.8	
Southern	5.1	4.4	5.4	8.0	9.9	10.7	22.0	23.9	21.8	30.8	36.7	38.7	
Cyprus	3.2	5.5	5.6	6.3	5.7	5.2	15.8	14.2	13.4	25.9	27.3	19.8	
Greece	8.3	7.5	4.1	12.1	13.4	11.3	19.8	27.0	17.9	29.3	43.2	41.9	
Italy	3.6	3.6	5.3	5.7	8.0	9.3	21.3	22.8	22.5	29.4	36.5	38.9	
Portugal	6.6	3.8	4.8	11.2	11.4	10.9	31.1	26.1	25.1	35.1	35.3	46.4	
Spain	5.9	4.8	5.9	9.4	11.2	12.4	21.4	24.1	21.2	32.0	35.8	36.2	
n a not available													

Table 10-10: At-risk-of-poverty before and reduction due to social transfers

Tuble 10 10.			t-risk-of	-poverty				3			uction du	le to
		Total		Less	than 18 y	ears	65 y	ears or o	ver		transfer	
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	n.a.	26.0	26.1	n.a.	35.2	34.6	n.a.	19.9	17.1	n.a.	36.5	34.1
Anglo-Saxon	30.6	31.6	29.8	41.2	44.9	42.2	34.0	28.0	24.4	37.9	45.9	43.7
Ireland	32.3	39.9	37.2	40.0	50.9	44.6	43.0	23.1	18.3	39.0	61.9	58.9
Malta	20.1	23.5	23.8	26.0	32.2	32.5	25.3	24.8	28.1	28.9	34.0	33.2
United Kingdom	30.6	31.0	29.3	41.4	44.5	42.1	33.4	28.4	24.8	37.9	44.8	42.7
Continental	24.4	24.4	24.5	31.7	33.5	31.7	17.1	14.6	14.7	48.7	41.8	39.6
Austria	25.5	26.0	25.4	37.3	37.8	37.7	16.2	19.5	16.6	50.6	43.5	44.5
Belgium	28.3	26.7	27.5	33.7	31.8	33.5	25.7	24.0	20.8	47.7	45.3	43.6
France	26.0	24.9	24.0	34.0	36.2	34.3	20.9	12.2	11.3	50.0	46.6	44.6
Germany	23.1	24.2	25.0	29.9	32.8	30.2	14.7	15.2	17.3	47.2	35.5	33.2
Luxembourg	23.8	29.1	27.6	35.7	43.1	42.6	10.5	10.6	8.9	42.4	50.2	40.6
Netherlands	21.7	21.1	21.3	27.5	25.2	24.1	9.9	12.6	10.6	50.7	51.2	45.5
Eastern	27.5	25.2	24.5	37.3	34.1	34.4	12.8	18.9	16.3	37.6	33.1	27.6
Bulgaria	n.a.	27.1	27.3	n.a.	34.1	38.9	n.a.	37.7	27.4	n.a.	23.6	20.1
Croatia	n.a.	30.0	29.9	n.a.	31.1	35.2	n.a.	39.9	32.9	n.a.	31.3	35.1
Czech Republic	21.2	18.1	17.2	33.3	26.0	25.7	11.2	12.6	10.0	50.9	50.3	43.6
Estonia	24.2	24.9	28.4	31.1	31.1	28.5	22.4	17.7	36.1	24.4	36.5	23.2
Hungary	29.4	28.4	26.3	44.2	47.4	45.6	11.5	8.6	7.1	54.1	56.7	44.5
Latvia	25.8	28.5	27.0	30.8	36.8	33.5	26.4	22.2	31.7	24.8	26.7	21.5
Lithuania	26.1	31.3	27.5	33.9	43.6	34.9	19.7	12.7	23.3	21.5	34.5	30.5
Poland	29.8	24.4	23.1	39.0	30.7	29.4	10.9	17.5	14.6	31.2	27.9	26.4
Romania	n.a.	27.5	28.5	n.a.	39.4	43.2	n.a.	19.6	17.0	n.a.	23.3	10.9
Slovakia	21.9	19.8	19.6	29.4	29.3	30.1	12.4	11.9	9.0	39.3	39.4	35.7
Slovenia	25.9	24.2	25.1	28.2	25.9	27.5	32.7	32.1	27.3	52.9	47.5	42.2
Nordic	28.8	27.4	27.8	31.6	29.0	30.6	28.8	26.9	21.5	62.8	52.3	50.9
Denmark	29.9	29.1	26.9	25.2	24.0	23.8	42.2	34.8	16.8	60.5	54.3	55.0
Finland	28.0	27.0	27.6	30.9	29.7	32.3	27.3	25.1	22.0	58.2	51.5	53.6
Sweden	28.7	26.7	28.5	35.8	31.5	33.7	21.7	23.3	24.0	66.9	51.7	47.0
Southern	24.0	25.8	27.3	30.3	33.8	35.1	28.6	22.8	16.1	18.5	24.2	24.1
Cyprus	21.7	23.5	24.6	20.4	25.0	27.2	54.1	44.1	24.6	25.8	33.6	41.5
Greece	22.6	23.8	26.0	22.6	25.8	31.0	32.2	27.5	17.2	13.3	15.5	15.0
Italy	23.6	23.7	24.7	31.5	32.8	33.0	24.9	19.0	15.9	18.6	21.1	21.5
Portugal	25.7	26.4	26.7	31.0	32.2	33.6	31.8	24.9	18.5	24.5	32.2	27.0
Spain	24.5	28.8	31.1	30.6	37.5	39.3	31.3	25.7	15.3	18.0	28.1	28.6
n a not available												

Table 10-11: Percent of children aged 4-schooling age in early education

	2006	2010	2013
EU-28	89.2	92.9	93.9
Anglo-Saxon	88.9	96.0	96.2
Ireland	70.9	100.0	97.2
Malta	98.2	98.6	100.0
United Kingdom	90.1	95.7	96.1
Continental	93.9	97.8	98.2
Austria	88.1	92.1	93.9
Belgium	99.9	99.1	98.1
France	100.0	100.0	100.0
Germany	93.0	96.2	97.0
Luxembourg	95.0	94.6	99.4
Netherlands	74.2	99.6	99.5
Eastern	75.8	82.8	85.5
Bulgaria	80.5	85.3	87.8
Croatia	64.1	70.4	71.4
Czech Republic	93.0	89.5	85.7
Estonia	94.7	90.4	90.4
Hungary	94.5	94.3	94.7
Latvia	88.4	90.3	94.1
Lithuania	78.1	83.8	86.5
Poland	64.0	76.3	83.8
Romania	82.9	87.2	86.4
Slovakia	78.7	76.9	77.5
Slovenia	81.6	88.5	89.8
Nordic	85.3	90.1	93.3
Denmark	92.0	98.1	98.3
Finland	68.1	73.1	84.0
Sweden	91.3	95.1	95.7
Southern	95.1	95.7	95.8
Cyprus	83.0	85.3	84.3
Greece	68.5	74.0	76.4
Italy	100.0	99.0	98.7
Portugal	84.5	91.1	93.9
Spain	98.2	97.9	97.1

Table 10-12: Participants in upper sec. education related to the pop. aged 15-20

		Total			Males			Females	
	2006	2010	2013	2006	2010	2013	2006	2010	2013
EU-28	73.4	75.8	80.6	72.3	75.3	79.8	74.5	76.3	81.4
Anglo-Saxon	88.5	84.2	101.9	85.2	82.3	97.8	92.0	86.1	106.2
Ireland	47.9	54.7	55.8	44.7	52.2	54.2	51.3	57.4	57.5
Malta	36.5	39.9	69.7	37.6	45.2	67.6	35.2	34.3	72.1
United Kingdom	91.7	86.6	105.4	88.3	84.8	101.1	95.1	88.5	109.9
Continental	67.2	69.8	69.4	67.5	70.5	69.9	67.0	69.0	68.8
Austria	79.1	76.5	77.0	81.7	79.1	79.3	76.3	73.7	74.5
Belgium	124.1	132.7	121.5	117.6	121.9	111.0	130.8	144.0	132.5
France	65.1	65.4	66.0	64.3	64.5	64.9	66.0	66.2	67.0
Germany	60.4	63.6	63.3	62.3	67.2	66.7	58.4	59.8	59.7
Luxembourg	72.1	76.1	76.0	69.5	74.8	74.6	74.8	77.4	77.4
Netherlands	67.4	72.5	73.2	66.9	71.5	72.7	67.9	73.6	73.8
Eastern	72.7	76.2	76.8	73.2	76.5	77.2	72.2	75.8	76.4
Bulgaria	74.0	76.0	84.6	74.7	77.3	86.1	73.3	74.7	83.0
Croatia	75.2	75.2	76.3	73.7	73.7	75.0	76.7	76.7	77.7
Czech Republic	75.8	76.8	85.5	74.3	75.6	84.9	77.4	78.0	86.0
Estonia	60.0	66.9	68.6	56.5	65.8	67.8	63.8	68.0	69.4
Hungary	86.9	89.8	88.3	85.8	89.0	87.1	88.2	90.7	89.4
Latvia	60.9	69.7	71.9	59.1	69.4	72.8	62.8	70.0	70.9
Lithuania	46.8	49.5	48.6	45.9	49.7	49.8	47.7	49.3	47.3
Poland	70.1	70.2	72.1	72.3	71.7	73.4	67.8	68.7	70.7
Romania	70.7	84.4	78.0	69.5	84.8	78.6	71.9	84.1	77.4
Slovakia	75.2	76.0	70.1	73.9	74.2	68.2	76.5	78.0	72.2
Slovenia	93.9	91.6	94.4	92.9	92.2	94.5	94.9	91.0	94.4
Nordic	93.2	90.9	95.7	85.0	85.5	89.8	101.9	96.5	102.1
Denmark	83.0	80.9	86.9	77.7	78.5	85.3	88.5	83.5	88.6
Finland	106.3	110.5	112.1	99.2	104.3	104.8	113.7	116.9	119.7
Sweden	91.8	85.5	91.7	81.2	78.9	83.9	103.0	92.5	99.9
Southern	73.0	76.6	85.2	71.2	75.7	84.7	74.9	77.6	85.8
Cyprus	56.7	52.6	54.9	56.1	52.3	54.8	57.4	53.0	54.9
Greece	58.3	62.0	67.9	59.3	63.6	69.2	57.3	60.4	66.6
Italy	97.0	97.8	98.4	96.7	97.8	98.6	97.3	97.8	98.3
Portugal	59.4	84.3	72.3	54.5	80.5	71.3	64.6	88.2	73.3
Spain	48.2	51.8	75.4	44.5	49.7	73.6	52.2	54.1	77.3

Table 10-13: Participants in tertiary education related to the pop. aged 20-24

		Total			Males			Females	
	2006	2010	2013	2006	2010	2013	2006	2010	2013
EU-28	58.7	63.7	63.7	51.9	55.9	57.1	65.7	71.7	70.4
Anglo-Saxon	58.3	59.1	56.5	49.8	51.8	49.5	66.9	66.5	63.6
Ireland	54.1	57.9	75.8	48.1	56.3	74.1	60.1	59.3	77.5
Malta	30.4	36.6	41.6	25.6	30.8	35.9	35.4	43.0	47.7
United Kingdom	58.8	59.4	55.2	50.1	51.6	47.9	67.5	67.2	62.7
Continental	51.6	55.8	60.0	48.6	51.7	57.7	54.5	59.9	62.4
Austria	48.0	67.3	78.5	43.9	62.4	71.9	52.2	72.2	85.3
Belgium	61.9	67.4	69.2	55.8	60.2	60.7	68.1	74.7	77.9
France	54.4	55.7	59.3	48.5	49.9	53.5	60.3	61.5	65.2
Germany	47.2	51.8	56.9	46.8	49.4	58.8	47.6	54.3	54.9
Luxembourg	9.6	n.a.	19.9	n.a.	n.a.	19.0	n.a.	n.a.	20.9
Netherlands	59.3	64.3	63.9	57.2	61.2	61.2	61.4	67.3	66.5
Eastern	62.9	69.0	63.2	52.3	56.5	52.2	74.0	82.1	74.8
Bulgaria	47.8	57.9	62.1	43.0	50.0	54.8	52.9	66.3	69.7
Croatia	47.7	52.4	64.9	42.9	41.5	55.2	52.8	63.8	75.0
Czech Republic	48.9	63.9	64.8	44.3	53.7	54.0	53.8	74.6	76.0
Estonia	69.1	68.5	70.3	51.8	51.9	56.5	87.4	86.2	85.0
Hungary	65.0	59.9	57.0	53.0	51.0	49.7	77.4	69.1	64.8
Latvia	77.0	68.8	65.8	55.2	50.2	52.5	99.7	88.4	79.9
Lithuania	85.2	87.6	74.3	67.1	70.3	60.2	103.8	105.4	89.2
Poland	64.7	74.4	71.2	54.2	59.6	56.1	75.6	89.8	87.0
Romania	52.6	72.1	48.5	45.8	60.8	43.1	59.7	84.1	54.4
Slovakia	44.6	56.7	54.0	36.9	44.8	42.7	52.6	69.1	65.7
Slovenia	82.5	86.9	83.2	66.8	69.8	68.4	99.0	105.9	98.9
Nordic	83.0	79.6	76.4	69.5	66.5	64.3	97.1	93.3	89.0
Denmark	78.6	73.7	81.0	66.1	60.6	68.5	91.4	87.2	93.8
Finland	92.5	93.6	90.9	83.5	84.4	82.4	102.0	103.1	99.9
Sweden	80.2	75.2	65.4	63.4	59.7	51.5	97.7	91.3	80.0
Southern	64.9	70.1	71.9	56.9	62.0	64.5	73.2	78.5	79.6
Cyprus	34.1	47.1	45.0	33.0	50.1	39.4	35.4	44.1	50.7
Greece	86.0	97.9	106.8	80.1	95.3	107.1	92.6	100.6	106.5
Italy	65.8	65.6	60.7	55.7	54.6	51.0	76.3	77.0	70.8
Portugal	53.8	64.8	64.9	47.6	59.9	60.3	60.2	69.9	69.5
Spain	61.6	70.8	80.6	55.4	64.1	73.7	68.0	77.8	87.7

Table 10-14: Educational attainment compared to parents' educ. (people aged 25-34)

	2012 (or nearest year)				
	downward	upward	Same level		
EU	13.7	33.8	52.6		
Anglo-Saxon					
Ireland	11.6	44.6	43.8		
Continental	18.2	28.9	53.0		
Austria	21.3	21.2	57.5		
France	10.4	39.9	49.7		
Germany	24.4	18.7	56.8		
Netherlands	17.0	38.2	44.8		
Eastern	8.6	31.0	60.4		
Czech Republic	11.8	17.2	71.1		
Estonia	26.9	23.3	49.7		
Poland	6.9	36.3	56.8		
Slovakia	22.0	29.3	48.7		
Nordic	17.9	27.9	54.2		
Denmark	15.1	39.2	45.7		
Finland	28.3	24.5	47.2		
Sweden	7.5	43.5	49.0		
Southern	5.5	45.4	49.1		
Italy	10.1	41.1	48.8		
Spain	13.7	33.8	52.6		

Source: OECD, 2015.

Table 10-15: Percentage of upward mobility among tertiary attainment

	2012 (or nearest year)
EU	59.2
Anglo-Saxon	
Ireland	59.6
Continental	49.2
Austria	58.5
France	57.6
Germany	40.8
Netherlands	52.1
Eastern	64.2
Czech Republic	52.9
Estonia	44.4
Poland	68.1
Slovakia	63.8
Nordic	45.2
Denmark	41.2
Finland	62.0
Sweden	38.1
Southern	75.3
Italy	77.6
Spain	72.3

Source: OECD, 2015.

Table 10-16: Direct costs of upper sec. vs. comp. education in €/year

		2010 (or nearest year)		
	private	public		
EU	2,620.6	25,979.0		
Anglo-Saxon	4,918.3	19,850.7		
Ireland	1,084.0	25,625.0		
United Kingdom	5,195.0	19,434.0		
Continental	3,512.3	30,935.6		
Austria	2,084.0	43,971.0		
France	2,904.0	33,511.0		
Germany	3,973.0	27,953.0		
Netherlands	4,358.0	28,879.0		
Eastern	1,406.9	18,661.9		
Czech Republic	2,130.0	21,080.0		
Estonia	249.0	19,081.0		
Hungary	878.0	15,696.0		
Poland	1,276.0	19,278.0		
Slovakia	2,007.0	14,722.0		
Slovenia	1,833.0	19,303.0		
Nordic	271.6	28,332.6		
Denmark	797.0	32,430.0		
Finland	178.0	21,711.0		
Sweden	16.0	29,675.0		
Southern	1,202.4			
Greece	1,780.0	22,045.0		
Italy	986.0	32,919.0		
Portugal	0.0	26,371.0		
Spain	1,613.0	18,107.0		

Source: OECD, 2014.

Table 10-17: Direct costs of upper sec. vs. comp. education in €/year

	2010 (or nearest year)			
	private	public		
EU	8,498.3	24,677.7		
Anglo-Saxon	19,241.0	8,229.5		
Ireland	6,478.0	28,066.0		
United Kingdom	20,162.0	6,798.0		
Continental	6,862.0	32,184.2		
Austria	6,199.0	44,819.0		
France	2,780.0	24,413.0		
Germany	6,963.0	31,533.0		
Netherlands	5,813.0	31,421.0		
Eastern	14,646.0	37,254.0		
Czech Republic	6,308.9	17,337.8		
Estonia	5,029.0	18,717.0		
Hungary	3,924.0	12,037.0		
Poland	4,664.0	16,393.0		
Slovakia	7,343.0	17,653.0		
Slovenia	6,183.0	14,559.0		
Nordic	3,564.0	19,698.0		
Denmark	3,375.3	50,483.1		
Finland	4,509.0	85,578.0		
Sweden	1,873.0	42,400.0		
Southern	3,560.0	34,448.0		
Greece	7,076.8	22,392.9		
Italy	690.0	20,179.0		
Portugal	7,285.0	17,538.0		
Spain	4,627.0	10,295.0		

Source: OECD, 2014.

Table 10-18: Benefit-cost ratios for upper sec. compared to comp. education 2010

	Ma	les	Females		
	private	public			
EU	4.4	2.9	3.5	3.1	
Anglo-Saxon	4.7	8.7	2.0	9.1	
Ireland	8.8	3.6	4.2	1.1	
United Kingdom	4.4	9.0	1.8	9.7	
Continental	2.5	1.8	2.1	2.4	
Austria	4.1	3.0	2.6	2.0	
France	2.9	1.4	2.5	1.7	
Germany	2.1	1.7	1.8	2.9	
Netherlands	1.7	2.8	1.6	n.a.	
Eastern	5.7	1.8	5.7	1.7	
Czech Republic	6.3	2.9	5.7	3.1	
Estonia	13.0	1.5	4.8	0.6	
Hungary	6.8	2.5	5.7	2.3	
Poland	3.6	1.1	4.2	1.2	
Slovakia	16.4	3.7	18.3	2.3	
Slovenia	4.1	2.5	3.0	2.4	
Nordic	3.8	2.2	2.8	1.9	
Denmark	3.0	2.1	2.3	1.3	
Finland	2.0	1.6	1.5	1.5	
Sweden	5.3	2.7	3.9	2.5	
Southern	6.1	2.0	5.2	1.6	
Greece	1.5	2.5	3.0	1.7	
Italy	2.6	1.9	2.9	1.6	
Portugal	6.5	1.6	5.4	0.8	
Spain	11.7	2.1	8.6	1.8	

n.a. not available Source: OECD, 2014.

Table 10-19: Benefit-cost ratios for tertiary compared to upper sec. education 2010

	Ма	les	Females		
	private	public			
EU	5.5	5.1	4.2	4.3	
Anglo-Saxon	5.0	9.7	4.2	12.0	
Ireland	10.3	9.1	5.7	5.5	
United Kingdom	4.7	9.8	4.1	12.4	
Continental	4.3	3.8	3.0	2.4	
Austria	3.5	2.7	2.8	2.3	
France	4.0	6.1	4.0	5.9	
Germany	4.7	3.3	3.7	2.4	
Netherlands	4.5	4.4	2.5	2.1	
Eastern	2.2	2.4	2.0	2.0	
Czech Republic	12.3	5.9	8.0	4.2	
Estonia	8.9	7.7	5.5	5.1	
Hungary	10.5	3.5	8.3	3.1	
Poland	15.4	10.9	8.9	6.5	
Slovakia	12.8	4.1	8.6	3.3	
Slovenia	11.2	5.4	7.3	3.7	
Nordic	8.8	7.4	6.8	5.8	
Denmark	2.8	1.8	2.0	1.0	
Finland	2.3	1.2	1.6	0.6	
Sweden	3.9	2.8	2.4	1.5	
Southern	2.5	1.7	2.0	1.0	
Greece	4.3	4.7	4.2	3.3	
Italy	2.6	4.3	3.4	4.8	
Portugal	3.7	6.2	2.4	3.2	
Spain	10.4	10.0	9.6	7.3	

n.a. not available Source: OECD, 2014.

Table 10-20: Increase in likelihood of reporting good health

	2012 (or ne	2012 (or nearest year)			
	Upper secondary vs. below upper secondary education	Tertiary vs. below upper secondary education			
EU	4.9	8.4			
Anglo-Saxon					
Ireland	1.0	2.0			
Continental	4.2	7.9			
Austria	9.0	11.0			
France	5.0	10.0			
Germany	2.0	5.0			
Netherlands	9.0	12.0			
Eastern	9.2	13.9			
Czech Republic	10.0	12.0			
Estonia	10.0	21.0			
Poland	8.0	13.0			
Slovakia	16.0	22.0			
Nordic	7.9	12.0			
Denmark	8.0	13.0			
Finland	6.0	11.0			
Sweden	9.0	12.0			
Southern	3.6	6.0			
Italy	4.0	6.0			
Spain	3.0	6.0			

Controlling for age, gender and income Source: OECD, 2015.

Table 10-21: Increase in likelihood of reporting to trust others

	2012 (or nearest year)				
	Upper secondary vs. below upper secondary education	Tertiary vs. below upper secondary education			
EU	3.5	13.8			
Anglo-Saxon					
Ireland	3.0	11.0			
Continental	2.8	13.6			
Austria	7.0	16.0			
France	3.0	11.0			
Germany	1.0	13.0			
Netherlands	9.0	26.0			
Eastern	0.6	12.6			
Czech Republic	-2.0	10.0			
Estonia	0.0	8.0			
Poland	1.0	14.0			
Slovakia	3.0	9.0			
Nordic	8.1	24.4			
Denmark	10.0	29.0			
Finland	8.0	22.0			
Sweden	7.0	23.0			
Southern	5.1	12.6			
Italy	6.0	10.0			
Spain	4.0	16.0			

Controlling for age, gender and income Source: OECD, 2015.

Table 10-22: Employment rates by age

Tuble 10 22:	Бигр	0)11101	rerates	b) ag								
	15	– 64 yea	rs	55 – 64 years			15 – 24 years			25 – 54 years		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	63.4	64.1	64.9	42.2	46.2	51.8	35.9	33.8	32.5	77.0	77.7	77.5
Anglo-Saxon	71.3	68.7	71.2	56.3	56.6	60.3	54.0	45.8	46.8	80.9	79.1	81.4
Ireland	67.6	59.6	61.7	51.6	50.2	53.0	48.7	31.5	28.4	77.9	70.3	72.6
Malta	53.6	56.2	62.3	31.9	31.9	37.7	45.0	44.2	46.1	63.1	68.6	75.8
United Kingdom	71.7	69.4	71.9	56.8	57.2	61.0	54.4	46.8	48.1	81.2	79.8	82.1
Continental	65.4	68.3	69.5	41.6	49.0	56.0	39.6	41.0	39.7	79.3	82.0	82.0
Austria	67.4	70.8	71.1	29.9	41.2	45.1	51.6	52.8	52.1	81.6	83.3	83.4
Belgium	61.1	62.0	61.9	31.8	37.3	42.7	27.5	25.2	23.2	78.3	80.0	79.1
France	63.8	64.0	64.3	38.5	39.7	47.0	30.4	30.1	28.4	80.8	82.0	80.4
Germany	65.5	71.1	73.8	45.5	57.7	65.6	41.9	46.2	46.1	77.4	81.5	83.5
Luxembourg	63.6	65.2	66.6	31.7	39.6	42.5	24.9	21.2	20.4	80.7	82.3	83.7
Netherlands	73.2	74.7	73.1	46.1	53.7	59.9	65.2	63.0	58.8	82.9	84.7	81.7
Eastern	56.8	59.5	62.3	34.4	38.8	44.9	24.1	24.3	24.5	73.5	76.7	78.3
Bulgaria	55.8	59.7	61.0	34.7	43.5	50.0	21.6	22.2	20.7	73.0	75.7	74.5
Croatia	55.0	57.4	54.6	32.6	39.1	36.2	25.8	24.2	18.3	71.8	72.6	71.2
Czech Republic	64.8	65.0	69.0	44.5	46.5	54.0	27.5	25.2	27.1	82.0	82.2	83.8
Estonia	64.8	61.2	69.6	55.7	53.8	64.0	30.7	25.3	33.3	79.1	74.9	80.9
Hungary	56.9	54.9	61.8	33.0	33.6	41.7	21.8	18.3	23.5	73.7	72.5	79.2
Latvia	62.1	58.5	66.3	48.3	47.8	56.4	32.2	25.4	32.5	77.1	72.6	78.2
Lithuania	62.9	57.6	65.7	49.6	48.3	56.2	21.2	18.3	27.6	80.9	73.6	80.8
Poland	52.8	58.9	61.7	27.2	34.1	42.5	22.5	26.4	25.8	69.6	77.2	78.4
Romania	57.6	60.2	61.0	39.4	40.7	43.1	24.9	24.3	22.5	73.3	76.8	77.1
Slovakia	57.7	58.8	61.0	30.3	40.5	44.8	25.6	20.6	21.8	75.3	75.8	76.8
Slovenia	66.0	66.2	63.9	30.7	35.0	35.4	34.1	34.1	26.8	83.8	83.7	81.9
Nordic	72.3	71.4	72.7	62.2	63.4	67.1	45.7	44.1	45.4	83.5	83.0	83.2
Denmark	75.9	73.3	72.8	59.5	58.4	63.2	62.3	58.1	53.7	84.5	82.8	82.0
Finland	68.4	68.1	68.7	52.7	56.2	59.1	40.5	38.8	41.4	81.7	81.6	80.5
Sweden	72.5	72.1	74.9	69.4	70.4	74.0	38.7	38.8	42.8	83.9	84.0	85.4
Southern	60.8	58.5	55.9	38.2	40.7	44.6	31.0	22.7	16.4	74.1	71.6	68.1
Cyprus	68.5	68.9	62.1	50.6	56.3	46.9	36.7	33.8	25.8	81.8	82.2	76.2
Greece	59.6	59.1	49.4	42.0	42.4	34.0	25.0	20.1	13.3	74.0	73.2	62.4
Italy	57.6	56.8	55.7	31.4	36.5	46.2	25.7	20.2	15.6	72.3	71.1	67.9
Portugal	67.3	65.3	62.6	50.4	49.5	47.8	35.3	27.9	22.4	80.7	79.2	77.4
Spain	63.6	58.8	56.0	43.1	43.5	44.3	38.5	25.0	16.7	74.8	70.0	67.4
C	016											

Table 10-23: Employment rates by gender

EU-28         70.7         70.0         70.1         56.1         58.2         59.6           Anglo-Saxon         77.6         73.7         76.1         65.1         63.8         66.3           Ireland         76.9         63.5         66.9         58.3         55.8         56.7           Malta         73.5         72.5         74.9         33.4         39.5         49.3           United Kingdom         77.7         74.4         76.8         65.8         64.5         67.1           Continental         71.3         73.1         73.5         59.5         63.5         65.4           Austria         73.7         76.0         75.2         61.1         65.7         66.9           Belgium         68.3         67.4         65.8         33.8         66.5         66.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Euxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Eastern         62.8         65.5         6	Tuble 10 25. Ell	ipioyilielle ruces b	Males			Females	
EU-28         70.7         70.0         70.1         56.1         58.2         59.6           Anglo-Saxon         77.6         73.7         76.1         65.1         63.8         66.3           Ireland         76.9         63.5         66.9         58.3         55.8         56.7           Malta         73.5         72.5         74.9         33.4         39.5         49.3           United Kingdom         77.7         74.4         76.8         65.8         64.5         67.1           Continental         71.3         73.1         73.5         59.5         63.5         65.4           Austria         73.7         76.0         75.2         61.1         65.7         66.9           Belgium         68.3         67.4         65.8         53.8         56.5         57.9           France         69.3         68.3         67.7         58.4         59.8         60.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Luxembourg         73.3         73.1         72							
Anglo-Saxon         77.6         73.7         76.1         65.1         63.8         66.3           Ireland         76.9         63.5         66.9         58.3         55.8         56.7           Malta         73.5         72.5         74.9         33.4         39.5         49.3           United Kingdom         77.7         74.4         76.8         65.8         64.5         67.1           Continental         71.3         73.1         73.5         59.5         63.5         65.4           Austria         73.7         76.0         75.2         61.1         65.7         66.9           Belgium         68.3         67.4         65.8         53.8         56.5         57.9           France         69.3         68.3         67.7         58.4         59.8         60.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Bulgaria         60.0         63.0 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>							
Ireland							
Malta         73.5         72.5         74.9         33.4         39.5         49.3           United Kingdom         77.7         74.4         76.8         65.8         64.5         67.1           Continental         71.3         73.1         73.5         59.5         63.5         65.4           Austria         73.7         76.0         75.2         61.1         65.7         66.9           Belgium         68.3         67.4         65.8         53.8         56.5         57.9           France         69.3         68.3         67.7         58.4         59.8         60.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Wetherlands         79.9         80.0         78.1         66.4         50.8         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59							
United Kingdom         77.7         74.4         76.8         65.8         64.5         67.1           Continental         71.3         73.1         73.5         59.5         63.5         65.4           Austria         73.7         76.0         75.2         61.1         65.7         66.9           Belgium         68.3         67.4         65.8         53.8         56.5         57.9           France         69.3         68.3         67.7         58.4         59.8         60.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Estonia         66.7         61.7							
Continental         71.3         73.1         73.5         59.5         63.5         65.4           Austria         73.7         76.0         75.2         61.1         65.7         66.9           Belgium         68.3         67.4         65.8         53.8         56.5         57.9           France         69.3         68.3         67.7         58.4         59.8         60.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Zech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         7	Malta						
Austria         73.7         76.0         75.2         61.1         65.7         66.9           Belgium         68.3         67.4         65.8         53.8         56.5         57.9           France         69.3         68.3         67.7         58.4         59.8         60.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Zeck Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73	United Kingdom	77.7	74.4	76.8	65.8	64.5	67.1
Belgium         68.3         67.4         65.8         53.8         56.5         57.9           France         69.3         68.3         67.7         58.4         59.8         60.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Czech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4<	Continental	71.3	73.1	73.5	59.5	63.5	65.4
France         69.3         68.3         67.7         58.4         59.8         60.9           Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Czech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.	Austria	73.7	76.0	75.2	61.1	65.7	66.9
Germany         71.3         76.0         78.1         59.6         66.1         69.5           Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Czech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.	Belgium	68.3	67.4	65.8	53.8	56.5	57.9
Luxembourg         73.3         73.1         72.6         53.7         57.2         60.5           Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Czech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lativia         66.4         57.9         68.4         58.2         59.0         64.3           Lativia         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2<	France	69.3	68.3	67.7	58.4	59.8	60.9
Netherlands         79.9         80.0         78.1         66.4         69.3         68.1           Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Czech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6<	Germany	71.3	76.0	78.1	59.6	66.1	69.5
Eastern         62.8         65.5         68.4         50.8         53.6         56.1           Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Zech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5	Luxembourg	73.3	73.1	72.6	53.7	57.2	60.5
Bulgaria         60.0         63.0         63.9         51.7         56.4         58.2           Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Czech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5	Netherlands	79.9	80.0	78.1	66.4	69.3	68.1
Croatia         61.7         62.7         59.1         48.6         52.1         50.0           Czech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Finland         70.3         69.4         69.5	Eastern	62.8	65.5	68.4	50.8	53.6	56.1
Czech Republic         73.3         73.5         77.0         56.3         56.3         60.7           Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Penmark         79.8         75.6         75.8         71.9         71.1         69.8           Sweden         74.4         74.6         76.5	Bulgaria	60.0	63.0	63.9	51.7	56.4	58.2
Estonia         66.7         61.7         73.0         63.1         60.8         66.3           Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5	Croatia	61.7	62.7	59.1	48.6	52.1	50.0
Hungary         63.1         59.9         67.8         51.0         50.2         55.9           Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8	Czech Republic	73.3	73.5	77.0	56.3	56.3	60.7
Latvia         66.4         57.9         68.4         58.2         59.0         64.3           Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0	Estonia	66.7	61.7	73.0	63.1	60.8	66.3
Lithuania         66.4         56.5         66.5         59.6         58.5         64.9           Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0	Hungary	63.1	59.9	67.8	51.0	50.2	55.9
Poland         58.9         65.3         68.2         46.8         52.6         55.2           Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7	Latvia	66.4	57.9	68.4	58.2	59.0	64.3
Romania         63.7         67.9         68.7         51.5         52.5         53.3           Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8 <t< td=""><td>Lithuania</td><td>66.4</td><td>56.5</td><td>66.5</td><td>59.6</td><td>58.5</td><td>64.9</td></t<>	Lithuania	66.4	56.5	66.5	59.6	58.5	64.9
Slovakia         64.6         65.2         67.6         50.9         52.3         54.3           Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Poland	58.9	65.3	68.2	46.8	52.6	55.2
Slovenia         70.4         69.6         67.5         61.3         62.6         60.0           Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Romania	63.7	67.9	68.7	51.5	52.5	53.3
Nordic         74.8         73.5         74.5         69.8         69.3         70.9           Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Slovakia	64.6	65.2	67.6	50.9	52.3	54.3
Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Slovenia	70.4	69.6	67.5	61.3	62.6	60.0
Denmark         79.8         75.6         75.8         71.9         71.1         69.8           Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Nordic	74.8	73.5	74.5	69.8	69.3	70.9
Finland         70.3         69.4         69.5         66.5         66.9         68.0           Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Denmark	79.8	75.6	75.8			69.8
Sweden         74.4         74.6         76.5         70.4         69.7         73.1           Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Finland	70.3	69.4	69.5	66.5		
Southern         72.4         67.0         62.8         49.2         50.0         49.0           Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Sweden	74.4					
Cyprus         79.2         75.3         66.0         58.4         63.0         58.6           Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6	Southern						
Greece         73.4         70.3         58.0         46.0         48.0         41.1           Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6							
Italy         69.9         67.5         64.7         45.4         46.1         46.8           Portugal         73.3         69.8         65.8         61.6         61.0         59.6							
Portugal 73.3 69.8 65.8 61.6 61.0 59.6							
	Spain	75.1	64.8	60.7	51.8	52.8	51.2

Table 10-24: Employment rates by education

		primary, pr econdary ec			econdary a dary non-te education		Tertiary education			
	2005	2010	2014	2005	2010	2014	2005	2010	2014	
EU-28	47.3	45.1	43.3	68.1	68.3	68.4	82.6	82.3	82.0	
Anglo-Saxon	60.6	51.0	53.6	76.9	70.6	72.0	87.3	83.7	84.0	
Ireland	49.5	36.9	33.9	73.2	61.0	62.7	85.5	79.4	80.2	
Malta	45.8	47.0	50.4	65.2	63.1	69.8	82.8	83.0	86.7	
United Kingdom	61.5	52.1	55.0	77.2	71.4	72.7	87.4	84.0	84.3	
Continental	45.8	46.4	44.7	69.9	72.2	72.2	81.5	84.0	84.7	
Austria	45.9	48.3	47.5	72.1	75.7	73.8	83.5	84.6	83.3	
Belgium	40.4	39.1	37.3	65.5	65.7	63.8	82.8	81.9	81.9	
France	48.0	45.4	41.2	69.1	68.0	65.7	78.3	80.3	81.2	
Germany	42.3	45.4	46.0	69.4	74.7	77.7	82.8	86.7	87.7	
Luxembourg	49.1	43.7	42.0	67.1	66.8	65.9	82.5	83.8	83.0	
Netherlands	58.4	59.2	55.6	77.4	78.7	76.0	85.4	86.6	86.8	
Eastern	27.9	28.2	28.7	62.5	63.3	65.2	82.5	81.8	82.4	
Bulgaria	29.3	29.7	29.7	65.0	65.3	65.2	80.3	82.7	81.7	
Croatia	35.2	35.2	26.9	59.4	60.9	57.0	79.7	80.2	78.4	
Czech Republic	21.8	22.0	23.0	71.8	70.4	73.6	84.6	81.0	82.2	
Estonia	29.1	26.3	37.0	68.4	63.5	70.5	83.9	78.4	83.2	
Hungary	28.0	25.4	31.5	64.9	60.7	66.7	82.5	77.5	80.8	
Latvia	32.8	27.2	32.7	68.2	60.6	67.7	83.6	80.1	83.4	
Lithuania	25.7	14.0	19.5	67.2	57.5	64.6	86.3	85.3	88.4	
Poland	23.0	23.6	22.7	56.7	61.8	62.9	81.1	82.5	83.9	
Romania	39.6	44.2	44.4	63.8	63.9	65.0	84.0	83.4	82.5	
Slovakia	13.3	14.3	17.7	66.4	65.1	66.9	83.2	78.0	75.6	
Slovenia	42.0	39.7	36.1	69.8	68.6	64.9	86.6	86.6	82.0	
Nordic	52.6	48.2	46.4	76.9	76.1	76.8	85.6	85.4	85.8	
Denmark	59.4	58.6	54.2	78.8	77.6	77.1	86.2	85.4	85.5	
Finland	45.8	41.1	39.3	72.0	71.2	70.6	84.2	84.0	83.3	
Sweden	52.5	46.0	45.9	78.6	78.0	80.2	86.0	86.3	87.3	
Southern	51.5	47.3	43.4	65.7	63.3	59.2	80.1	77.8	75.1	
Cyprus	53.0	51.7	40.4	72.1	70.5	62.5	85.0	82.7	77.3	
Greece	50.0	49.5	39.0	59.9	58.0	47.0	80.9	78.8	67.6	
Italy	46.0	43.4	41.8	66.8	65.6	62.6	78.5	76.5	75.5	
Portugal	65.5	61.5	55.4	63.1	65.8	65.9	85.6	82.8	79.4	
Spain 15 to (4 or	55.8	48.3	44.0	66.1	60.9	56.0	80.5	77.9	75.3	

People from 15 to 64 years. ISCED 11: Level 0 – 2: Less than primary, primary and lower secondary education; Level 3 and 4: Upper secondary and post-secondary non-tertiary education; Level 5 – 8: Tertiary education. Source: Eurostat, 2016.

 Table 10-25:
 Part-time employment by age

	15	– 64 yea	rs	55	55 – 64 years			15 – 24 years			25 – 59 years		
EU-28	2005 <b>17.2</b>	2010 <b>18.5</b>	2014 <b>19.6</b>	2005 <b>21.7</b>	2010	2014 <b>22.5</b>	2005 <b>24.7</b>	2010 <b>29.1</b>	2014 <b>31.8</b>	2005 <b>15.9</b>	2010 <b>16.9</b>	2014 <b>17.9</b>	
Anglo-Saxon	24.1	25.4	25.1	31.4	31.3	31.5	33.7	39.8	38.4	20.2	21.0	22.2	
Ireland	n.a.	22.2	23.0	n.a.	27.6	27.6	n.a.	42.5	45.2	0.0	0.0	20.3	
Malta	9.0	11.6	15.5	10.6	14.8	16.8	14.1	17.8	26.6	7.5	9.9	13.1	
United Kingdom	24.2	25.7	25.3	31.5	31.7	31.9	33.8	39.7	38.0	21.7	22.6	22.4	
Continental	23.0	24.6	25.6	26.3	27.9	29.4	23.7	25.9	28.8	22.5	24.0	24.6	
Austria	21.0	24.4	26.9	25.2	27.8	28.2	15.9	19.3	23.5	21.5	24.7	27.0	
Belgium	21.7	23.7	23.7	24.7	31.3	31.7	22.9	24.1	26.5	21.5	23.5	23.2	
France	17.1	17.6	18.6	21.0	22.0	23.5	22.0	22.3	24.9	16.3	16.7	17.4	
Germany	23.4	25.5	26.5	26.2	27.7	29.9	17.2	19.8	22.4	23.9	26.0	26.5	
Luxembourg	17.4	17.5	18.5	20.6	20.1	22.1	8.5	16.6	28.2	18.0	17.3	17.8	
Netherlands	45.7	48.3	49.6	48.8	50.0	49.2	68.3	74.7	78.9	40.9	42.6	43.8	
Eastern	7.4	7.2	6.8	15.4	13.6	10.8	14.0	13.7	13.9	6.1	6.0	5.7	
Bulgaria	1.9	2.2	2.5	3.8	3.5	3.4	3.0	5.0	6.0	1.6	1.8	2.1	
Croatia	7.8	7.0	5.3	18.6	12.5	9.5	9.0	8.2	12.4	6.6	6.5	4.3	
Czech Republic	4.4	5.1	5.5	8.3	8.4	8.0	3.3	9.0	10.7	3.9	4.2	4.7	
Estonia	6.8	9.8	8.3	9.0	14.3	9.9	15.0	22.2	20.1	5.3	8.0	6.8	
Hungary	3.9	5.5	6.0	9.9	10.5	10.3	4.3	9.2	7.0	3.4	4.8	5.5	
Latvia	7.6	9.4	6.8	11.4	10.7	9.6	10.3	14.0	10.8	6.8	8.7	6.1	
Lithuania	6.9	7.8	8.6	11.7	11.5	11.2	8.4	11.4	13.7	6.5	7.2	7.8	
Poland	9.8	7.7	7.1	22.0	16.9	11.4	22.5	15.5	15.4	7.9	6.2	5.8	
Romania	9.2	9.9	8.7	16.9	17.6	15.3	15.9	17.8	17.1	7.8	8.4	7.3	
Slovakia	2.4	3.8	5.1	6.8	5.7	6.2	2.8	7.4	11.0	2.1	3.4	4.5	
Slovenia	7.8	10.3	10.0	14.9	17.8	14.3	30.1	40.9	42.4	5.0	6.5	7.2	
Nordic	20.5	22.6	21.8	23.0	24.9	21.7	45.4	50.5	52.0	16.4	17.6	16.6	
Denmark	21.5	25.6	24.6	19.5	24.6	20.2	56.0	62.4	66.9	15.7	18.6	16.9	
Finland	13.3	13.9	14.1	19.3	19.2	17.3	39.4	39.9	41.2	9.0	9.3	9.3	
Sweden	24.0	25.8	24.6	27.3	28.3	25.0	42.6	49.6	49.5	21.2	21.7	20.5	
Southern	11.3	12.8	15.9	10.9	11.4	13.1	16.6	24.5	31.9	10.7	11.9	15.1	
Cyprus	7.6	8.3	13.5	13.0	11.0	17.3	8.1	14.9	22.7	7.2	7.0	12.3	
Greece	4.8	6.3	9.3	5.0	6.3	7.7	11.1	16.5	21.9	4.2	5.6	8.7	
Italy	12.7	14.8	18.1	10.5	11.7	13.7	15.9	24.2	30.2	12.4	14.2	17.6	
Portugal	8.2	8.5	10.1	19.1	18.1	18.1	8.8	13.0	22.3	7.2	7.1	8.3	
Spain	12.0	12.9	15.8	10.8	10.8	12.3	20.9	29.7	38.9	10.9	11.6	14.8	

Table 10-26: Part-time employment rates by gender

		Males		Females				
	2005	2010	2014	2005	2010	2014		
EU-28	6.7	7.9	8.8	30.3	31.3	32.2		
Anglo-Saxon	9.0	11.0	11.3	41.7	41.7	40.8		
Ireland	n.a.	11.4	13.1	n.a.	34.4	34.4		
Malta	4.1	4.9	7.0	20.2	24.4	28.8		
United Kingdom	9.0	11.0	11.2	41.8	42.3	41.3		
Continental	7.7	9.2	10.1	41.3	42.2	43.1		
Austria	5.7	8.0	9.6	39.3	43.2	46.3		
Belgium	7.1	8.4	8.4	40.4	42.1	41.2		
France	5.6	6.4	7.4	30.3	30.0	30.5		
Germany	6.9	8.7	9.2	43.4	45.0	46.3		
Luxembourg	2.4	3.4	4.7	38.2	35.8	35.6		
Netherlands	21.8	24.2	26.1	75.0	76.2	76.7		
Eastern	5.6	5.4	4.8	9.5	9.3	9.1		
Bulgaria	1.5	2.0	2.2	2.3	2.5	2.8		
Croatia	5.4	5.1	4.2	10.7	9.4	6.7		
Czech Republic	1.6	2.2	2.5	8.0	9.1	9.5		
Estonia	4.5	6.1	5.7	9.1	13.4	11.2		
Hungary	2.4	3.7	4.1	5.6	7.7	8.3		
Latvia	5.6	7.6	4.7	9.7	10.9	8.9		
Lithuania	5.1	6.4	6.4	8.8	8.9	10.6		
Poland	7.0	5.0	4.4	13.3	10.9	10.3		
Romania	9.1	9.8	8.2	9.2	10.0	9.5		
Slovakia	1.2	2.6	3.7	3.9	5.2	6.8		
Slovenia	6.1	7.4	6.8	9.8	13.6	13.7		
Nordic	10.2	12.1	12.5	31.8	34.1	31.9		
Denmark	11.7	14.0	15.2	32.6	38.1	35.0		
Finland	8.6	8.9	9.2	18.2	19.0	19.3		
Sweden	10.3	12.7	12.8	39.2	40.3	37.3		
Southern	4.1	5.0	7.7	22.2	23.5	26.4		
Cyprus	3.2	5.1	10.3	13.2	11.8	16.8		
Greece	2.2	3.5	6.5	9.1	10.3	13.0		
Italy	4.3	5.1	7.8	25.5	28.8	32.1		
Portugal	3.8	5.0	7.6	13.3	12.4	12.6		
Spain	4.4	5.2	7.7	23.4	22.6	25.5		

Table 10-27: Involuntarily part-time employment

	Total Males							Females	
	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	n.a.	27.0	29.6	n.a.	36.2	40.2	n.a.	24.3	26.3
Anglo-Saxon	9.7	19.7	20.3	17.4	36.4	36.7	7.3	14.7	15.3
Ireland	11.9	32.5	41.4	21.2	51.9	59.5	9.0	25.7	33.6
Malta	21.9	19.6	15.1	29.4	34.7	25.9	19.1	13.9	11.0
United Kingdom	9.5	18.8	18.8	17.1	35.3	35.1	7.1	13.9	14.0
Continental	22.1	23.9	23.8	31.4	33.1	30.4	20.3	21.9	22.2
Austria	11.7	11.6	11.5	17.2	17.4	16.4	10.8	10.3	10.3
Belgium	16.5	11.4	10.1	20.8	15.1	15.2	15.5	10.5	8.9
France	30.0	34.8	42.4	33.7	38.8	48.9	29.3	33.9	40.8
Germany	21.4	21.9	14.5	37.3	37.8	22.3	18.4	18.7	12.8
Luxembourg	11.2	7.9	12.9	n.a.	n.a.	13.0	10.9	7.9	12.8
Netherlands	4.3	5.7	10.9	6.4	7.5	15.2	3.6	5.1	9.4
Eastern	36.6	31.8	38.1	39.3	35.5	40.9	33.2	27.8	35.0
Bulgaria	73.0	52.7	63.2	73.3	59.6	61.5	72.8	46.0	64.7
Croatia	22.5	23.1	25.5	34.1	34.2	28.0	15.2	15.9	23.7
Czech Republic	18.0	15.8	21.1	9.8	11.4	18.5	20.1	17.2	21.9
Estonia	19.5	22.1	15.1	20.2	18.8	13.4	19.3	23.6	16.1
Hungary	22.8	35.8	41.1	24.0	40.5	46.1	22.1	33.3	38.2
Latvia	38.9	42.3	38.1	48.0	47.5	40.9	33.5	39.1	36.7
Lithuania	49.2	39.2	31.3	50.5	38.7	32.6	48.4	39.5	30.5
Poland	31.8	21.7	32.3	32.7	22.3	31.9	31.3	21.4	32.5
Romania	55.8	53.0	56.9	68.0	64.1	69.5	41.2	38.9	42.5
Slovakia	20.4	27.7	33.4	19.2	34.8	39.5	20.8	23.4	29.1
Slovenia	7.2	7.5	9.6	5.2	6.7	9.2	8.7	8.1	9.9
Nordic	24.1	24.6	26.1	24.0	24.9	26.1	24.3	24.6	26.2
Denmark	16.8	15.6	16.9	15.0	15.4	14.0	17.6	15.7	18.3
Finland	29.2	27.9	29.0	26.6	27.0	28.5	30.5	28.3	29.2
Sweden	25.5	28.1	29.8	28.0	29.3	31.8	24.7	27.7	29.1
Southern	37.7	49.8	64.1	45.3	58.8	73.1	35.8	47.3	61.1
Cyprus	32.3	34.7	64.9	36.3	44.0	70.3	31.1	30.3	61.6
Greece	51.4	54.7	71.2	57.5	65.4	74.7	49.1	49.4	68.8
Italy	39.8	50.2	65.4	56.0	64.4	80.6	35.7	46.6	60.4
Portugal	32.7	42.1	49.3	26.9	38.3	42.3	34.6	43.8	53.7
Spain Paralle 15 to 64	32.8	50.1	64.0	32.6	55.1	70.0	32.9	48.7	61.8

People aged 15 to 64 years. n.a. not available. Source: Eurostat, 2016.

Table 10-28: Temporary employees by gender and age [% of total employees]

Tuble 10 20.								15 – 24 years 55 – 64 years				
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	13.5	13.3	13.6	2005 <b>14.5</b>	14.6	14.4	40.1	42.4	43.4	6.6	6.9	6.6
Anglo-Saxon	5.0	5.8	6.0	6.1	6.7	7.0	12.2	14.9	16.5	5.2	5.1	5.4
Ireland	3.1	8.9	9.2	4.3	10.2	9.4	11.6	30.1	33.9	2.3	6.6	5.9
Malta	3.6	4.2	6.6	5.9	7.0	9.3	10.8	13.9	19.0	n.a.	3.3	6.3
United Kingdom	5.1	5.6	5.8	6.2	6.4	6.8	12.3	13.8	15.2	5.4	5.0	5.4
Continental	13.2	13.9	13.9	14.2	15.2	14.9	51.0	53.1	52.9	4.9	6.1	5.6
Austria	9.2	9.8	9.2	8.8	8.9	9.2	34.5	37.0	35.1	3.3	3.0	2.9
Belgium	6.8	6.7	7.6	11.4	9.6	9.7	32.1	30.4	34.2	4.4	2.9	3.1
France	13.0	14.1	15.0	14.8	16.1	16.9	49.5	55.1	57.3	5.6	8.7	8.7
Germany	14.5	14.5	13.1	14.1	15.0	13.2	58.2	57.2	53.4	4.5	4.6	3.6
Luxembourg	4.9	6.2	7.1	5.8	8.3	9.2	29.3	36.5	45.4	n.a.	n.a.	4.6
Netherlands	14.1	16.9	20.2	16.9	19.8	22.0	41.7	48.3	55.5	5.9	6.8	6.0
Eastern	13.5	13.6	14.8	12.5	13.6	14.6	33.5	34.0	40.0	11.8	13.7	12.3
Bulgaria	6.6	4.9	5.6	6.1	3.9	4.9	13.9	9.3	14.5	7.8	4.3	4.5
Croatia	12.4	11.7	16.6	12.3	14.1	17.1	38.0	40.0	57.2	3.3	4.1	6.8
Czech Republic	6.9	6.8	8.4	9.2	9.8	11.3	18.3	22.5	32.3	12.9	11.4	7.9
Estonia	3.5	5.0	3.3	1.9	2.6	3.0	8.5	12.3	11.2	n.a.	1.9	1.3
Hungary	7.5	10.2	11.2	6.4	9.2	10.3	17.2	25.0	25.1	4.8	7.0	9.5
Latvia	11.2	9.4	4.3	6.2	5.2	2.4	17.8	13.3	8.4	4.9	7.3	3.4
Lithuania	7.6	3.3	3.6	3.4	1.7	2.0	13.1	7.6	8.5	n.a.	n.a.	n.a.
Poland	26.5	27.4	28.5	24.6	27.0	28.0	65.1	64.5	71.2	16.0	21.1	18.2
Romania	2.8	1.1	1.7	1.9	0.9	1.2	7.1	3.6	7.0	n.a.	n.a.	n.a.
Slovakia	5.0	5.5	9.0	4.8	5.8	8.5	12.6	17.1	28.2	10.1	5.6	7.0
Slovenia	15.4	15.2	16.0	19.1	19.2	17.1	62.5	69.6	72.7	8.7	8.9	8.5
Nordic	12.1	12.0	12.3	16.5	15.5	16.0	44.5	43.3	43.1	5.8	5.8	5.8
Denmark	8.4	8.1	8.2	11.3	8.8	9.0	26.9	21.1	21.3	4.4	3.6	3.5
Finland	12.9	12.3	12.3	20.0	18.4	18.2	44.1	43.0	42.5	6.3	7.5	6.7
Sweden	13.9	14.1	14.7	17.6	17.9	18.8	55.4	56.7	56.2	6.4	6.1	6.7
Southern	18.6	16.6	17.4	22.5	19.5	18.4	46.9	50.2	58.9	9.6	8.0	7.5
Cyprus	9.0	7.1	13.1	19.5	20.8	24.4	19.9	20.3	31.1	5.7	4.5	9.7
Greece	10.2	11.1	11.0	14.5	14.6	12.4	26.1	30.2	29.4	8.7	7.7	7.8
Italy	10.4	11.3	13.1	14.6	14.4	14.2	36.9	46.8	56.0	6.5	6.1	5.4
Portugal	18.6	22.2	21.6	20.4	23.5	21.1	46.2	56.4	63.0	9.0	9.6	10.5
Spain	31.8	23.6	23.6	35.6	26.1	24.6	66.3	58.4	69.1	14.1	10.2	9.5

<sup>§</sup> From 15 to 64 years. n.a. not available. Source: Eurostat, 2016.

Table 10-29: Low-wage earners by gender and age

	Mal		Fema	ıles <sup>§</sup>	Less 30 ye		50 yo and o		30 to 49 years	
	2006	2010	2006	2010	2006	2010	2006	2010	2006	2010
EU-28	12.6	13.3	21.9	21.0	40.9	30.7	13.5	14.3	14.1	13.5
Anglo-Saxon	15.1	16.7	28.3	27.3	49.8	40.5	18.4	18.2	14.4	14.9
Ireland	15.9	17.6	26.7	23.6	49.9	39.4	18.4	17.4	15.9	17.4
Malta	13.2	15.6	16.6	22.4	31.1	27.7	10.7	16.7	10.4	13.0
United Kingdom	15.0	16.7	28.5	27.6	50.0	40.6	18.5	18.3	14.4	14.7
Continental	10.5	11.1	19.3	19.2	36.7	27.6	11.5	12.4	11.8	11.3
Austria	6.8	8.2	25.3	24.8	29.6	24.3	10.9	12.5	11.5	11.9
Belgium	5.2	3.3	11.1	10.3	18.5	15.3	5.3	3.0	7.1	4.7
France	5.4	4.5	9.3	7.9	19.9	12.4	5.6	4.7	6.5	5.0
Germany	14.7	17.0	27.4	28.7	48.7	38.1	17.9	20.8	17.5	18.0
Luxembourg	7.9	9.3	22.8	20.2	31.7	22.7	9.3	9.2	11.8	11.0
Netherlands	15.5	15.3	20.4	21.2	58.8	46.1	7.1	8.5	8.0	8.0
Eastern	20.9	20.6	26.3	25.1	40.0	28.3	19.6	21.4	23.1	21.5
Bulgaria	18.3	22.5	19.5	21.6	40.2	27.7	9.7	19.9	22.7	21.4
Croatia	n.a.	15.7	n.a.	20.7	n.a.	26.3	n.a.	12.1	n.a.	18.2
Czech Republic	10.9	12.9	25.1	24.5	25.6	21.1	17.7	19.1	14.7	16.6
Estonia	15.0	15.5	29.8	30.1	20.5	21.3	29.6	31.2	17.7	19.1
Hungary	22.7	18.1	21.1	21.5	36.1	23.1	17.6	18.7	23.0	19.4
Latvia	29.5	26.7	32.1	28.7	31.7	28.6	32.7	28.6	29.0	26.9
Lithuania	27.7	24.5	30.4	29.4	33.2	28.0	28.8	28.3	28.5	26.3
Poland	21.8	21.8	28.0	26.8	47.1	31.3	21.3	23.8	23.0	21.8
Romania	26.0	25.5	27.9	25.8	44.3	32.7	18.8	20.5	28.6	25.6
Slovakia	12.1	14.6	24.9	23.7	23.5	20.9	18.7	19.8	17.1	18.0
Slovenia	15.6	15.3	23.5	19.3	33.6	24.3	17.5	14.3	18.6	16.4
Nordic	3.0	3.2	6.2	6.2	17.4	15.4	2.1	2.6	3.0	3.1
Denmark	6.4	5.4	12.4	9.8	30.9	27.8	3.4	3.7	5.6	5.6
Finland	2.5	3.3	6.8	8.0	14.8	13.2	3.7	4.7	3.9	4.2
Sweden	1.4	1.9	2.2	3.1	10.9	9.5	0.4	0.7	0.9	1.0
Southern	8.8	10.0	18.3	17.9	32.2	25.3	8.6	9.9	12.7	12.4
Cyprus	12.3	14.9	34.2	31.4	56.5	37.6	16.2	17.1	19.8	18.8
Greece	12.5	11.2	20.2	14.6	52.7	35.7	6.7	5.8	15.5	9.7
Italy	7.5	10.3	14.0	15.1	31.0	25.0	6.5	9.1	11.1	11.6
Portugal	15.4	10.2	26.4	22.1	42.0	25.0	15.2	12.8	19.7	14.2
Spain	8.0	9.2	21.2	21.0	26.2	23.3	10.2	11.0	12.5	13.6

Low-wage earners as a proportion of all employees (excluding apprentices). Company size: 10 employees or more.

<sup>§</sup> From 15 to 64 years. n.a. not available. Source: Eurostat, 2016.

Table 10-30: Low-wage earners by education

	Pre-primary, lower second	primary and ary education	secondary r	lary and post- non-tertiary ation	tertiary education		
	2006	2010	2006	2010	2006	2010	
EU-28	26.7	29.0	18.0	19.2	4.8	5.8	
Anglo-Saxon	44.9	34.4	28.0	30.7	6.4	11.5	
Ireland	32.0	30.9	27.4	25.6	12.9	12.9	
Malta	22.0	29.5	7.8	11.3	1.3	2.7	
United Kingdom	46.0	34.6	28.1	31.3	6.0	11.4	
Continental	27.9	34.2	12.2	13.2	3.2	2.4	
Austria	29.9	35.2	11.8	12.4	3.5	3.2	
Belgium	14.5	13.0	8.9	7.4	1.5	0.2	
France	14.5	11.9	7.1	6.5	2.4	2.8	
Germany	38.5	54.6	16.3	19.1	3.8	2.1	
Luxembourg	26.8	33.7	12.2	9.8	1.1	0.7	
Netherlands	36.5	37.1	13.8	15.7	3.9	3.8	
Eastern	40.0	44.5	25.6	28.2	5.5	5.0	
Bulgaria	26.1	40.7	23.9	27.9	5.0	5.7	
Croatia	n.a.	35.5	n.a.	21.4	n.a.	2.6	
Czech Republic	39.1	40.9	17.0	19.2	1.8	2.2	
Estonia	40.0	44.1	27.8	30.9	8.8	7.0	
Hungary	36.7	40.8	24.9	21.6	3.8	2.1	
Latvia	45.8	42.6	37.8	35.5	13.2	12.0	
Lithuania	44.2	44.1	39.0	39.4	14.8	13.3	
Poland	39.3	44.9	25.5	31.6	5.4	6.1	
Romania	43.9	49.4	30.2	31.9	6.8	5.0	
Slovakia	52.2	51.5	18.6	20.9	3.4	3.3	
Slovenia	39.3	40.0	18.4	18.3	2.9	1.5	
Nordic	8.4	9.0	4.7	5.9	1.6	2.2	
Denmark	17.8	14.8	7.1	9.3	3.4	2.9	
Finland	8.2	11.5	6.6	8.4	1.4	1.7	
Sweden	3.1	4.2	2.2	2.6	0.8	2.1	
Southern	18.5	21.6	11.4	12.1	4.8	3.5	
Cyprus	33.9	33.9	28.5	33.6	8.0	4.5	
Greece	20.7	18.3	21.6	19.2	8.1	4.3	
Italy	16.1	20.9	7.8	8.5	3.6	2.6	
Portugal	30.8	25.3	12.0	10.1	1.3	1.0	
Spain	18.0	22.4	13.0	15.3	6.4	5.0	

ISCED97, Level 0 - 2: Pre-primary, primary and lower secondary education; Level 3 and 4: Upper secondary and post-

secondary non-tertiary education; Level 5 and 6: First and second stage of tertiary education.

Low-wage earners as a proportion of all employees (excluding apprentices). Company size: 10 employees or more.

Table 10-31: Long-term unemployment rates by age

Tuble 10 51:	long term unemployment rates by age											
	15	– 64 yea	rs	55	– 64 yea	ırs	15 – 24 years			25 – 54 years		
	2005	2010	2014	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	46.2	40.0	49.6	62.9	54.1	63.2	30.9	28.6	35.6	49.7	41.9	51.7
Anglo-Saxon	22.0	33.7	37.3	39.3	43.6	50.0	13.4	24.9	28.7	26.0	37.9	40.9
Ireland	33.4	49.1	59.2	46.4	56.0	75.0	22.1	42.0	39.4	38.2	50.9	62.2
Malta	48.6	45.0	46.9	n.a.	49.6	59.0	37.4	29.2	27.0	56.0	52.6	54.4
United Kingdom	21.0	32.5	35.7	38.8	42.7	48.1	12.6	23.6	27.9	25.0	36.9	39.3
Continental	46.1	42.0	43.3	66.5	60.2	62.4	26.7	26.3	25.6	49.3	43.6	44.4
Austria	25.5	25.5	27.2	56.0	56.3	51.0	13.4	17.0	13.5	28.1	26.6	29.3
Belgium	51.7	48.8	49.9	74.8	80.0	71.8	27.2	30.1	34.4	58.6	52.4	52.3
France	40.6	39.9	44.2	63.3	56.6	62.8	23.9	29.9	30.5	44.6	41.7	45.7
Germany	53.0	47.4	44.3	69.8	62.4	62.7	31.8	26.9	23.0	54.4	48.4	44.2
Luxembourg	26.4	29.3	27.3	n.a.	n.a.	58.9	n.a.	25.7	n.a.	28.9	29.5	28.4
Netherlands	40.2	27.5	39.4	62.5	52.1	59.5	17.7	11.6	19.2	46.5	30.5	42.7
Eastern	56.0	39.3	46.6	65.4	47.4	54.2	44.4	31.1	35.1	59.4	41.1	48.6
Bulgaria	59.8	46.1	60.3	67.2	53.1	65.2	48.8	40.7	49.4	61.8	46.1	61.0
Croatia	58.5	56.3	58.5	79.4	71.2	68.0	43.0	49.5	49.9	63.6	57.5	60.2
Czech Republic	53.0	41.0	43.6	58.0	39.5	48.8	38.3	31.7	27.8	57.0	43.9	46.6
Estonia	54.2	45.2	45.2	58.7	41.4	61.1	34.7	37.1	29.7	59.3	48.4	46.2
Hungary	45.1	49.0	47.4	56.4	53.5	62.4	34.9	38.9	32.7	47.3	50.7	49.1
Latvia	44.5	45.1	43.0	50.9	50.9	45.5	22.2	33.1	24.1	49.4	47.9	46.7
Lithuania	52.9	41.7	44.6	69.4	46.7	57.1	n.a.	30.3	22.6	57.0	43.7	46.9
Poland	57.7	31.1	42.7	68.5	41.8	53.2	44.7	20.5	31.1	61.7	33.8	44.8
Romania	56.3	34.6	41.1	61.9	44.1	40.3	49.7	32.6	36.4	59.0	34.5	43.0
Slovakia	72.0	64.0	70.2	80.7	71.1	77.3	60.3	54.7	57.2	74.9	66.0	72.3
Slovenia	47.3	43.3	54.5	65.3	60.7	68.7	37.0	33.8	37.5	50.1	44.5	56.0
Nordic	24.6	20.5	21.6	49.2	36.7	38.6	7.0	7.1	6.5	27.2	24.7	26.5
Denmark	23.4	20.2	25.2	48.5	36.8	42.1	n.a.	6.4	8.9	24.5	23.9	29.9
Finland	25.8	24.0	22.4	50.0	43.5	43.5	7.0	7.5	5.0	30.0	28.0	25.7
Sweden	n.a.	18.6	19.0	n.a.	32.8	33.7	n.a.	7.3	5.9	n.a.	23.3	24.9
Southern	40.7	43.9	59.1	54.7	57.7	70.8	32.7	36.8	50.8	42.3	44.5	59.4
Cyprus	23.4	20.3	47.7	47.0	24.3	60.0	11.9	16.9	29.8	25.7	21.1	51.3
Greece	51.8	44.6	73.4	52.8	52.0	81.2	45.1	35.4	60.1	54.0	46.2	74.8
Italy	49.7	48.4	61.4	56.4	58.9	67.8	45.3	44.5	59.7	51.0	49.0	61.3
Portugal	48.2	52.2	59.5	67.6	72.7	78.9	31.5	30.2	36.3	50.8	54.1	61.8
Spain	24.4	36.6	52.8	49.9	54.7	70.7	13.4	29.2	40.5	25.9	36.6	52.8
		10				C . l						

Long-term unemployment (12 months or more) as a percentage of the total unemployment. n.a. not available

Table 10-32: Long-term unemployment rates by gender

		Males			Females	
	2005	2010	2014	2005	2010	2014
EU-28	45.8	40.6	50.1	46.6	39.3	49.1
Anglo-Saxon	26.3	38.3	41.9	15.6	26.7	31.5
Ireland	41.4	53.9	65.3	21.0	38.6	49.1
Malta	54.2	50.0	52.3	39.3	36.1	36.7
United Kingdom	25.1	37.1	40.2	15.1	25.8	30.2
Continental	46.0	43.0	44.7	46.2	40.7	41.6
Austria	26.0	28.0	28.3	24.9	22.4	25.8
Belgium	50.6	49.6	51.9	52.7	47.8	47.3
France	39.5	41.4	45.3	41.6	38.2	43.0
Germany	53.0	48.1	46.2	53.0	46.4	41.9
Luxembourg	33.8	32.3	26.9	20.5	26.5	27.8
Netherlands	43.1	27.5	39.7	37.0	27.4	39.1
Eastern	55.9	39.6	47.2	55.9	38.8	45.8
Bulgaria	58.8	46.0	62.3	61.1	46.2	57.4
Croatia	56.4	53.4	58.2	60.6	59.3	58.8
Czech Republic	52.2	40.1	43.9	53.7	42.0	43.3
Estonia	49.8	48.2	50.4	60.1	41.0	38.9
Hungary	46.5	49.4	47.9	43.5	48.5	46.8
Latvia	48.1	48.2	44.8	40.8	41.0	40.8
Lithuania	51.4	42.6	44.3	54.3	40.4	45.0
Poland	56.1	30.8	42.8	59.3	31.6	42.6
Romania	59.0	36.8	41.8	52.3	31.1	40.0
Slovakia	72.4	63.1	72.9	71.6	65.0	67.1
Slovenia	48.4	45.0	55.0	46.3	41.2	54.0
Nordic	26.5	22.9	22.9	22.7	17.4	19.9
Denmark	24.1	21.9	25.9	22.7	17.8	24.4
Finland	29.0	27.8	24.4	22.6	19.1	19.8
Sweden	n.a.	20.7	20.4	n.a.	16.2	17.4
Southern	37.4	42.6	58.3	43.3	45.3	60.0
Cyprus	19.2	20.8	48.5	26.9	19.7	46.6
Greece	42.1	38.3	72.7	57.5	49.8	74.2
Italy	47.6	47.2	60.2	51.6	49.8	62.7
Portugal	47.5	51.7	60.6	48.9	52.7	58.4
Spain	20.5	36.0	52.0	27.6	37.3	53.7

People from 15 to 64 years. n.a. not available. Source: Eurostat, 2016.

Table 10-33: Participation tax rates

	Two-earr	ner married Iren, 33% o	couple, 2		er married ren, 67% o		Two-earner married couple, 2 children, 100% of AW			
	2005	2010	2013	2005	2010	2013	2005	2010	2013	
EU-28	76.9	78.8	79.8	71.7	72.8	72.5	68.7	68.7	68.2	
Anglo-Saxon	51.6	57.9	59.5	41.9	44.9	46.2	39.0	41.8	41.5	
Ireland	80.9	75.1	75.5	52.7	62.9	64.7	45.2	54.7	53.5	
Malta	77.0	76.2	64.7	50.1	48.9	40.7	46.6	41.7	37.1	
United Kingdom	49.4	56.6	58.3	41.1	43.6	44.9	38.6	40.9	40.7	
Continental	85.9	83.0	83.6	83.1	79.2	79.1	81.2	79.2	79.7	
Austria	92.3	86.7	95.7	74.9	77.2	74.8	75.4	76.8	75.4	
Belgium	72.0	73.2	74.5	75.5	79.5	79.1	68.6	71.6	71.2	
France	87.7	87.2	89.0	79.0	74.8	75.0	75.3	75.2	75.9	
Germany	90.3	86.0	85.6	89.9	85.2	85.8	89.5	84.6	85.6	
Luxembourg	86.9	83.1	83.2	86.3	86.1	86.5	87.6	87.7	88.2	
Netherlands	62.5	56.9	52.2	73.7	67.3	65.2	72.4	73.9	73.4	
Eastern	70.7	66.1	64.8	70.1	67.6	67.0	63.3	60.3	60.3	
Bulgaria	n.a.	80.9	81.6	n.a.	80.9	81.6	n.a.	80.9	81.6	
Croatia	n.a.	n.a.	83.8	n.a.	n.a.	88.9	n.a.	n.a.	80.5	
Czech Republic	85.7	97.5	84.8	74.8	86.4	79.4	73.8	82.7	84.0	
Estonia	64.3	64.3	63.7	64.3	62.7	63.7	64.3	62.7	63.7	
Hungary	73.0	74.8	88.4	62.4	79.9	78.8	60.5	67.6	64.2	
Latvia	83.8	87.0	86.4	87.8	89.9	89.4	89.1	90.8	90.4	
Lithuania	85.4	107.7	102.2	80.7	77.8	71.4	79.1	61.0	56.7	
Poland	68.4	56.5	53.3	71.6	65.2	64.3	59.5	53.7	53.1	
Romania	n.a.	57.2	50.6	n.a.	51.7	48.8	n.a.	47.1	45.2	
Slovakia	38.4	33.4	43.9	47.4	46.8	50.1	49.8	49.5	51.7	
Slovenia	80.0	78.1	84.4	84.1	86.9	93.3	76.1	82.1	79.3	
Nordic	94.9	90.3	90.3	85.2	78.0	76.9	73.9	66.5	66.4	
Denmark	123.9	122.0	122.6	91.5	89.6	89.7	75.5	73.7	73.8	
Finland	81.6	79.6	78.6	75.3	71.9	73.6	71.8	70.5	73.6	
Sweden	85.2	77.6	78.0	87.1	74.7	71.3	74.2	60.1	58.0	
Southern	85.0	89.4	94.4	72.2	77.3	78.6	73.5	72.0	72.1	
Cyprus	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Greece	61.2	81.3	80.1	37.1	44.5	47.3	34.3	37.7	43.2	
Italy	66.1	76.7	91.7	71.3	79.3	81.5	73.6	70.6	71.1	
Portugal	110.6	103.5	102.8	84.1	82.8	87.2	88.2	88.0	93.7	
Spain	110.1	104.4	99.6	79.3	81.2	80.3	79.7	78.4	75.3	

Participation Tax Rates for a transition into full-time work for persons receiving unemployment benefits at the initial level. Participation tax rates measure the extent to which taxes and benefits reduce the financial gain of moving into work. The estimates here relate to the situation of a person who has just become unemployed and receives unemployment benefits (following any waiting period) based on previous earnings equal to earnings in the new job. No social assistance "top-ups" or cash housing assistance are assumed to be available in either the in-work or out of work situation. Any benefits payable on moving into employment are assumed to be paid. The percentage of AW relates to the earnings from full-time employment of the individual moving into work. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be inactive with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Calculations for families with children assume two children aged 4 and 6 and neither childcare benefits nor childcare costs are considered.

n.a. not available. Source: OECD, 2016. Table 10-34: Unemployment trap single person

	previous 100%, previous 100%, previous 100%,								
		rnings 100			arnings 67 <sup>9</sup>			arnings 33 <sup>o</sup>	
	2005	2010	2013	2005	2010	2013	2005	2010	2013
EU-28	69.6	68.8	69.0	86.0	85.2	84.8	134.5	132.8	129.8
Anglo-Saxon	56.7	54.4	52.7	68.4	65.6	62.7	76.1	76.3	74.2
Ireland	59.6	65.0	60.0	74.2	78.2	72.8	134.5	142.7	122.2
Malta	54.4	51.1	51.8	60.3	58.6	57.7	102.0	98.8	94.3
United Kingdom	56.5	53.6	52.1	68.1	64.8	62.0	71.9	71.4	70.6
Continental	76.5	76.2	76.4	91.9	92.5	92.6	133.8	128.7	129.0
Austria	69.9	69.9	70.5	81.8	82.0	82.4	128.7	125.7	123.3
Belgium	75.6	79.3	80.6	85.2	91.0	92.9	114.1	123.3	126.2
France	76.9	75.8	76.1	97.5	97.5	97.4	160.5	139.3	139.5
Germany	77.1	75.0	75.1	88.3	87.7	87.7	117.6	120.3	120.4
Luxembourg	88.6	88.5	89.4	112.6	111.5	110.6	174.3	169.5	164.4
Netherlands	76.3	84.3	84.1	97.3	102.8	101.7	126.7	132.5	132.4
Eastern	65.4	64.3	63.5	80.5	81.2	79.8	115.2	116.7	112.4
Bulgaria	n.a.	80.9	81.6	n.a.	110.4	111.2	n.a.	202.7	194.7
Croatia	n.a.	n.a.	79.9	n.a.	n.a.	99.1	n.a.	n.a.	170.3
Czech Republic	62.0	76.9	78.1	78.4	95.4	95.6	123.8	144.6	143.7
Estonia	64.3	62.7	63.7	83.0	82.2	83.1	141.4	142.9	143.9
Hungary	60.5	67.6	64.5	62.4	81.9	79.2	95.0	126.8	122.2
Latvia	89.1	90.8	89.8	117.4	119.4	118.3	205.6	208.8	207.1
Lithuania	79.1	55.7	50.4	100.4	69.8	61.5	166.7	114.6	97.2
Poland	67.1	64.7	64.1	83.0	81.6	80.7	102.8	89.8	85.3
Romania	n.a.	51.0	46.3	n.a.	61.7	54.6	n.a.	96.2	81.4
Slovakia	46.8	46.7	47.9	67.4	67.2	69.1	139.9	134.8	139.1
Slovenia	77.0	82.0	78.3	94.1	101.5	95.9	138.7	156.7	138.5
Nordic	73.6	66.2	67.7	89.5	79.9	82.2	125.3	117.1	112.0
Denmark	77.8	75.7	75.2	91.5	89.6	89.2	141.6	139.7	139.5
Finland	68.4	67.1	79.9	80.6	78.9	97.3	98.8	106.3	140.1
Sweden	74.2	60.1	56.4	93.4	74.7	69.5	131.0	110.0	80.1
Southern	70.2	68.4	68.9	88.0	84.9	82.8	147.4	139.4	134.3
Cyprus	61.7	n.a.	n.a.	86.2	n.a.	n.a.	168.4	n.a.	n.a.
Greece	50.3	45.8	45.9	55.5	51.5	50.5	70.5	84.4	80.4
Italy	71.6	70.5	72.9	88.6	86.1	85.5	144.4	134.2	134.5
Portugal	86.8	80.6	81.8	113.0	103.2	100.9	208.0	187.8	176.3
Spain	69.5	68.4	66.1	89.5	87.2	82.9	155.8	148.3	137.3

Previous earnings as % of average; earnings if taking up work as % of average.

Table 10-35: Unemployment trap for two-earner couples with two children

Tuble 10 55.		evious 100 rnings 100	%,	pr	evious 100 arnings 67	%,	previous 100%, earnings 33%		
	2005	2010	2013	2005	2010	2013	2005	2010	2013
EU-28	69.1	68.9	68.5	85.4	85.7	84.2	138.3	139.9	134.4
Anglo-Saxon	38.8	37.9	35.2	39.4	40.9	36.9	46.2	47.3	41.9
Ireland	45.6	52.0	48.6	0.4	0.5	0.5	0.7	0.8	0.7
Malta	45.1	40.0	37.1	0.0	0.0	0.0	0.1	0.1	0.1
United Kingdom	38.3	36.9	34.3	4.7	4.9	4.5	5.3	5.5	4.9
Continental	82.1	81.2	80.2	100.4	100.2	98.6	156.8	158.8	154.2
Austria	77.6	79.1	77.7	1.5	1.6	1.6	2.5	2.6	2.4
Belgium	68.7	101.2	74.6	1.6	2.7	1.9	2.0	4.1	2.4
France	76.3	75.8	75.8	12.4	12.5	12.6	20.3	20.4	20.2
Germany	90.3	84.6	86.3	18.0	16.6	16.7	27.6	25.7	26.0
Luxembourg	87.8	88.0	88.6	0.1	0.1	0.1	0.2	0.2	0.2
Netherlands	73.1	73.6	73.1	3.1	2.9	2.8	4.7	4.7	4.6
Eastern	61.6	59.7	60.1	74.6	74.5	74.2	101.6	105.0	103.0
Bulgaria	n.a.	80.9	91.9	0.0	1.6	1.6	0.0	3.0	2.8
Croatia	n.a.	n.a.	85.4	0.0	0.0	0.9	0.0	0.0	1.6
Czech Republic	72.4	81.5	81.1	1.9	2.2	2.2	3.2	3.9	3.9
Estonia	64.3	62.7	63.7	0.2	0.2	0.2	0.4	0.4	0.4
Hungary	60.5	67.6	64.5	1.3	1.6	1.5	1.9	2.5	2.4
Latvia	89.1	90.8	89.8	0.5	0.5	0.5	0.9	0.9	0.8
Lithuania	79.1	55.7	50.4	0.7	0.4	0.4	1.1	0.7	0.6
Poland	55.8	53.7	52.9	5.1	4.9	4.8	5.3	4.3	3.9
Romania	n.a.	43.9	41.4	0.0	2.0	1.8	0.0	2.9	2.5
Slovakia	54.9	54.9	54.9	0.9	0.9	0.8	1.5	1.6	1.7
Slovenia	79.9	84.8	78.3	0.4	0.4	0.4	0.6	0.7	0.6
Nordic	74.3	66.5	67.9	90.8	81.2	83.3	146.7	130.9	134.6
Denmark	76.8	73.7	73.4	1.0	1.0	1.0	1.5	1.5	1.5
Finland	71.8	70.5	82.7	0.9	0.9	1.1	1.5	1.5	1.8
Sweden	74.2	60.1	56.4	1.7	1.4	1.3	2.8	2.3	2.1
Southern	72.9	72.5	73.4	91.9	90.7	89.2	156.0	153.3	147.7
Cyprus	68.7	n.a.	n.a.	0.1	0.0	0.0	0.3	0.0	0.0
Greece	34.3	37.7	41.3	0.8	1.0	1.0	1.4	1.8	1.6
Italy	71.5	71.0	74.2	10.2	10.0	10.3	15.9	15.6	16.2
Portugal	92.8	92.1	95.0	2.6	2.5	2.5	4.5	4.4	4.0
Spain	79.7	78.4	75.1	9.2	9.4	8.8	16.8	17.0	15.6

Previous earnings as % of average; earnings if taking up work as % of average.

n.a. not available.

Table 10-36: Gini coefficients of and correlation between income and wealth

	Gini coefficient Net wealth	Gini coefficient Total gross income	Correlation net wealth – total gross income
EU-28	0.68	0.42	0.33
Anglo-Saxon	0.60	0.37	0.19
Ireland	n.a.	n.a.	n.a.
Malta	0.60	0.37	0.19
United Kingdom	n.a.	n.a.	n.a.
Continental	0.71	0.41	0.37
Austria	0.76	0.42	0.27
Belgium	0.61	0.48	0.18
France	0.68	0.38	0.44
Germany	0.76	0.43	0.36
Luxembourg	0.66	0.42	0.47
Netherlands	0.65	0.32	0.25
Eastern	0.47	0.39	0.31
Bulgaria	n.a.	n.a.	n.a.
Croatia	n.a.	n.a.	n.a.
Czech Republic	n.a.	n.a.	n.a.
Estonia	n.a.	n.a.	n.a.
Hungary	n.a.	n.a.	n.a.
Latvia	n.a.	n.a.	n.a.
Lithuania	n.a.	n.a.	n.a.
Poland	n.a.	n.a.	n.a.
Romania	n.a.	n.a.	n.a.
Slovakia	0.45	0.36	0.29
Slovenia	0.53	0.48	0.38
Nordic	0.66	0.38	0.59
Denmark	n.a.	n.a.	n.a.
Finland	0.66	0.38	0.59
Sweden	n.a.	n.a.	n.a.
Southern	0.60	0.41	0.39
Cyprus	0.70	0.45	0.42
Greece	0.56	0.40	0.42
Italy	0.61	0.40	0.48
Portugal	0.67	0.45	0.48
Spain	0.58	0.41	0.25

n.a. not available. Source: Arrondel et al., 2014.

Table 10-37: Women's share of parental leave by duration

Table 10-57. Wollie	ii s siiare or paren	rear e by c		
	3 months or less	From 3 to 6 months	From 6 to 12 months	Over 12 months
EU-28	0.63	0.89	0.95	0.97
Anglo-Saxon	0.54	0.98	1.00	0.97
Ireland	n.a.	n.a.	n.a.	n.a.
Malta	n.a.	n.a.	n.a.	1.00
United Kingdom	0.54	0.98	1.00	0.98
Continental	0.58	0.87	0.93	0.89
Austria	n.a.	0.36	0.88	0.99
Belgium	0.84	0.96	n.a.	n.a.
France	n.a.	1.00	0.98	0.96
Germany	0.49	0.80	0.95	0.98
Luxembourg	n.a.	0.86	n.a.	n.a.
Netherlands	0.86	0.93	0.70	0.69
Eastern	0.86	0.98	0.96	0.90
Bulgaria	n.a.	n.a.	0.95	0.97
Croatia	0.54	0.95	n.a.	1.00
Czech Republic	0.52	1.00	0.94	0.99
Estonia	n.a.	n.a.	0.85	0.99
Hungary	1.00	1.00	0.97	0.98
Latvia	0.79	n.a.	0.91	1.00
Lithuania	n.a.	n.a.	0.96	0.99
Poland	0.95	0.99	0.97	0.98
Romania	n.a.	n.a.	0.96	0.95
Slovakia	n.a.	n.a.	0.93	1.00
Slovenia	n.a.	0.79	0.97	1.00
Nordic	0.26	0.57	0.86	0.78
Denmark	0.34	0.76	0.93	n.a.
Finland	0.29	0.75	0.88	0.89
Sweden	0.21	0.35	0.80	0.98
Southern	0.87	0.98	0.99	0.98
Cyprus	n.a.	n.a.	n.a.	n.a.
Greece	0.95	0.93	0.99	n.a.
Italy	0.85	1.00	1.00	0.99
Portugal	0.66	0.97	n.a.	n.a.
Spain	0.92	0.98	0.98	0.98

Table 10-38: Part-time employment of people with children less than 6 years

		Total	Males				Females		
	2005	2010	2013	2005	2010	2013	2005	2010	2013
EU-28	18.6	19.6	20.2	3.9	4.9	5.6	40.0	39.1	38.7
Anglo-Saxon	29.8	29.4	28.7	4.6	6.8	7.2	62.7	57.6	55.7
Ireland	n.a.	20.5	20.2	n.a.	7.3	8.6	n.a.	36.4	34.3
Malta	8.5	14.4	18.1	n.a.	n.a.	3.8	30.1	37.3	37.9
United Kingdom	29.9	30.2	29.4	4.6	6.8	7.1	62.9	59.3	57.3
Continental	25.9	27.4	28.2	5.0	6.1	6.6	56.4	55.6	54.3
Austria	27.9	31.9	35.2	3.8	5.5	7.6	59.5	64.1	67.1
Belgium	23.4	24.0	23.2	4.2	6.2	6.1	46.3	44.3	42.7
France	17.7	18.5	18.4	3.4	4.2	5.1	36.3	35.6	33.6
Germany	28.1	30.0	32.2	4.8	5.9	6.0	66.1	65.4	65.5
Luxembourg	20.8	21.1	20.8	n.a.	n.a.	2.7	48.1	45.9	40.9
Netherlands	47.4	49.8	47.4	12.8	14.7	15.5	89.3	88.2	83.6
Eastern	6.5	6.5	5.8	4.2	3.7	3.1	11.4	11.9	10.8
Bulgaria	2.0	2.9	2.0	n.a.	n.a.	n.a.	2.9	n.a.	n.a.
Croatia	4.5	4.3	2.9	2.5	3.1	1.9	7.0	5.8	4.1
Czech Republic	5.7	7.0	7.0	0.5	0.8	1.0	18.4	22.2	18.9
Estonia	5.6	8.9	8.7	n.a.	3.1	4.1	12.7	17.1	15.4
Hungary	3.8	5.0	6.7	1.1	2.2	2.5	9.9	11.3	15.3
Latvia	8.0	9.7	5.0	3.9	6.8	2.0	14.0	12.7	8.5
Lithuania	6.1	6.2	6.4	n.a.	n.a.	4.3	9.3	7.6	8.5
Poland	7.8	6.0	5.5	3.6	2.3	1.8	14.1	11.3	10.5
Romania	9.6	9.8	6.8	9.1	9.1	6.9	10.4	10.7	6.6
Slovakia	1.2	3.4	5.6	n.a.	1.7	3.5	3.0	7.0	9.8
Slovenia	3.9	7.4	8.8	1.6	2.0	3.1	6.4	12.9	15.3
Nordic	8.2	18.9	17.2	2.5	6.9	5.5	16.2	31.0	30.0
Denmark	n.a.	16.8	13.7	n.a.	6.8	4.8	n.a.	22.1	23.1
Finland	8.2	10.2	9.6	2.5	3.7	3.0	16.2	19.5	19.0
Sweden	n.a.	25.1	23.5	n.a.	8.7	7.3	n.a.	42.8	40.2
Southern	13.0	13.8	16.4	2.4	3.0	5.8	30.2	29.5	30.6
Cyprus	5.9	7.0	10.3	n.a.	1.9	6.1	12.5	12.9	14.9
Greece	4.4	5.7	7.5	1.1	2.2	4.9	10.2	11.2	11.6
Italy	15.4	16.3	18.7	2.7	3.3	5.5	36.9	37.1	37.7
Portugal	5.5	4.2	5.8	1.7	1.9	3.5	9.8	6.8	8.1
Spain	13.8	14.8	17.9	2.4	3.0	6.8	31.5	29.6	31.1

People aged 20 to 49. n.a. not available. Source: Eurostat, 2016.

Table 10-39: Employment rates of native and foreign-born people

	Total	Native-born	Foreign-born
EU-28	n.a.	n.a.	n.a.
Anglo-Saxon	71.7	73.7	69.3
Ireland	n.a.	n.a.	n.a.
Malta	62.1	61.8	64.9
United Kingdom	71.8	73.8	69.3
Continental	64.7	66.0	58.2
Austria	71.1	72.6	64.9
Belgium	61.9	63.5	53.9
France	64.3	65.6	58.0
Germany	n.a.	n.a.	n.a.
Luxembourg	66.2	61.2	71.4
Netherlands	n.a.	n.a.	n.a.
Eastern	62.0	62.0	64.8
Bulgaria	60.8	60.8	58.2
Croatia	54.6	55.0	52.0
Czech Republic	69.0	68.9	70.7
Estonia	70.2	70.4	69.2
Hungary	61.3	61.2	69.2
Latvia	66.6	66.6	66.7
Lithuania	65.1	65.1	70.4
Poland	61.0	61.0	64.3
Romania	61.2	61.3	:
Slovakia	60.7	60.7	63.9
Slovenia	64.5	64.9	60.6
Nordic	72.5	74.2	64.8
Denmark	n.a.	n.a.	n.a.
Finland	68.5	69.0	63.6
Sweden	74.9	77.2	65.4
Southern	55.9	56.2	56.6
Cyprus	62.3	60.4	68.6
Greece	49.4	49.2	50.3
Italy	55.7	55.2	59.1
Portugal	62.6	62.2	66.8
Spain	56.1	57.6	52.3

Data from 2014. People aged 15 to 64.

Table 10-40: Corruption Perceptions Index and Shadow Economy

	Corrupti	on Perceptions	Index	Shadow I	w Economy as % of GDP		
	2013	2014	2015	2005	2010	2014	
EU-28	n.a.	n.a.	n.a.	21.8	19.9	18.6	
Anglo-Saxon	75.6	77.6	80.4	12.3	10.9	9.8	
Ireland	72.0	74.0	75.0	14.8	13.0	11.8	
Malta	56.0	55.0	56.0	26.9	26.0	24.0	
United Kingdom	76.0	78.0	81.0	12.0	10.7	9.6	
Continental	75.4	75.3	77.1	14.4	12.4	11.2	
Austria	69.0	72.0	76.0	10.3	8.2	7.8	
Belgium	75.0	76.0	77.0	20.1	17.4	16.1	
France	71.0	69.0	70.0	13.8	11.3	10.8	
Germany	78.0	79.0	81.0	15.0	13.5	11.6	
Luxembourg	80.0	82.0	81.0	9.9	8.4	8.1	
Netherlands	83.0	83.0	87.0	12.0	10.0	9.2	
Eastern	52.3	53.3	54.7	27.5	25.6	23.8	
Bulgaria	41.0	43.0	41.0	34.4	32.6	31.0	
Croatia	48.0	48.0	51.0	31.5	29.8	28.0	
Czech Republic	48.0	51.0	56.0	18.5	16.7	15.3	
Estonia	68.0	69.0	70.0	30.2	29.3	27.1	
Hungary	54.0	54.0	51.0	24.5	23.3	21.6	
Latvia	53.0	55.0	55.0	29.5	27.3	24.7	
Lithuania	57.0	58.0	61.0	31.1	29.7	27.1	
Poland	60.0	61.0	62.0	27.1	25.4	23.5	
Romania	43.0	43.0	46.0	32.2	29.8	28.1	
Slovakia	47.0	50.0	51.0	17.6	16.4	14.6	
Slovenia	57.0	58.0	60.0	26.0	24.3	23.5	
Nordic	89.5	88.9	89.8	17.0	14.5	13.2	
Denmark	91.0	92.0	91.0	16.5	14.0	12.8	
Finland	89.0	89.0	90.0	16.6	14.0	12.9	
Sweden	89.0	87.0	89.0	17.5	15.0	13.6	
Southern	50.2	50.8	50.8	23.3	21.1	20.0	
Cyprus	63.0	63.0	61.0	28.1	26.2	25.7	
Greece	40.0	43.0	46.0	27.6	25.4	23.3	
Italy	43.0	43.0	44.0	24.4	21.8	20.8	
Portugal	62.0	63.0	63.0	21.2	19.2	18.7	
Spain	59.0	60.0	58.0	21.3	19.4	18.5	

n.a. not available.
Source: Transparency International, 2016 and Schneider, 2016.

Table 10-41: Gini coefficient and reduction of income inequality by social transfers

		ent before socia nsions excluded			Reduction by social transfers (pensions excluded) in %			
	2005	2010	2014	2005	2010	2014		
EU-28	n.a.	36.2	36.5	n.a.	-15.7	-15.3		
Anglo-Saxon	42.8	42.3	40.4	-19.6	-22.5	-21.9		
Ireland	41.8	46.8	45.6	-23.7	-34.4	-32.7		
Malta	30.2	33.0	32.4	-10.6	-13.3	-14.5		
United Kingdom	42.9	42.0	40.1	-19.3	-21.7	-21.2		
Continental	33.8	35.5	35.6	-20.6	-18.6	-17.8		
Austria	32.5	34.4	33.9	-19.1	-17.7	-18.6		
Belgium	37.7	34.8	34.5	-25.7	-23.6	-24.9		
France	34.3	36.3	35.1	-19.2	-17.9	-16.8		
Germany	33.1	35.9	37.1	-21.1	-18.4	-17.3		
Luxembourg	32.1	34.9	35.5	-17.4	-20.1	-19.2		
Netherlands	33.7	31.8	32.3	-20.2	-19.8	-18.9		
Eastern	38.1	34.7	34.7	-16.0	-12.9	-11.2		
Bulgaria	n.a.	35.9	38.0	n.a.	-7.5	-6.8		
Croatia	n.a.	37.0	36.5	n.a.	-14.6	-17.3		
Czech Republic	32.5	29.8	29.6	-20.0	-16.4	-15.2		
Estonia	37.9	35.3	39.2	-10.0	-11.3	-9.2		
Hungary	36.5	32.9	34.6	-24.4	-26.7	-19.4		
Latvia	39.4	39.0	38.5	-8.1	-7.9	-7.8		
Lithuania	39.9	42.4	39.4	-9.0	-12.7	-11.2		
Poland	41.1	34.7	34.0	-13.4	-10.4	-9.4		
Romania	n.a.	37.2	37.7	n.a.	-10.5	-8.0		
Slovakia	31.7	30.0	30.0	-17.4	-13.7	-13.0		
Slovenia	30.7	29.8	31.0	-22.5	-20.1	-19.4		
Nordic	34.6	34.3	34.9	-29.9	-26.5	-25.2		
Denmark	35.8	38.0	38.2	-33.2	-29.2	-27.5		
Finland	35.5	33.9	34.1	-26.8	-25.1	-24.9		
Sweden	33.3	32.4	33.4	-29.7	-25.6	-24.0		
Southern	34.9	35.6	37.1	-5.3	-8.3	-9.4		
Cyprus	31.0	33.5	37.5	-7.4	-10.1	-7.2		
Greece	34.7	34.9	37.0	-4.3	-5.7	-6.8		
Italy	34.1	33.7	34.8	-4.1	-5.9	-6.9		
Portugal	41.3	38.3	38.7	-7.7	-12.0	-10.9		
Spain	34.4	37.7	39.9	-6.4	-11.1	-13.0		

Table 10-42: Income quintile share ratio by age

rusic 10 12. meos	Income o	quintile share ra e less than 65 y	atio for		Income quintile share ratio for people 65 years and over			
	2005	2010	2014	2005	2010	2014		
EU-28	n.a.	5.1	5.5	n.a.	4.0	4.1		
Anglo-Saxon	5.9	5.4	5.2	4.4	4.3	4.2		
Ireland	5.1	4.8	4.8	3.4	4.0	4.1		
Malta	3.9	4.4	4.2	3.8	3.7	3.2		
United Kingdom	6.0	5.5	5.2	4.5	4.3	4.2		
Continental	3.9	4.4	4.7	3.8	4.0	4.2		
Austria	3.8	4.4	4.2	3.9	4.2	4.0		
Belgium	4.1	3.9	3.9	3.0	3.7	3.0		
France	3.9	4.4	4.2	4.5	4.4	4.5		
Germany	3.8	4.7	5.4	3.5	3.8	4.2		
Luxembourg	4.0	4.3	4.5	3.2	3.2	3.7		
Netherlands	4.1	3.8	3.9	3.3	3.1	3.4		
Eastern	6.0	5.2	5.6	3.2	3.5	3.6		
Bulgaria	n.a.	5.9	7.6	n.a.	4.5	4.2		
Croatia	n.a.	5.5	5.2	n.a.	5.3	4.5		
Czech Republic	3.9	3.6	3.7	2.3	2.4	2.4		
Estonia	6.4	5.4	7.1	3.3	2.9	3.3		
Hungary	4.3	3.6	4.5	2.6	2.6	2.7		
Latvia	7.3	7.7	6.9	4.0	3.8	4.3		
Lithuania	7.5	8.4	6.6	3.5	3.6	4.0		
Poland	7.2	5.2	5.2	3.6	3.5	3.4		
Romania	n.a.	6.4	7.7	n.a.	4.1	4.8		
Slovakia	4.1	4.0	4.2	2.5	2.3	2.3		
Slovenia	3.3	3.4	3.7	3.7	3.6	3.5		
Nordic	3.5	3.8	3.9	2.8	3.2	3.5		
Denmark	3.5	4.4	4.2	2.5	3.6	3.8		
Finland	3.7	3.7	3.7	3.0	3.1	3.2		
Sweden	3.4	3.6	3.9	2.8	3.1	3.5		
Southern	5.9	6.1	6.8	4.7	4.5	4.4		
Cyprus	4.0	4.3	5.4	4.6	4.7	4.8		
Greece	5.9	6.0	7.3	5.0	4.1	4.1		
Italy	5.8	5.8	6.3	4.5	4.2	4.4		
Portugal	7.1	5.7	6.6	5.7	5.0	4.9		
Spain	5.7	6.5	7.5	4.6	4.8	4.3		

Table 10-43: Gender pay gap in % of average wage

	2007	2010	2013
EU-28	n.a.	16.1	16.3
Anglo-Saxon	20.5	19.0	19.6
Ireland	17.3	13.9	n.a.
Malta	7.8	7.2	5.1
United Kingdom	20.8	19.5	19.7
Continental	19.9	18.8	18.1
Austria	25.5	24.0	23.0
Belgium	10.1	10.2	9.8
France	17.3	15.6	15.1
Germany	22.8	22.3	21.6
Luxembourg	10.2	8.7	8.6
Netherlands	19.3	17.8	16.0
Eastern	15.9	10.5	11.5
Bulgaria	12.1	13.0	13.5
Croatia	n.a.	5.7	7.4
Czech Republic	23.6	21.6	22.1
Estonia	30.9	27.7	29.9
Hungary	16.3	17.6	18.4
Latvia	13.6	15.5	14.4
Lithuania	22.6	14.6	13.3
Poland	14.9	4.5	6.4
Romania	12.5	8.8	9.1
Slovakia	23.6	19.6	19.8
Slovenia	5.0	0.9	3.2
Nordic	18.4	16.8	16.4
Denmark	17.7	15.9	16.4
Finland	20.2	20.3	18.7
Sweden	17.8	15.4	15.2
Southern	11.5	10.8	12.6
Cyprus	22.0	16.8	15.8
Greece	21.5	15.0	n.a.
Italy	5.1	5.3	7.3
Portugal	8.5	12.8	13.0
Spain	18.1	16.2	19.3

Table 10-44: Tax revenue as % of GDP

		renue from taxe profits and capi		Tax re	Tax revenue from taxes on property			
	2005	2010	2014	2005	2010	2014		
EU-28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Anglo-Saxon	12.9	12.2	11.5	3.9	3.8	4.0		
Ireland	11.9	10.6	12.1	2.2	1.4	2.3		
Malta	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
United Kingdom	13.0	12.3	11.4	4.1	3.9	4.1		
Continental	10.2	10.0	11.2	1.9	1.9	2.2		
Austria	11.7	11.5	12.7	0.5	0.5	0.6		
Belgium	15.7	14.6	16.1	3.0	3.1	3.5		
France	10.1	9.1	10.5	3.3	3.5	3.9		
Germany	9.5	10.0	11.0	8.0	0.8	0.9		
Luxembourg	13.2	13.8	13.1	3.3	2.7	3.0		
Netherlands	10.1	10.1	n.a.	1.9	1.4	n.a.		
Eastern	7.1	6.5	6.7	1.1	1.0	0.7		
Bulgaria	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Croatia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Czech Republic	8.4	6.6	7.1	0.4	0.4	0.5		
Estonia	6.9	6.6	7.6	0.3	0.3	0.3		
Hungary	8.7	7.8	6.5	0.8	1.2	1.3		
Latvia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Lithuania	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Poland	6.4	6.3	n.a.	1.5	1.3	n.a.		
Romania	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Slovakia	5.9	5.4	6.3	0.5	0.4	0.4		
Slovenia	8.2	7.4	6.5	0.6	0.6	0.6		
Nordic	20.8	18.6	19.9	1.4	1.3	1.4		
Denmark	29.7	28.0	33.2	1.8	1.9	1.9		
Finland	16.1	14.5	15.3	1.2	1.1	1.3		
Sweden	18.2	15.3	14.8	1.4	1.0	1.1		
Southern	10.9	10.9	11.8	2.2	1.9	2.3		
Cyprus	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Greece	7.9	7.0	8.7	1.3	1.5	1.9		
Italy	12.4	13.7	14.2	2.0	2.0	2.6		
Portugal	7.8	8.3	10.7	1.1	1.1	1.3		
Spain	10.4	9.0	9.6	3.0	2.0	2.3		

n.a. not available. Source: OECD, 2016.

Table 10-45: Tax rates for different income levels

Table 10-45. Tax rai	Single	person, 67% o		Single	person, 167 <u>%</u> (	erson, 167% of AW		
	2005	2010	2014	2005	2010	2014		
EU-28	26.0	26.0	25.4	34.7	34.5	34.4		
Anglo-Saxon	23.1	22.2	19.2	30.6	30.4	30.2		
Ireland	14.1	15.1	13.8	32.2	33.5	33.1		
Malta	11.7	12.0	12.9	25.1	23.6	23.3		
United Kingdom	23.8	22.8	19.6	30.5	30.3	30.0		
Continental	31.7	30.4	30.7	41.0	39.6	40.1		
Austria	26.8	26.8	28.7	37.4	37.4	39.2		
Belgium	35.0	35.4	35.9	48.8	49.0	49.2		
France	25.9	25.9	26.7	33.1	33.3	34.3		
Germany	36.3	34.2	34.6	46.9	43.8	43.8		
Luxembourg	18.9	19.1	21.8	34.2	34.7	37.8		
Netherlands	31.9	27.7	25.4	38.3	38.7	39.3		
Eastern	24.0	23.6	24.2	29.9	27.7	27.0		
Bulgaria	17.0	20.9	21.6	25.6	20.9	21.6		
Croatia	n.a.	n.a.	25.0	n.a.	n.a.	35.1		
Czech Republic	21.7	18.2	19.2	27.3	25.9	26.3		
Estonia	17.3	17.5	18.2	21.8	20.9	20.8		
Hungary	22.2	27.5	34.5	41.6	39.2	34.5		
Latvia	27.8	29.9	28.7	30.2	31.5	30.7		
Lithuania	24.7	19.7	19.9	31.5	24.0	24.0		
Poland	27.0	23.5	23.9	29.5	25.4	25.5		
Romania	24.0	27.1	24.5	28.5	29.9	26.5		
Slovakia	17.7	17.3	19.4	24.8	24.7	25.7		
Slovenia	30.2	28.6	28.7	38.8	38.8	37.6		
Nordic	30.7	26.0	26.3	42.1	38.1	38.2		
Denmark	38.9	36.7	36.4	49.2	44.5	43.6		
Finland	25.0	22.1	23.8	38.6	36.3	37.8		
Sweden	29.2	21.9	21.8	40.0	35.3	35.1		
Southern	19.3	20.8	21.2	29.6	31.5	34.6		
Cyprus	6.3	n.a.	n.a.	15.8	n.a.	n.a.		
Greece	16.0	16.0	18.9	26.0	25.7	34.5		
Italy	23.1	25.5	23.9	34.0	36.8	39.0		
Portugal	15.9	16.9	19.5	28.6	30.5	35.0		
Spain	16.0	17.3	18.5	25.1	26.3	28.7		

Table 10-46: Formal childcare by age group

	From 3 years	to minimum co school age	ompulsory	Le	Less than 3 years			
	2005	2010	2013	2005	2010	2013		
EU-28	n.a.	39.0	35.0	n.a.	14.0	13.0		
Anglo-Saxon	63.8	67.2	51.1	23.2	30.2	25.5		
Ireland	64.0	73.0	68.0	14.0	21.0	19.0		
Malta	32.0	26.0	32.0	4.0	6.0	17.0		
United Kingdom	64.0	67.0	50.0	24.0	31.0	26.0		
Continental	60.1	49.0	42.2	14.0	14.5	14.0		
Austria	53.0	57.0	52.0	4.0	6.0	9.0		
Belgium	50.0	36.0	21.0	23.0	17.0	21.0		
France	56.0	47.0	46.0	16.0	17.0	13.0		
Germany	61.0	46.0	35.0	8.0	7.0	9.0		
Luxembourg	48.0	42.0	36.0	14.0	17.0	23.0		
Netherlands	82.0	76.0	71.0	36.0	44.0	40.0		
Eastern	14.5	19.7	16.3	0.8	1.3	1.8		
Bulgaria	n.a.	4.0	6.0	n.a.	1.0	0.0		
Croatia	n.a.	14.0	13.0	n.a.	0.0	1.0		
Czech Republic	30.0	32.0	21.0	2.0	2.0	1.0		
Estonia	9.0	6.0	9.0	3.0	2.0	3.0		
Hungary	30.0	14.0	17.0	2.0	1.0	1.0		
Latvia	7.0	6.0	9.0	2.0	2.0	1.0		
Lithuania	11.0	9.0	6.0	2.0	2.0	n.a.		
Poland	8.0	10.0	9.0	0.0	0.0	1.0		
Romania	n.a.	49.0	36.0	n.a.	4.0	5.0		
Slovakia	10.0	8.0	13.0	0.0	0.0	1.0		
Slovenia	10.0	14.0	10.0	2.0	4.0	3.0		
Nordic	26.8	23.1	19.3	15.8	13.2	12.2		
Denmark	15.0	15.0	7.0	13.0	10.0	2.0		
Finland	25.0	21.0	20.0	8.0	8.0	7.0		
Sweden	35.0	29.0	26.0	22.0	18.0	21.0		
Southern	32.1	29.3	32.1	13.3	10.4	11.4		
Cyprus	40.0	34.0	34.0	7.0	10.0	3.0		
Greece	27.0	46.0	39.0	3.0	3.0	8.0		
Italy	21.0	17.0	21.0	9.0	6.0	8.0		
Portugal	12.0	11.0	5.0	4.0	5.0	2.0		
Spain	53.0	45.0	51.0	24.0	19.0	19.0		

Duration of formal childcare up to 29 hours a week.

Table 10-47: Participation rate in education and training

		Both sexes			Males			Females	
	2005	2010	2014	2005	2010	2014	2005	2010	2014
EU-28	9.6	9.1	10.7	8.8	8.2	9.8	10.3	10.0	11.6
Anglo-Saxon	26.2	18.6	15.1	21.9	15.7	13.6	30.3	21.4	16.7
Ireland	7.4	6.8	6.7	6.2	6.3	6.0	8.6	7.2	7.3
Malta	5.2	6.0	7.1	5.8	5.8	6.8	4.7	6.2	7.5
United Kingdom	27.6	19.5	15.8	23.1	16.4	14.2	32.0	22.5	17.4
Continental	8.1	7.8	12.8	8.1	7.5	11.9	8.1	8.0	13.7
Austria	12.9	13.8	14.2	12.3	12.7	13.2	13.6	14.8	15.3
Belgium	8.3	7.2	7.1	8.2	7.0	6.7	8.5	7.4	7.6
France	5.9	5.0	18.3	5.6	4.5	15.9	6.2	5.4	20.7
Germany	7.7	7.7	7.9	8.0	7.7	8.0	7.4	7.6	7.8
Luxembourg	8.5	13.4	14.0	8.5	12.8	13.4	8.5	14.0	14.5
Netherlands	15.9	16.6	17.8	15.6	16.0	17.5	16.1	17.2	18.2
Eastern	4.1	4.1	4.0	3.6	3.7	3.7	4.6	4.5	4.3
Bulgaria	1.3	1.2	1.8	1.3	1.1	1.6	1.2	1.3	2.0
Croatia	2.1	2.5	2.5	2.0	2.6	2.4	2.1	2.5	2.6
Czech Republic	5.6	7.5	9.3	5.2	7.3	9.1	5.9	7.7	9.6
Estonia	6.0	10.9	11.5	4.5	8.5	9.2	7.3	13.1	13.7
Hungary	3.9	2.7	3.2	3.2	2.6	2.9	4.6	2.8	3.5
Latvia	7.8	5.1	5.5	4.8	3.5	4.8	10.6	6.6	6.2
Lithuania	6.1	3.9	5.0	4.3	3.1	4.5	7.8	4.7	5.4
Poland	4.9	5.2	4.0	4.3	4.7	3.6	5.4	5.7	4.3
Romania	1.6	1.2	1.5	1.5	1.1	1.6	1.6	1.2	1.3
Slovakia	4.6	2.8	3.0	4.3	2.2	2.8	5.0	3.3	3.1
Slovenia	15.3	16.2	11.9	13.6	14.1	10.4	17.2	18.3	13.6
Nordic	21.5	26.2	28.7	17.5	20.4	23.0	25.6	32.1	34.5
Denmark	27.4	32.5	31.7	23.6	26.0	26.0	31.2	39.1	37.5
Finland	22.5	23.0	25.1	19.0	18.9	21.6	26.1	27.1	28.8
Sweden	17.4	24.4	28.9	13.0	18.0	22.1	21.9	30.9	36.0
Southern	7.1	7.6	8.3	6.5	7.1	8.0	7.6	8.1	8.7
Cyprus	5.9	7.7	6.9	5.4	7.4	6.3	6.3	7.9	7.3
Greece	1.9	3.1	3.0	2.0	3.2	3.1	1.8	2.9	2.8
Italy	5.8	6.2	8.0	5.4	5.8	7.7	6.2	6.5	8.3
Portugal	4.1	5.7	9.6	4.0	5.7	9.3	4.2	5.7	9.9
Spain	10.8	11.0	9.8	9.8	10.1	9.2	11.7	11.9	10.5

People aged 25 to 64. Participation within the last 4 weeks. Source: Eurostat, 2016.

Table 10-48: Employment rates by migration status and educational attainment

	I	Levels 0 – 2		Le	Levels 3 and 4			Level 5 – 8		
	Total	Native- born	Foreign- born	Total	Native- born	Foreign- born	Total	Native- born	Foreign- born	
EU-28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Anglo-Saxon	56.3	57.2	51.7	72.7	73.5	67.9	84.3	85.7	79.2	
Ireland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Malta	50.8	50.2	58.7	67.1	67.5	60.9	87.5	89.8	74.7	
United Kingdom	56.3	57.2	51.7	72.7	73.5	67.9	84.3	85.7	79.2	
Continental	41.2	40.4	45.5	66.9	67.7	60.0	81.3	83.0	71.1	
Austria	47.3	47.7	46.3	74.2	75.0	70.2	82.6	84.2	75.9	
Belgium	35.6	34.9	37.8	64.4	65.3	58.5	81.9	84.0	70.5	
France	41.3	40.5	46.6	66.4	67.2	58.9	81.0	82.7	70.5	
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Luxembourg	41.9	32.2	53.7	65.4	65.9	64.6	83.0	83.1	83.0	
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Eastern	28.6	28.3	41.0	65.0	65.1	60.2	82.5	82.5	80.6	
Bulgaria	29.5	29.5	n.a.	64.9	64.9	56.9	81.2	81.5	66.0	
Croatia	26.2	25.0	37.9	57.2	57.8	51.9	78.8	79.5	72.5	
Czech Republic	22.1	21.4	36.3	74.0	74.0	75.5	82.2	82.1	82.8	
Estonia	36.4	35.4	60.8	71.5	72.3	66.2	84.0	85.8	74.1	
Hungary	30.7	30.5	45.1	66.4	66.4	68.3	80.8	80.7	81.3	
Latvia	31.8	31.4	41.5	68.1	68.1	67.0	84.1	84.7	74.5	
Lithuania	17.5	17.4	n.a.	65.1	65.0	71.7	88.6	89.4	74.3	
Poland	22.1	22.1	n.a.	62.5	62.6	52.7	83.6	83.6	85.0	
Romania	45.6	45.6	n.a.	64.7	64.8	n.a.	82.7	82.7	n.a.	
Slovakia	17.5	17.3	n.a.	66.6	66.6	66.4	76.3	76.3	78.3	
Slovenia	35.9	35.5	38.2	65.4	65.1	67.5	83.6	84.1	76.7	
Nordic	46.2	46.5	48.9	76.3	77.5	68.1	85.9	87.9	76.5	
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Finland	38.3	37.6	49.6	70.6	71.1	65.2	83.2	83.8	74.1	
Sweden	50.8	51.6	48.5	79.6	81.2	69.7	87.5	90.3	77.8	
Southern	43.3	42.4	49.3	59.2	59.0	60.3	74.8	75.8	66.8	
Cyprus	40.7	33.3	65.3	63.3	61.5	69.7	77.0	79.0	70.1	
Greece	38.5	36.4	51.6	47.3	47.2	48.0	68.0	68.7	53.7	
Italy	41.5	39.9	51.6	63.0	62.7	64.7	75.2	75.9	68.9	
Portugal	55.1	55.0	57.6	66.6	66.2	69.0	79.8	80.1	77.8	
Spain	44.1	44.2	43.7	55.4	55.4	55.3	74.8	76.3	64.5	

ISCED 2011: ISCED 0: Early childhood education, ISCED 1: Primary education, ISCED 2: Lower secondary education, ISCED 3: Upper secondary education, ISCED 4: Post-secondary non-tertiary education, ISCED 5: Short-cycle tertiary education, ISCED 6: Bachelor's or equivalent level, ISCED 7: Master's or equivalent level, ISCED 8: Doctoral or equivalent level. All data from 2014.

Table 10-49: Employment rates for people aged 50 or over by place of birth

Tuble 10 13. El	Birth in	reporting c		Birth in EU	Birth in EU-28-countries except reporting country			Birth extra EU-28		
	2006	2010	2014	2006	2010	2014	2006	2010	2014	
EU-28	32.4	34.2	36.3	31.3	34.5	38.9	39.2	43.4	45.6	
Anglo-Saxon	39.0	40.0	41.3	33.3	37.1	41.7	44.5	46.9	48.4	
Ireland	39.3	39.6	40.5	44.0	44.9	45.5	53.3	57.0	56.9	
Malta	25.6	27.3	29.0	27.8	24.6	33.2	n.a.	36.5	45.9	
United Kingdom	39.1	40.1	41.4	32.6	36.6	41.5	43.9	46.2	47.8	
Continental	32.7	35.1	38.3	30.3	32.8	35.5	37.1	38.2	39.3	
Austria	27.1	32.1	35.1	25.9	30.7	33.2	43.9	42.3	41.5	
Belgium	25.7	29.4	31.3	25.4	27.9	30.6	30.2	33.2	34.0	
France	30.0	31.4	34.0	30.1	31.0	32.8	36.4	37.3	37.7	
Germany	35.2	38.2	42.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Luxembourg	23.4	27.9	30.6	36.6	41.2	45.4	43.8	50.0	48.5	
Netherlands	37.7	40.2	42.2	36.3	44.1	50.3	40.7	42.7	47.7	
Eastern	32.3	31.5	35.0	18.9	19.6	19.2	18.0	21.8	28.2	
Bulgaria	29.1	33.6	35.4	n.a.	n.a.	n.a.	n.a.	n.a.	58.6	
Croatia	28.5	30.8	29.6	n.a.	24.1	15.0	24.4	28.7	30.1	
Czech Republic	39.3	38.2	38.3	24.9	29.6	35.7	35.0	36.6	58.9	
Estonia	44.0	43.2	46.8	46.2	45.2	45.9	36.8	39.4	35.5	
Hungary	26.8	28.2	31.0	23.2	27.8	33.0	26.3	39.4	25.6	
Latvia	41.9	39.5	42.8	29.6	31.8	30.3	33.6	32.5	32.2	
Lithuania	34.6	36.8	40.8	n.a.	n.a.	n.a.	29.1	35.9	39.3	
Poland	29.6	33.1	34.7	12.8	11.4	8.5	6.7	8.4	8.8	
Romania	35.6	34.3	34.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Slovakia	34.8	37.7	38.4	28.0	25.5	27.7	n.a.	n.a.	51.7	
Slovenia	31.2	31.7	32.2	28.4	26.3	24.9	41.9	50.2	46.2	
Nordic	49.1	48.5	48.2	51.6	52.4	57.5	42.7	50.0	52.5	
Denmark	41.8	40.2	40.8	42.4	48.5	49.2	38.5	47.8	41.8	
Finland	39.9	40.1	39.1	63.1	65.0	70.8	42.0	48.1	54.3	
Sweden	58.8	58.2	57.7	50.5	47.6	54.9	45.6	52.5	57.7	
Southern	27.3	29.0	30.9	32.7	39.4	45.7	51.2	57.6	60.1	
Cyprus	41.9	44.9	40.9	31.4	38.1	35.9	51.7	51.3	56.2	
Greece	27.6	28.2	25.8	42.9	61.0	54.4	52.1	58.2	55.6	
Italy	23.8	25.3	29.0	32.2	41.1	49.0	47.7	55.0	59.0	
Portugal	40.5	40.2	37.6	n.a.	39.1	40.1	52.5	56.3	56.6	
Spain	28.4	31.2	33.0	30.8	32.2	40.8	55.4	61.2	63.4	

Table 10-50: Confidence, satisfaction, volunteering and charity

	Confide natio	nce in onal	ŕ	Satis	faction wit	h§§		Volunteer ing <sup>§§§</sup>	Giving Index <sup>§§§§</sup>
	Total	Youth	financial situation	accomo- dation	job	overall life	living environm ent	2006	2013
EU-28	n.a.	n.a.	6.0	7.5	7.1	7.1	7.3	31.7	n.a.
Anglo-Saxon	46.9	55.7	6.2	7.9	7.0	7.3	7.8	16.6	55.3
Ireland	35.5	36.7	5.5	8.0	7.2	7.4	8.0	17.2	60.0
Malta	n.a.	n.a.	6.0	7.9	7.5	7.1	7.1	10.5	49.0
United Kingdom	47.8	57.1	6.2	7.9	7.0	7.3	7.8	n.a.	55.0
Continental	47.5	59.1	6.5	7.6	7.2	7.3	7.7	26.5	37.2
Austria	41.0	61.5	7.0	8.3	8.0	7.8	8.4	29.3	48.0
Belgium	52.1	67.2	6.9	7.8	7.5	7.6	7.6	11.8	36.0
France	47.4	52.3	6.4	7.5	7.2	7.1	7.6	14.2	26.0
Germany	44.8	60.5	6.3	7.5	6.9	7.3	7.7	31.9	42.0
Luxembourg	80.0	80.1	6.9	7.8	7.5	7.5	7.8	30.8	31.0
Netherlands	60.8	71.6	7.4	8.1	7.7	7.8	8.0	54	53.0
Eastern	28.3	30.6	5.6	7.2	7.1	6.8	7.2	31.9	23.1
Bulgaria	n.a.	n.a.	3.7	6.0	6.0	4.8	5.2	2.3	19.0
Croatia	n.a.	n.a.	4.6	6.9	7.0	6.3	6.3	n.a.	18.0
Czech Republic	17.8	22.5	6.0	7.7	7.4	6.9	7.5	3.5	22.0
Estonia	30.8	44.6	5.4	7.1	7.3	6.5	6.8	28.8	23.0
Hungary	23.0	16.1	5.2	6.8	7.1	6.1	6.5	8.6	29.0
Latvia	n.a.	n.a.	5.0	6.6	7.3	6.5	7.2	31.1	26.0
Lithuania	n.a.	n.a.	5.8	7.4	7.5	6.7	7.8	11.7	21.0
Poland	30.5	36.3	5.7	7.4	7.3	7.3	7.6	51.7	22.0
Romania	n.a.	n.a.	6.2	7.4	7.1	7.2	7.4	n.a.	23.0
Slovakia	43.2	33.6	5.5	7.6	7.2	7.0	6.9	28.3	26.0
Slovenia	24.6	20.6	5.6	7.6	7.3	7.0	7.7	75.4	40.0
Nordic	61.7	65.4	7.6	8.3	7.9	8.0	7.9	25.8	42.2
Denmark	55.4	59.8	7.6	8.4	8.1	8.0	8.2	2.3	47.0
Finland	62.0	69.8	7.5	8.4	8.1	8.0	7.8	34.7	43.0
Sweden	65.3	66.1	7.6	8.2	7.7	8.0	7.7	34.8	39.0
Southern	30.1	30.1	5.5	7.2	6.9	6.7	6.5	27.5	28.9
Cyprus	n.a.	n.a.	5.2	7.7	7.2	6.2	6.0	67.4	43.0
Greece	13.6	7.6	4.3	6.6	6.1	6.2	6.2	15.7	21.0
Italy	29.6	29.6	5.7	7.2	7.0	6.7	6.0	18.7	28.0
Portugal	25.5	30.5	4.5	7.3	7.0	6.2	6.3	28.4	28.0
Spain	35.8	35.9	5.8	7.3	6.9	6.9	7.2	41.3	32.0

<sup>§</sup> Data from 2012. Youth = people aged 15 to 24 years. Source: OECD, 2016.

<sup>§§</sup> Data from 2013. n.a. not available. Source: Eurostat, 2016.

<sup>§§§</sup> Participation of young people aged 16 to 29 years in informal voluntary activities. Without data of Croatia, Romania and United Kingdom. Source: Eurostat, 2016.

<sup>\*\*</sup>SSSS\*\* The giving's report worldwide ranks the countries within the categories "helping a stranger", "donating money" and "volunteering time" and calculates an overall index. In 2013, the leading countries (Myanmar and USA) reached 64 points, and Ireland (60 points) was the best European country (fourth place). Source: Charities Aid Foundation, 2014.

n.a. not available.

Table 10-51: Life expectancy at birth, 1970 and 2013

	Male	es	Fen	Females			
	1970	2013	1970	2013			
EU	68.2	78.4	74.5	83.8			
Anglo-Saxon	68.7	79.2	74.9	82.9			
Ireland	68.8	79.0	73.5	83.1			
United Kingdom	68.7	79.2	75.0	82.9			
Continental	68.1	78.8	74.7	84.1			
Austria	66.5	78.6	73.5	83.8			
Belgium	67.9	78.1	74.2	83.2			
France	68.4	79.0	75.9	85.6			
Germany	67.5	78.6	73.6	83.2			
Luxembourg	66.2	79.8	73.0	83.9			
Netherlands	70.8	79.5	76.5	83.2			
Eastern	66.4	73.3	73.1	80.9			
Czech Republic	66.1	75.2	73.1	81.3			
Estonia	65.5	72.8	74.5	81.7			
Hungary	66.3	72.2	72.1	79.1			
Poland	66.6	73.0	73.3	81.2			
Slovakia	66.8	72.9	73.1	80.1			
Slovenia	65.0	77.2	72.4	83.6			
Nordic	70.3	79.1	76.3	83.5			
Denmark	70.7	78.3	75.9	82.4			
Finland	66.5	78.0	75.0	84.1			
Sweden	72.3	80.2	77.3	83.8			
Southern	68.9	79.9	74.5	85.3			
Greece	71.6	78.7	76.0	84.0			
Italy	69.0	80.3	74.9	85.2			
Portugal	63.6	77.6	69.7	84.0			
Spain	69.2	80.2	74.8	86.1			

Table 10-52: Percent reporting to be in good health

	2013 (or nea	rest year)
	highest income quintile	lowest income quintile
EU	78.2	60.0
Anglo-Saxon	89.0	64.9
Ireland	90.7	77.0
United Kingdom	88.9	64.0
Continental	77.2	57.4
Austria	79.8	59.6
Belgium	86.2	58.3
France	73.5	62.0
Germany	77.3	51.6
Luxembourg	79.6	67.3
Netherlands	84.0	65.8
Eastern	71.6	53.1
Czech Republic	77.1	47.8
Estonia	78.3	38.5
Hungary	68.8	52.9
Poland	69.4	54.2
Slovakia	77.7	60.3
Slovenia	76.4	51.5
Nordic	84.2	63.4
Denmark	83.0	66.5
Finland	76.8	49.0
Sweden	89.0	69.8
Southern	76.4	64.3
Greece	82.6	75.4
Italy	74.2	63.2
Portugal	61.9	40.0
Spain	80.9	68.6

Table 10-53: Age-standardized mortality per 100,000 population

	Per 100,0	000 population in 2013 (or neares	st year)
	heart diseases	cerebrovascular diseases	cancer
EU	97.3	60.0	211.3
Anglo-Saxon	100.2	53.1	222.4
Ireland	135.9	60.5	221.7
United Kingdom	97.6	52.6	222.4
Continental	81.2	46.8	205.8
Austria	139.5	48.5	197.1
Belgium	62.6	50.7	207.0
France	42.5	38.1	203.5
Germany	115.2	52.1	204.8
Luxembourg	65.6	46.3	189.1
Netherlands	49.8	51.2	224.3
Eastern	185.2	96.6	242.9
Czech Republic	260.0	96.7	229.8
Estonia	259.5	68.1	233.3
Hungary	297.4	118.4	286.3
Poland	106.4	86.4	234.2
Slovakia	404.4	136.7	247.2
Slovenia	93.9	91.6	257.3
Nordic	108.3	57.2	199.8
Denmark	70.6	54.3	246.1
Finland	153.9	64.7	175.8
Sweden	104.7	54.6	186.2
Southern	71.0	64.1	198.6
Greece	83.3	105.9	198.2
Italy	84.1	67.2	205.4
Portugal	50.5	88.1	195.0
Spain	55.9	44.9	190.8

Table 10-54: Percent of adults smoking daily

	2013 (or ne	earest year)
	men	women
EU	26.3	18.1
Anglo-Saxon	21.9	18.9
Ireland	20.0	17.0
United Kingdom	22.0	19.0
Continental	25.9	18.2
Austria	27.3	19.4
Belgium	21.6	16.4
France	28.7	20.2
Germany	25.1	17.1
Luxembourg	17.6	13.9
Netherlands	20.9	16.3
Eastern	30.7	17.8
Czech Republic	27.2	17.4
Estonia	36.2	18.3
Hungary	31.9	21.7
Latvia	52.0	17.6
Lithuania	33.0	13.0
Poland	30.9	17.9
Slovakia	27.1	12.5
Slovenia	22.6	18.4
Nordic	14.6	13.1
Denmark	18.6	15.5
Finland	19.1	13.2
Sweden	9.8	11.7
Southern	28.6	18.6
Greece	43.7	34.0
Italy	26.7	15.9
Portugal	27.2	11.0
Spain	27.9	20.2

Table 10-55: Alcohol consumption per capita

	2013 (or nearest year)
	litre alcohol
EU	9.8
Anglo-Saxon	9.8
Ireland	10.6
United Kingdom	9.7
Continental	10.8
Austria	12.2
Belgium	9.8
France	11.1
Germany	10.9
Luxembourg	11.0
Netherlands	9.1
Eastern	11.0
Czech Republic	11.5
Estonia	11.8
Hungary	11.1
Latvia	10.2
Lithuania	14.3
Poland	10.8
Slovakia	9.9
Slovenia	9.5
Nordic	8.4
Denmark	9.5
Finland	9.1
Sweden	7.4
Southern	7.9
Greece	7.4
Italy	6.1
Portugal	10.3
Spain	9.8

Table 10-56: Percent of adults suffering from obesity

	2013 (or nearest year)	
	litre alcohol	
EU		18.0
Anglo-Saxon		24.8
Ireland		23.0
United Kingdom		24.9
Continental		18.1
Austria		12.4
Belgium		13.7
France		14.5
Germany		23.6
Luxembourg		22.7
Netherlands		11.1
Eastern		19.1
Czech Republic		21.0
Estonia		19.0
Hungary		28.5
Latvia		23.6
Lithuania		25.7
Poland		15.8
Slovakia		16.9
Slovenia		18.3
Nordic		15.8
Denmark		14.2
Finland		24.8
Sweden		11.7
Southern		13.8
Greece		19.6
Italy		10.3
Portugal		15.4
Spain		16.6

Table 10-57: Health expenditure 2013 (or nearest year)

	_							
		in % of GDP		ŗ	per capita \$ PPP			
	total	public	private	total	public	private		
EU	9.3	7.2	2.1	3,478	2,699	779		
Anglo-Saxon	8.5	6.9	1.5	3,264	2,682	581		
Ireland	8.1	5.5	2.6	3,663	2,509	1,154		
United Kingdom	8.5	7.0	1.4	3,235	2,695	540		
Continental	10.9	8.5	2.4	4,552	3,567	986		
Austria	10.1	7.7	2.4	4,553	3,469	1,084		
Belgium	10.2	8.0	2.3	4,255	3,311	944		
France	10.9	8.6	2.3	4,124	3,247	877		
Germany	11.0	8.4	2.6	4,818	3,677	1,141		
Luxembourg	6.6	5.5	1.2	4,371	3,608	763		
Netherlands	11.1	9.7	1.4	5,131	4,495	636		
Eastern	6.7	4.8	1.9	1,686	1,219	467		
Czech Republic	7.1	6.0	1.1	2,040	1,716	324		
Estonia	6.0	4.6	1.3	1,542	1,198	344		
Hungary	7.4	4.8	2.6	1,719	1,111	608		
Poland	5.3	3.2	2.1	1,216	730	486		
Slovakia	6.1	4.1	2.0	1,571	1,045	526		
Slovenia	6.4	4.5	1.9	1,528	1,081	447		
Nordic	7.6	5.6	2.0	2,011	1,492	519		
Denmark	8.7	6.2	2.5	2,511	1,783	728		
Finland	10.2	8.4	1.8	4,425	3,643	782		
Sweden	10.4	8.8	1.6	4,554	3,841	713		
Southern	8.6	6.5	2.2	3,442	2,583	859		
Greece	11.0	9.2	1.7	4,905	4,126	779		
Italy	8.9	6.5	2.4	2,903	2,139	764		
Portugal	9.2	6.0	3.1	2,349	1,551	798		
Spain	8.8	6.8	2.0	3,077	2,381	696		

Table 10-58: Out-of-pocket health expenditure (in % of total household expenditure)

	2013 (or nearest year)
	litre alcohol
EU	2.3
Anglo-Saxon	1.5
Ireland	3.2
United Kingdom	1.4
Continental	1.7
Austria	2.9
Belgium	3.0
France	1.4
Germany	1.8
Luxembourg	1.8
Netherlands	1.3
Eastern	2.7
Czech Republic	2.1
Estonia	2.4
Hungary	4.0
Poland	2.5
Slovenia	2.0
Nordic	3.1
Denmark	2.6
Finland	2.9
Sweden	3.4
Southern	3.4
Greece	4.1
Italy	3.2
Portugal	3.9
Spain	3.4

Spain Source: OECD, 2015.

Table 10-59: Percent of population facing unmet needs for medical and dental care

	medical ex	kamination	denta	ıl care
	lowest income quintile	highest income quintile	lowest income quintile	highest income quintile
EU	5.7	1.4	9.7	1.6
Anglo-Saxon	1.7	1.3	3.9	1.1
Ireland	3.8	1.5	6.5	2.8
United Kingdom	1.5	1.3	3.7	1.0
Continental	4.0	0.6	6.7	1.1
Austria	1.0	0.2	3.3	0.4
Belgium	5.5	0.1	8.3	0.4
France	5.7	0.7	10.9	2.2
Germany	3.3	0.8	4.3	0.5
Luxembourg	2.5	0.1	4.9	0.2
Netherlands	0.8	0.3	2.8	0.4
Eastern	8.9	4.0	8.3	2.0
Czech Republic	1.9	0.7	2.8	0.7
Estonia	10.8	6.3	16.2	1.4
Hungary	6.5	0.3	10.0	0.7
Latvia	25.4	4.3	35.8	4.2
Lithuania	4.6	2.0	8.8	1.6
Poland	11.8	6.3	7.9	2.8
Slovakia	2.9	1.3	1.5	0.3
Slovenia	n.a.	n.a.	10.1	1.5
Nordic	3.5	1.3	10.7	0.4
Denmark	1.6	0.7	6.3	3.1
Finland	6.0	2.3	11.8	1.2
Sweden	3.2	1.0	17.7	2.5
Southern	9.1	1.1	15.1	1.9
Greece	14.9	1.0	19.2	2.9
Italy	14.6	1.8	23.7	3.5
Portugal	5.1	0.9	15.1	1.8
Spain	1.6	0.2	8.8	6.3

n.a. not available Source: OECD, 2015.

Table 10-60: Public family spending as % of GDP

	2005	2008	2011
EU-28	n.a.	n.a.	n.a.
Anglo-Saxon	3.1	3.5	4.0
Ireland	2.8	3.5	3.9
Malta	n.a.	n.a.	n.a.
United Kingdom	3.1	3.5	4.0
Continental	2.4	2.4	2.5
Austria	2.8	2.7	2.7
Belgium	2.6	2.6	2.9
France	3.0	2.9	2.9
Germany	2.1	2.0	2.2
Luxembourg	3.6	4.1	3.6
Netherlands	1.6	1.6	1.6
Eastern	1.6	1.6	1.8
Bulgaria	n.a.	n.a.	n.a.
Croatia	n.a.	n.a.	n.a.
Czech Republic	1.7	1.7	1.6
Estonia	3.0	2.9	3.2
Hungary	3.1	3.4	3.3
Latvia	n.a.	n.a.	n.a.
Lithuania	n.a.	n.a.	n.a.
Poland	1.1	1.1	1.3
Romania	n.a.	n.a.	n.a.
Slovakia	1.9	1.7	2.1
Slovenia	1.9	1.8	2.2
Nordic	3.3	3.4	3.6
Denmark	3.6	3.8	4.0
Finland	3.0	2.9	3.2
Sweden	3.3	3.5	3.6
Southern	1.2	1.4	1.4
Cyprus	n.a.	n.a.	n.a.
Greece	1.1	1.2	1.4
Italy	1.3	1.5	1.5
Portugal	1.2	1.3	1.2
Spain	1.2	1.4	1.4

n.a. not available. Source: OECD, 2016.

Table 10-61: Heirs and family businesses

	Heirs <sup>§§</sup>	Family businesses§
EU-28	n.a.	n.a.
Anglo-Saxon	n.a.	0.66
Ireland	n.a.	0.75
Malta	0.32	0.70
United Kingdom	n.a.	0.65
Continental	0.36	0.74
Austria	0.35	0.80
Belgium	0.35	0.70
France	0.40	0.75
Germany	0.34	0.75
Luxembourg	0.29	0.70
Netherlands	0.32	0.61
Eastern	n.a.	0.73
Bulgaria	n.a.	0.70
Croatia	n.a.	n.a.
Czech Republic	n.a.	0.87
Estonia	0.30	0.90
Hungary	n.a.	0.70
Latvia	n.a.	0.58
Lithuania	n.a.	0.38
Poland	n.a.	0.75
Romania	n.a.	0.65
Slovakia	0.38	0.90
Slovenia	0.30	0.70
Nordic	n.a.	0.68
Denmark	n.a.	0.77
Finland	n.a.	0.80
Sweden	n.a.	0.55
Southern	n.a.	0.79
Cyprus	0.44	0.90
Greece	0.31	0.80
Italy	n.a.	0.75
Portugal	0.30	0.75
Spain	n.a.	0.85

<sup>§</sup> as % of all registered businesses. Data from 2013. Source: European Family Businesses, 2016.

<sup>§§</sup> as % of total population. Source: Fessler and Schürz, 2015. n.a. not available.

Table 10-62: Public debt, financial deficit and government guarantees as % of GDP

	Public debt Financial surplus (+) /deficit (-)					Govern	Government guarantees		
	2005	2010	2014	2005	2010	2014	2010	2012	2014
EU-28	61.8	78.4	86.8	-2.6	-6.4	-3.0	n.a.	n.a.	n.a.
Anglo-Saxon	40.7	77.2	89.4	-3.2	-11.2	-5.6	32.3	14.1	9.2
Ireland	26.1	86.8	107.5	1.3	-32.3	-3.9	96.0	66.1	13.3
Malta	70.1	67.6	68.3	-2.7	-3.2	-2.1	11.8	16.5	16.8
United Kingdom	41.5	76.6	88.2	-3.5	-9.7	-5.7	27.8	10.3	8.9
Continental	66.9	80.3	83.9	-3.0	-5.2	-1.8	15.9	13.2	11.2
Austria	68.3	82.4	84.2	-2.5	-4.4	-2.7	53.4	38.9	26.5
Belgium	94.6	99.6	106.7	-2.6	-4.0	-3.1	17.2	17.6	11.6
France	67.2	81.7	95.6	-3.2	-6.8	-3.9	6.7	4.5	4.5
Germany	66.9	81.0	74.9	-3.4	-4.2	0.3	20.3	17.9	16.4
Luxembourg	6.3	19.6	23.0	0.2	-0.5	1.4	5.1	8.7	7.6
Netherlands	48.9	59.0	68.2	-0.3	-5.0	-2.4	10.7	7.9	4.0
Eastern	35.0	45.2	49.6	-3.0	-6.3	-2.8	4.4	4.2	4.2
Bulgaria	26.6	15.5	27.0	1.0	-3.2	-5.8	1.3	0.9	0.6
Croatia	40.7	57.0	85.1	-3.7	-5.9	-5.6	9.0	2.6	2.3
Czech Republic	28.0	38.2	42.7	-3.1	-4.4	-1.9	0.8	0.5	0.5
Estonia	4.5	6.6	10.4	1.1	0.2	0.7	2.6	1.9	1.6
Hungary	60.5	80.6	76.2	-7.8	-4.5	-2.5	9.5	8.4	7.8
Latvia	11.8	47.5	40.6	-0.4	-8.5	-1.5	2.9	2.9	1.3
Lithuania	17.6	36.2	40.7	-0.3	-6.9	-0.7	1.4	0.8	0.8
Poland	46.7	53.3	50.4	-4.0	-7.5	-3.3	5.3	6.7	7.0
Romania	15.7	29.9	39.9	-1.2	-6.9	-1.4	2.4	2.1	2.3
Slovakia	33.9	40.8	53.5	-2.9	-7.5	-2.8	0.1	0.0	0.0
Slovenia	26.3	38.2	80.8	-1.3	-5.6	-5.0	19.7	13.4	12.4
Nordic	43.0	41.6	48.7	2.9	-1.4	-1.3	17.1	13.3	14.0
Denmark	37.4	42.9	45.1	5.0	-2.7	1.5	14.6	7.4	9.2
Finland	40.0	47.1	59.3	2.6	-2.6	-3.3	19.6	21.4	25.9
Sweden	48.2	37.6	44.9	1.8	0.0	-1.7	17.1	12.1	10.2
Southern	78.3	96.0	124.0	-2.6	-7.3	-4.5	5.7	14.3	8.9
Cyprus	63.2	56.3	108.2	-2.2	-4.8	-8.9	7.5	14.5	n.a.
Greece	107.3	146.2	178.6	-6.2	-11.2	-3.6	3.2	30.9	28.0
Italy	101.9	115.3	132.3	-4.2	-4.2	-3.0	0.8	6.2	2.7
Portugal	67.4	96.2	130.2	-6.2	-11.2	-7.2	4.6	13.6	7.2
Spain	42.3	60.1	99.3	1.2	-9.4	-5.9	12.7	20.9	12.8

Table 10-63: Total R&D, business enterprise R&D and gross capital formation as % of GDP

	Total R&D			Busine	Business enterprise R&D			Gross capital formation		
	2005	2010	2014	2005	2010	2014	2005	2010	2013	
EU-28	1.8	1.9	2.0	1.1	1.2	1.3	n.a.	3.5	3.0	
Anglo-Saxon	1.6	1.7	1.7	1.0	1.0	1.1	1.6	3.2	2.6	
Ireland	1.2	1.6	1.6	0.8	1.1	1.1	3.5	3.3	1.8	
Malta	0.5	0.6	0.9	0.4	0.4	0.5	4.7	2.1	2.7	
United Kingdom	1.6	1.7	1.7	1.0	1.0	1.1	1.5	3.2	2.7	
Continental	2.2	2.4	2.5	1.4	1.5	1.7	2.9	3.2	3.0	
Austria	2.4	2.7	3.0	1.7	1.9	2.1	2.9	3.2	3.0	
Belgium	1.8	2.1	2.5	1.2	1.4	1.8	2.1	2.3	2.2	
France	2.0	2.2	2.3	1.3	1.4	1.5	4.0	4.2	4.0	
Germany	2.4	2.7	2.8	1.7	1.8	1.9	1.9	2.3	2.2	
Luxembourg	1.6	1.5	1.2	1.4	1.0	0.7	4.8	4.6	3.5	
Netherlands	1.8	1.7	2.0	1.0	0.8	1.1	3.7	4.2	3.6	
Eastern	0.7	0.8	1.0	0.3	0.3	0.5	3.7	5.1	4.1	
Bulgaria	0.5	0.6	0.8	0.1	0.3	0.5	3.7	4.8	4.2	
Croatia	0.9	0.7	0.8	0.4	0.3	0.4	5.6	3.3	3.7	
Czech Republic	1.2	1.3	2.0	0.7	0.8	1.1	4.9	4.7	3.5	
Estonia	0.9	1.6	1.5	0.4	0.8	0.6	4.6	4.9	5.5	
Hungary	0.9	1.2	1.4	0.4	0.7	1.0	4.2	3.7	4.4	
Latvia	0.5	0.6	0.7	0.2	0.2	0.2	3.6	4.8	4.4	
Lithuania	0.8	0.8	1.0	0.2	0.2	0.3	3.6	5.0	3.7	
Poland	0.6	0.7	0.9	0.2	0.2	0.4	3.5	5.7	4.1	
Romania	0.4	0.5	0.4	0.2	0.2	0.2	2.8	5.7	4.6	
Slovakia	0.5	0.6	0.9	0.3	0.3	0.3	3.6	3.6	3.1	
Slovenia	1.4	2.1	2.4	0.8	1.4	1.9	3.8	4.9	4.3	
Nordic	3.1	3.3	3.1	2.2	2.2	2.1	3.6	4.0	4.2	
Denmark	2.4	2.9	3.1	1.6	2.0	2.0	2.7	3.3	3.7	
Finland	3.3	3.7	3.2	2.4	2.6	2.2	3.7	3.7	4.2	
Sweden	3.4	3.2	3.2	2.5	2.2	2.1	4.1	4.5	4.5	
Southern	1.0	1.2	1.2	0.5	0.7	0.6	3.6	3.8	2.3	
Cyprus	0.4	0.5	0.5	0.1	0.1	0.1	3.4	4.2	2.0	
Greece	0.6	0.6	0.8	0.2	:	0.3	n.a.	3.2	2.7	
Italy	1.1	1.2	1.3	0.5	0.7	0.7	3.0	2.9	2.4	
Portugal	0.8	1.5	1.3	0.3	0.7	0.6	4.1	5.3	2.2	
Spain	1.1	1.4	1.2	0.6	0.7	0.6	4.2	4.7	2.1	

Table 10-64: Public spending on environmental protection as % of GDP

Tubic 10 off Tubic openaing	2005	2010	2013
EU-28	n.a.	0.9	0.8
Anglo-Saxon	0.6	1.0	0.8
Ireland	0.9	0.9	0.6
Malta	1.4	1.9	1.4
United Kingdom	0.6	1.0	0.8
Continental	0.7	0.8	0.8
Austria	0.5	0.6	0.5
Belgium	0.7	0.7	1.0
France	0.9	1.0	1.0
Germany	0.5	0.6	0.6
Luxembourg	1.1	1.1	1.2
Netherlands	1.5	1.6	1.5
Eastern	0.6	0.7	0.8
Bulgaria	0.7	0.7	0.9
Croatia	0.3	0.4	0.4
Czech Republic	1.1	1.0	1.0
Estonia	0.9	-0.2	0.7
Hungary	0.6	0.6	0.9
Latvia	0.7	0.3	0.7
Lithuania	0.6	1.3	0.5
Poland	0.7	0.7	0.7
Romania	0.3	0.8	0.7
Slovakia	0.7	0.9	0.9
Slovenia	0.8	0.7	0.7
Nordic	0.4	0.3	0.3
Denmark	0.6	0.4	0.4
Finland	0.3	0.3	0.3
Sweden	0.4	0.3	0.3
Southern	0.9	0.9	0.8
Cyprus	0.3	0.3	0.4
Greece	n.a.	0.7	0.8
Italy	0.9	0.9	0.9
Portugal	0.6	0.6	0.4
Spain	0.9	1.1	0.8

Table 10-65: Pension expenditures as % of GDP

	Overall Early pension Invalidity Pension							ion	
	2005	2010	2013	2005	2010	2013	2005	2010	2013
EU-28	n.a.	12.3	n.a.	n.a.	0.7	n.a.	n.a.	0.9	n.a.
Anglo-Saxon	9.8	10.9	11.0	0.0	0.0	0.0	1.0	1.3	1.0
Ireland	4.8	6.9	6.8	0.6	0.1	0.1	0.7	1.1	1.1
Malta	8.6	9.4	8.9	0.0	0.0	0.0	0.8	0.6	0.5
United Kingdom	10.1	11.2	11.3	0.0	0.0	0.0	1.0	1.3	1.0
Continental	12.7	13.1	13.3	0.5	0.3	0.3	0.7	0.8	0.8
Austria	13.7	14.6	14.8	0.9	1.0	0.9	1.5	1.5	1.4
Belgium	10.9	11.8	12.4	0.0	0.0	0.0	1.4	1.6	1.7
France	12.9	14.3	15.0	0.0	0.0	0.0	0.8	1.0	1.1
Germany	12.9	12.4	11.9	0.8	0.5	0.5	0.2	0.2	0.2
Luxembourg	9.7	9.3	9.6	1.5	1.9	2.0	1.6	1.0	0.9
Netherlands	11.8	12.0	13.3	0.6	0.4	0.3	2.2	1.9	2.0
Eastern	9.3	10.2	8.9	1.0	1.0	0.4	1.1	1.0	0.8
Bulgaria	7.3	8.8	8.6	1.0	1.0	0.9	0.7	0.8	0.8
Croatia	n.a.	10.6	10.9	n.a.	0.7	1.2	n.a.	3.1	3.0
Czech Republic	7.7	8.8	9.3	0.2	0.3	0.2	1.0	1.1	1.0
Estonia	5.8	8.7	7.5	1.0	1.0	1.6	0.6	1.2	1.1
Hungary	9.6	10.7	9.4	0.9	1.3	0.5	1.3	1.1	0.0
Latvia	6.0	10.1	8.2	0.2	0.3	0.2	0.6	0.9	0.8
Lithuania	6.5	8.4	7.2	0.2	0.2	0.2	0.9	1.3	0.9
Poland	12.5	11.6	n.a.	2.1	1.9	n.a.	1.5	1.0	n.a.
Romania	6.2	9.3	8.3	0.0	0.0	0.0	0.5	0.7	0.4
Slovakia	7.3	8.2	8.5	0.1	0.3	0.3	0.8	1.0	1.1
Slovenia	10.2	11.0	11.7	2.4	2.7	2.9	0.9	0.8	0.6
Nordic	11.1	11.9	12.7	0.9	0.8	0.8	2.1	1.3	1.1
Denmark	10.7	12.7	13.9	1.8	1.2	1.0	1.7	0.0	0.0
Finland	10.7	12.2	13.0	0.5	0.6	0.6	2.0	1.9	1.7
Sweden	11.5	11.3	11.9	0.7	0.7	0.7	2.4	1.7	1.3
Southern	11.8	13.4	14.9	1.4	1.6	1.3	0.8	0.8	0.9
Cyprus	6.1	7.5	9.8	0.0	0.0	0.0	0.3	0.3	0.4
Greece	11.8	13.7	n.a.	2.5	2.9	n.a.	0.7	0.8	n.a.
Italy	14.1	15.5	16.5	2.0	2.2	1.8	0.3	0.3	0.3
Portugal	12.0	13.7	15.7	0.3	0.5	0.5	2.0	1.8	1.9
Spain	8.8	10.6	12.6	0.5	0.7	0.9	1.1	1.3	1.4

Table 10-66: Patent applications to the European Patent Office

	2005	2010	2013
EU-28	115.5	112.1	113.3
Anglo-Saxon	91.8	83.2	83.8
Ireland	66.8	68.9	86.8
Malta	27.9	8.5	9.7
United Kingdom	94.0	84.7	84.1
Continental	216.3	208.8	208.2
Austria	185.8	210.4	224.0
Belgium	144.9	138.8	138.2
France	133.6	130.7	138.0
Germany	291.5	285.0	275.3
Luxembourg	213.4	151.6	107.2
Netherlands	215.2	183.4	203.4
Eastern	5.9	10.0	13.3
Bulgaria	3.0	2.3	4.9
Croatia	7.7	7.1	3.0
Czech Republic	10.6	18.3	23.2
Estonia	4.7	28.3	11.9
Hungary	13.4	19.4	25.3
Latvia	7.9	7.4	30.4
Lithuania	2.6	5.1	11.1
Poland	3.4	9.5	12.7
Romania	1.3	1.7	4.1
Slovakia	5.8	8.6	12.8
Slovenia	54.3	51.3	46.0
Nordic	252.7	269.3	285.6
Denmark	220.1	230.3	287.3
Finland	255.9	258.8	254.9
Sweden	270.4	298.4	302.0
Southern	52.8	48.0	46.0
Cyprus	22.9	9.4	5.2
Greece	10.1	5.9	7.0
Italy	84.8	75.6	70.6
Portugal	11.7	9.0	12.2
Spain	31.4	32.4	31.4

Per million inhabitants. Source: Eurostat, 2016.

Table 10-67: Environmental tax revenues

		As % of GDP			As % of total revenues from taxes and social contributions			
	2005	2010	2013	2005	2010	2013		
EU-28	2.5	2.4	2.4	6.4	6.2	6.1		
Anglo-Saxon	2.4	2.5	2.5	6.7	7.2	7.2		
Ireland	2.5	2.5	2.5	8.0	8.6	8.3		
Malta	3.1	2.9	2.7	9.3	9.0	7.9		
United Kingdom	2.4	2.5	2.5	6.6	7.1	7.1		
Continental	2.4	2.2	2.2	5.9	5.4	5.2		
Austria	2.6	2.4	2.4	6.2	5.6	5.5		
Belgium	2.5	2.2	2.1	5.4	4.9	4.3		
France	2.0	1.9	2.0	4.4	4.3	4.3		
Germany	2.4	2.1	2.0	6.3	5.6	5.2		
Luxembourg	3.0	2.4	2.2	7.6	6.2	5.5		
Netherlands	3.6	3.5	3.3	9.8	9.6	8.9		
Eastern	2.6	2.5	2.4	7.9	8.0	7.4		
Bulgaria	2.9	2.8	2.8	9.6	10.6	10.1		
Croatia	3.9	3.7	3.5	10.6	10.2	9.6		
Czech Republic	2.5	2.3	2.1	7.2	7.0	6.1		
Estonia	2.3	2.9	2.5	7.6	8.7	8.0		
Hungary	2.8	2.6	2.6	7.5	7.0	6.7		
Latvia	2.5	2.4	2.5	9.0	8.6	8.5		
Lithuania	2.3	1.8	1.6	7.8	6.4	6.0		
Poland	2.7	2.6	2.4	7.9	8.0	7.3		
Romania	2.0	2.1	2.1	7.1	7.8	7.5		
Slovakia	2.3	1.8	1.7	7.5	6.5	5.6		
Slovenia	3.2	3.6	3.9	8.2	9.5	10.5		
Nordic	3.4	3.0	3.0	7.3	6.8	6.6		
Denmark	4.9	4.0	4.3	10.0	8.7	8.7		
Finland	3.0	2.7	2.9	7.0	6.6	6.7		
Sweden	2.7	2.6	2.4	5.8	5.9	5.4		
Southern	2.5	2.3	2.7	6.7	6.2	6.8		
Cyprus	3.2	2.6	2.6	10.2	8.2	8.2		
Greece	n.a.	2.5	2.9	n.a.	7.2	7.7		
Italy	2.9	2.8	3.4	7.4	6.7	7.8		
Portugal	2.9	2.4	2.2	8.4	7.1	5.9		
Spain	1.9	1.6	1.9	5.3	5.1	5.5		

Table 10-68: Replacement ratio and relative median income

	Aggr	Aggregate replacement ratio§ Relative median income ratio§§						
	2005	2010	2014	2005	2010	2014		
EU-28	n.	a. 52.0	56.0	n.a.	88.0	94.0		
Anglo-Saxon	42	.3 47.9	49.2	73.5	81.3	86.3		
Ireland	46	.0 47.0	38.0	66.0	85.0	91.0		
Malta	47	.0 44.0	56.0	75.0	81.0	78.0		
United Kingdom	42	.0 48.0	50.0	74.0	81.0	86.0		
Continental	50	4 54.7	55.0	91.0	91.3	93.7		
Austria	69	.0 57.0	60.0	96.0	90.0	95.0		
Belgium	42	.0 46.0	47.0	73.0	75.0	77.0		
France	57	.0 65.0	69.0	90.0	98.0	102.0		
Germany	46	.0 49.0	45.0	94.0	89.0	90.0		
Luxembourg	63	.0 68.0	85.0	96.0	105.0	111.0		
Netherlands	43	.0 47.0	50.0	88.0	87.0	89.0		
Eastern	56	.2 56.3	58.6	98.8	90.3	95.5		
Bulgaria	n.	a. 43.0	44.0	n.a.	74.0	82.0		
Croatia	n.	a. 32.0	40.0	n.a.	78.0	88.0		
Czech Republic	51	.0 54.0	55.0	83.0	82.0	84.0		
Estonia	47	.0 55.0	47.0	73.0	73.0	63.0		
Hungary	61	.0 60.0	63.0	101.0	101.0	108.0		
Latvia	61	.0 47.0	44.0	75.0	78.0	71.0		
Lithuania	47	.0 58.0	45.0	81.0	93.0	77.0		
Poland	58	.0 57.0	63.0	109.0	93.0	99.0		
Romania	n.	a. 65.0	64.0	n.a.	97.0	104.0		
Slovakia	55	.0 61.0	62.0	85.0	83.0	91.0		
Slovenia	42	.0 45.0	45.0	86.0	87.0	91.0		
Nordic	49	4 53.0	53.6	76.1	76.5	80.6		
Denmark	35	.0 44.0	45.0	70.0	71.0	78.0		
Finland	46	.0 50.0	51.0	74.0	78.0	79.0		
Sweden	60	.0 60.0	60.0	81.0	79.0	83.0		
Southern	56	.8 49.8	62.0	80.8	88.9	100.0		
Cyprus	29	.0 37.0	39.0	57.0	65.0	75.0		
Greece	49	.0 42.0	60.0	79.0	84.0	100.0		
Italy	58	.0 53.0	64.0	85.0	92.0	99.0		
Portugal	60	.0 53.0	63.0	77.0	82.0	94.0		
Spain	57	.0 47.0	60.0	77.0	88.0	103.0		

<sup>§</sup> Ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years.

Source: Eurostat, 2016.

<sup>§§</sup> Persons aged 65 years and over compared to persons aged less than 65 years. n.a. not available.