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REMINDER

ROLE OF EUROPEAN MOBILITY AND ITS IMPACTS IN NARRATIVES, DEBATES AND EU REFORMS

Indicators of Labour Markets and Welfare States in the European Union

WORKING PAPER

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ROBERT SCHUMAN CENTRE FOR ADVANCED STUDIES

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Indicators of labour markets and welfare states in the European Union

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Contents

Abstract

This working paper[1] provides an overview and basic descriptive analysis of key indicators of national labour markets and welfare states in the European Union (EU). The overview of labour market indicators uses standard variables and "off-the-shelf" data provided by Eurostat and the OECD. Our discussion of national welfare states draws on a range of indicators specifically coded for the REMINDER project and compiled into a new dataset called "Social Protection in Europe Database" (SPEUDA). The aim of the deliverable is to support two different work packages within the larger REMINDER research project by providing institutional and other indicators to be used in subsequent analyses. Work package 7 investigates the role of variations in formal and informal national institutions (specifically labour markets; welfare states; and normative attitudes to welfare, work, Europe, and immigration) in explaining divergent national policy positions among EU countries on reforming the current rules for the free movement of labour in the EU (see Ruhs and Palme 2018).[2] Work Package 4 investigates the fiscal effects of EU mobility and the consequences of differences in national institutions (see Nyman and Ahlskog 2018).[3]

[1] This working paper is a revised version of 'Deliverable 7.1 of the REMINDER project, first submitted in December 2017. The authors would like to thank Anton Ahlén, Carolina Janson, and Sverker Sjöstrand for excellent research assistance.

[2] A description of the larger project can be found here: https://www.reminder-project.eu/publications/work-packages/wp7-politics-and-institutions/

[3] See https://www.reminder-project.eu/publications/work-packages/wp4-fiscal-impacts/

Introduction

The free movement of workers is one of the fundamental freedoms of the European Union (EU). Under the current rules for "free movement", EU citizens can move and take up employment in any other EU country *and* – as long as they are 'workers' – enjoy full and equal access to the host country's welfare state benefits. In recent years, free movement has generated considerable political conflicts between and within EU member states. Some EU countries have argued for more restricted access for EU workers to welfare benefits, while many others have opposed these calls for new restrictions. It is important to analyse whether and how these political conflicts are related to variations in national institutions, including welfare state and labour market institutions, across EU countries (cf. Ruhs and Palme 2018).

The aim of this working paper is to conceptualize, operationalize, present, and discuss indicators for the measurement of national labour market and welfare state institutions among countries in the EU/EEA area. The paper is a 'building block' intended to support the overarching purpose of work packages WP7 and WP4 of the REMINDER project, namely, to analyse how institutional factors are related to the "national policy positions" of EU member states on reforming the free movement of labour in the European Union (WP7), as well as to the fiscal effects of EU immigration, including EU migrants' access and use of welfare state benefits and services (WP4). In this paper, we are developing indicators of welfare states and labour markets that, in the future, will be included in such broader analyses. While the conceptual framework presented in Ruhs and Palme 2018 (Deliverable 7.3) considers how national institutions may interact with the scale, composition and effects of migration/mobility and spill over to conflictual politics around free movement, the focus in this deliverable is solely on measuring the key features of national labour markets and welfare state institutions (what we call "formal institutions"). Indicators of informal institutions – specifically normative attitudes to welfare and work, Europe, immigration and free movement – are discussed in Mårtensson and Uba 2018 (Deliverable 7.2).

Labour markets

This part of the paper provides an overview of key indicators and basic differences of national labour markets and their regulations across EEA countries. The aim is not to provide a comprehensive discussion of labour markets in each Member State but to begin to identify major variations that may play a role in influencing and explaining the divergent national policy positions on free movement across EU member states (see the theoretical discussion in Ruhs and Palme 2018, especially section 3). We focus on two sets of characteristics of national labour markets: (i) work, pay and educational attainment of the working-age population; and (ii) labour market regulations. Our analysis considers cross-country differences in these indicators in the most recent year for which data are available (usually 2016 or 2015) as well as changes over time (comparing 2002 or another year in the early 2000s with 2016 or 2015).

The data used in this section are taken from two major and widely used sources. Our analysis of work, pay and education relies on data from the EU Labour Force Survey (EU-LFS) as provided by 'Eurostat', the statistical office of the European Union (see http://ec.europa.eu/eurostat/data/database). The EU Labour Force Survey (EU-LFS) is the largest European household sample survey, providing quarterly and annual data on labour participation of people aged 15 and over and on persons outside the labour force. It covers 33 countries, providing Eurostat with data from national labour force surveys: the 28 Member States of the European Union, three EFTA countries (Iceland, Norway and Switzerland), and two EU candidate countries, i.e. the Former Yugoslav Republic of Macedonia and Turkey.[4] Our analysis in this section includes all EU member states as well as the three EFTA countries.

The analysis of national labour market regulations relies on relevant data from Eurostat (e.g. on minimum wages) as well as on indicators of union density, collective bargaining, and employment protection provided by the OECD (see http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm). The

[4] More detailed information about the EU-LFS can be found here: http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey

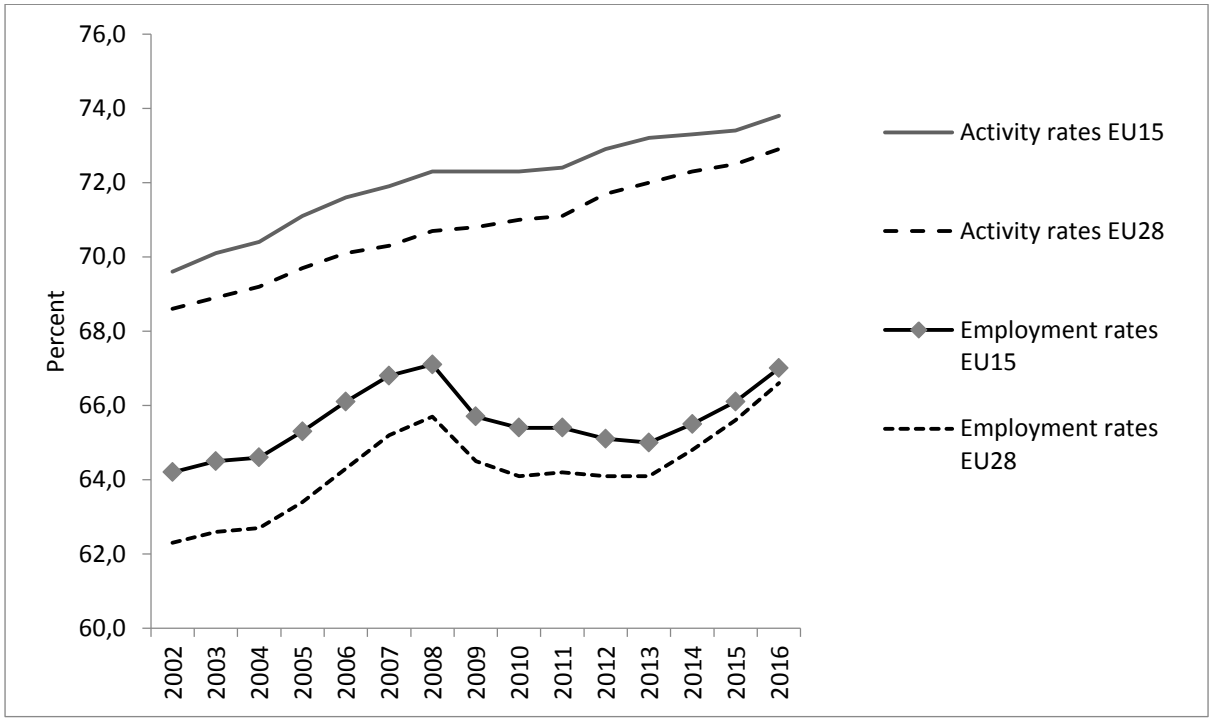
OECD's employment protection indicators are well known and widely used in the comparative analyses of national labour market regulations.

Work, pay and skills

Labour market participation and employment: EU28 and EU15

Considering the EU as a whole, activity rates (defined as the share of the working-age population that is economically active, i.e. employed or unemployed) have increased considerably from under 70 percent in the early 2000s to over 72 percent in 2016. As shown in Figure 1, activity rates in the EU15 have been higher than in other EU member states throughout this period. Activity rates stabilised (but did not decline) during 2008-2011, the three years following the onset of the financial crisis. Employment rates (defined as the share of the working-age population in employment), also increased since the early 2000s, but they experienced considerable declines during 2008-2013 before recovering to pre-crisis levels of about 65% in 2015-2016.

Figure 1: Activity rates and employment rates, EU28 and EU15, 2002-2016



Source: EU-LFS (Eurostat)

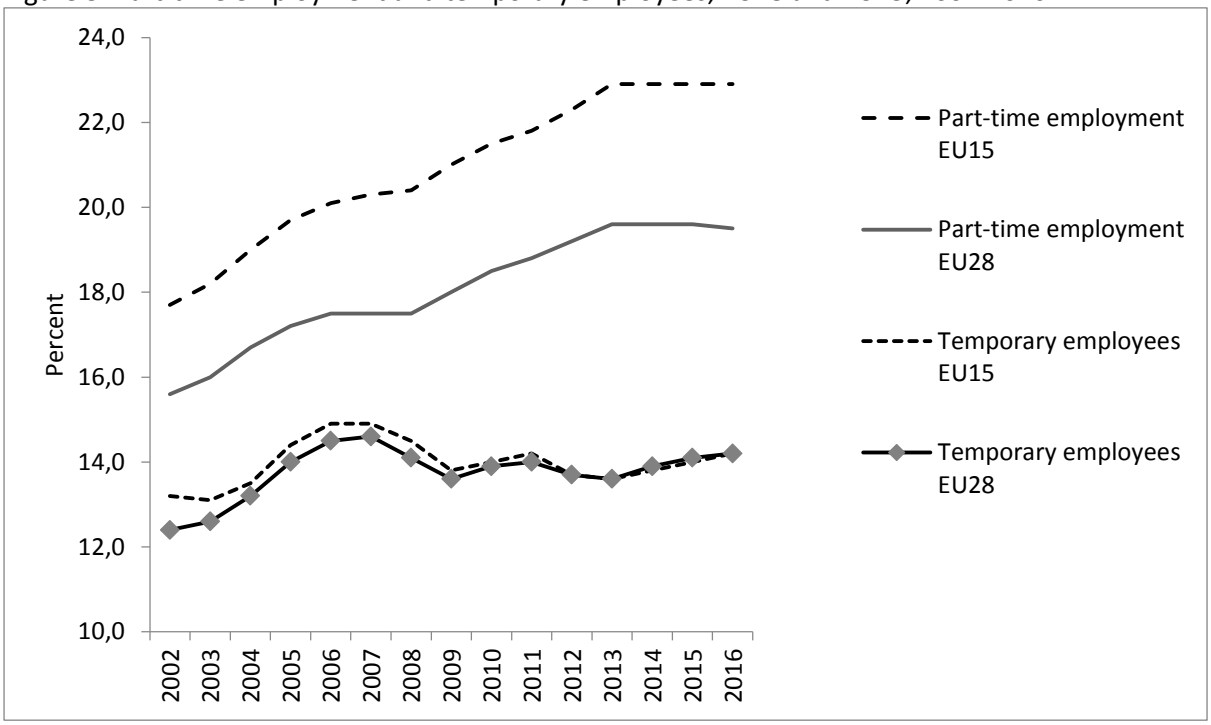
As expected, the economic crisis led to a considerable increase in the average unemployment rate, from 7 percent in 2008 to 11 percent in 2013 (see Figure 2). As European economies have begun to recover, average unemployment rate has been declining over the past few years but, at over 8 percent in the EU28 (and over 9 percent in the EU15), in 2016 it was still above pre-crisis levels. Self-employment rate (defined as the share of people in employment who are self-employed) has remained relatively stable at around 14 percent on average. Self-employment has been more common in the new EU member states than in the EU15 countries (see Figure 2).

Figure 2: Unemployment rates and self-employment rates, EU28 and EU15, 2002-2016

Source: EU-LFS (Eurostat)

In contrast to the relatively stable share of self-employment throughout the EU, part-time employment has increased considerably since the early 2000s, in both the EU15 and the EU28 as a whole. As shown in Figure 3 below, part-time employment in the EU15 has been considerably higher than in the EU28 and the gap has grown over time. The share of temporary employees (defined as employees with contracts of a limited duration) increased in the early/mid 2000s, before declining and remaining relatively stable since 2009, at about 13 percent.

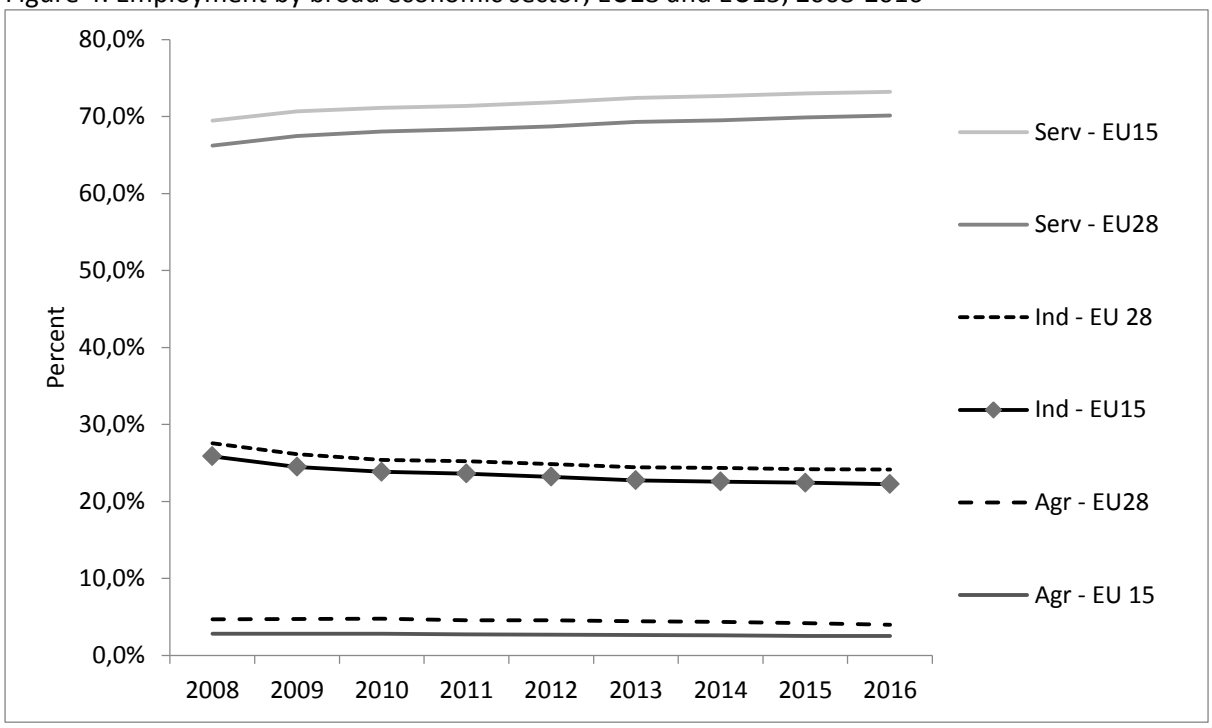
Figure 3: Part-time employment and temporary employees, EU28 and EU15, 2002-2016



Source: EU-LFS (Eurostat);
Note: The figure shows part-time employment (and temporary employees) as a share of total employment (and all employees).

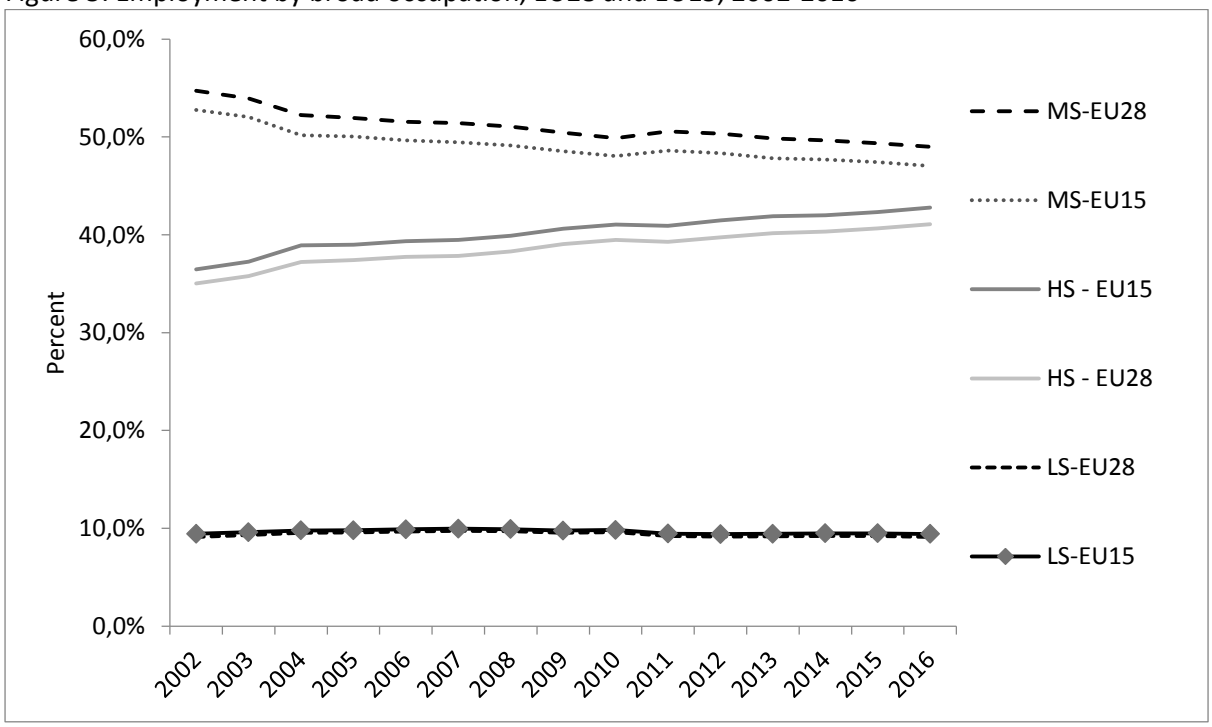
Figures 4 and 5 provide "big-picture" overviews of changes in employment by broad economic sector and occupation. Over two-thirds of employment in the EU is in the service sector, a quarter in industry, and around 5 percent in agriculture. As expected, employment in services increased over time, industrial employment declined, and agricultural employment remained relatively constant. Compared to the EU15, employment in the more recent EU member states is characterised by higher shares of agriculture and industry and lower shares in the service sector. As expected, employment in the highest-skilled occupations increased while employment in medium (including some lower-skilled) occupations has declined since the early 2000s. Interestingly, the share of people in the lowest-skilled occupations (i.e. elementary occupations) has remained constant at around 10 percent. As expected, compared to the recent EU member states, in the EU15 there are greater shares of people in higher-skilled jobs and lower shares in medium/lower-skilled jobs. The share of employed people in the lowest skilled jobs is very similar in the EU15 and the rest of the EU (as a group).

Figure 4: Employment by broad economic sector, EU28 and EU15, 2008-2016



Source: EU-LFS (Eurostat)

Figure 5: Employment by broad occupation, EU28 and EU15, 2002-2016



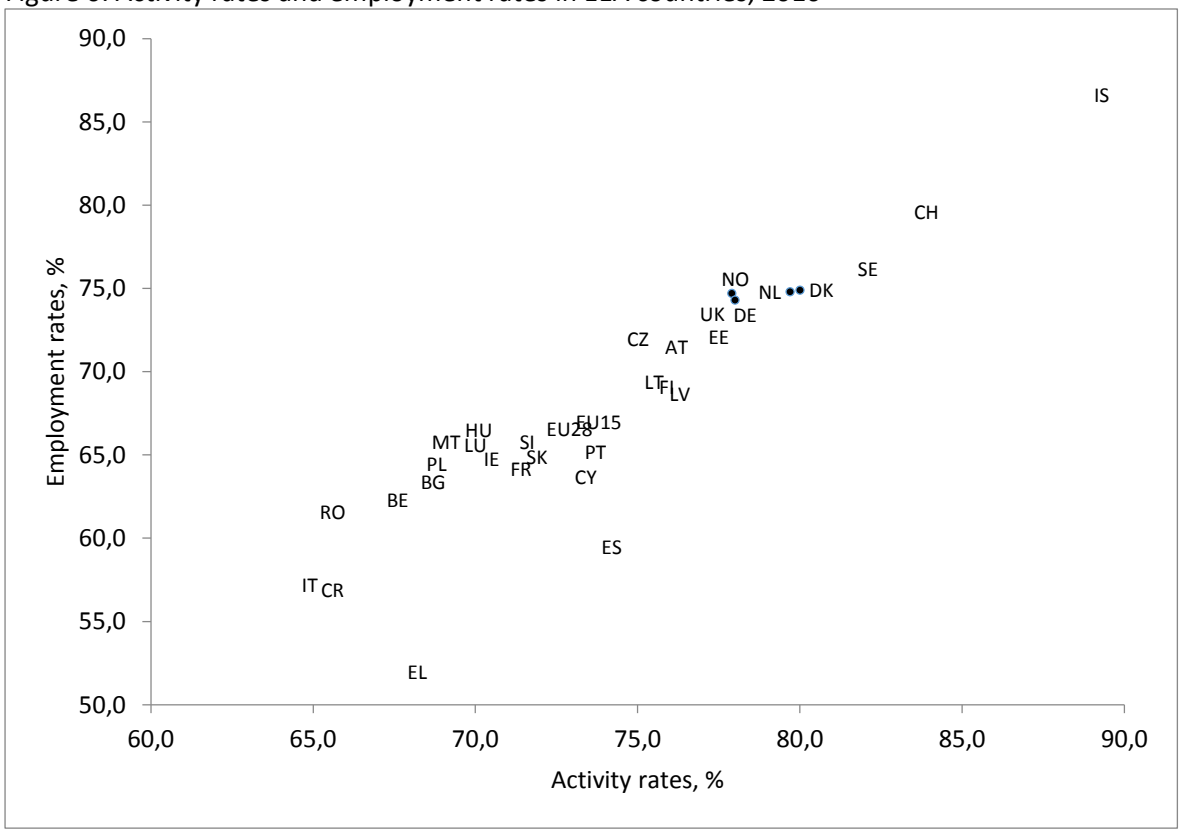
Source: EU-LFS (Eurostat)

Note: HS ("high-skilled" occupations) includes occupations with ISCO08 codes 1-3 (Managers; Professionals; and Technicians and associate professionals); MS ("medium/lower-skilled" occupations) includes occupations with ISCO08 codes 4-8 (Clerical support workers; Service and sales workers; Skilled agricultural, forestry and fishery workers; Craft and related trades workers; and Plant and machine operators and assemblers); LS ("lowest-skilled" occupations) includes occupations with ISCO08 code 9 (Elementary occupations).

Labour market participation and employment: Cross-country variations

These aggregate labour market participation and employment figures for the EU as whole mask some considerable variations across EEA countries. As shown in Figure 6, activity rates range between 65 and 90 percent and employment rates range between 52 and 87 percent of the working age population. In the EU, the Nordic countries (Sweden, Denmark, and Norway) as well as the Netherlands, have the highest activity and employment rates although not as high as Switzerland and especially Iceland. The lowest employment rates are found in Southern Europe (Italy, Spain, Croatia and Greece). While most countries experienced increases in activity and employment rates between 2002 and 2016 (see Appendix Figures A1 and A2), employment rates declined during this period in Greece (from 58% to 52%), Cyprus (from 69% to 64%) and Portugal (from 69% to 65%), and to lesser extent also in Norway and Denmark.

Figure 6: Activity rates and employment rates in EEA countries, 2016



Source: EU-LFS (Eurostat)

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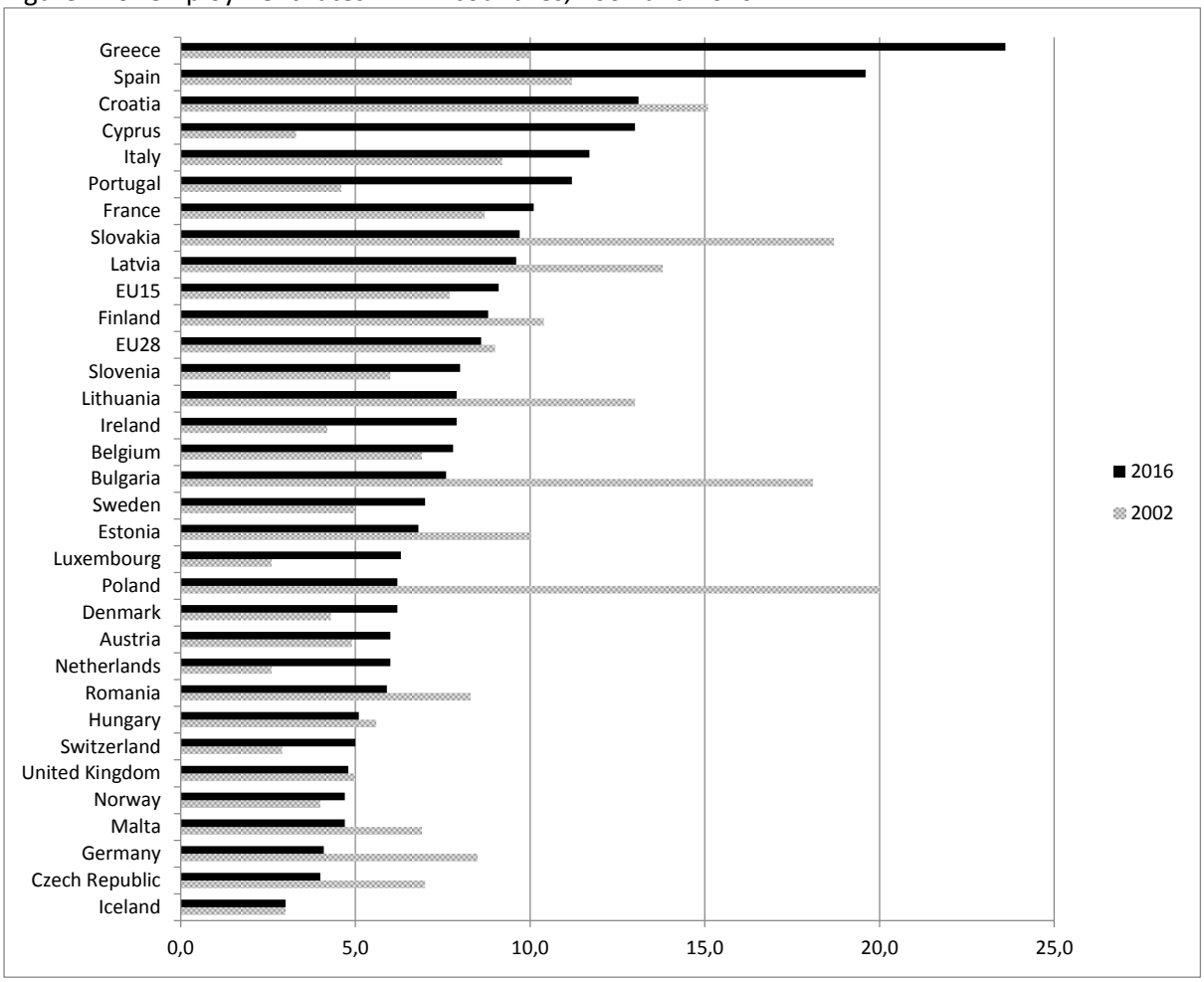
It follows from Figure 6 above that there are also considerable differences in unemployment rates across EEA countries. Importantly, most of the EEA countries with the highest unemployment rates in 2016 were among the EU15 including Greece (just under a quarter of the active population unemployed in 2016), Spain (just under a fifth), Italy (12 percent), Portugal (11 percent) and France (10 percent). In these four EU15 countries, unemployment has increased considerably since 2002. In contrast, in the early 2000s, the countries with the highest unemployment rates were all East European countries including Poland (20 percent in 2002), Slovakia (19%) and Bulgaria (17%). These East European countries experienced significant reductions in their unemployment rates over the past 15 years, despite the global economic crisis that began in 2008.

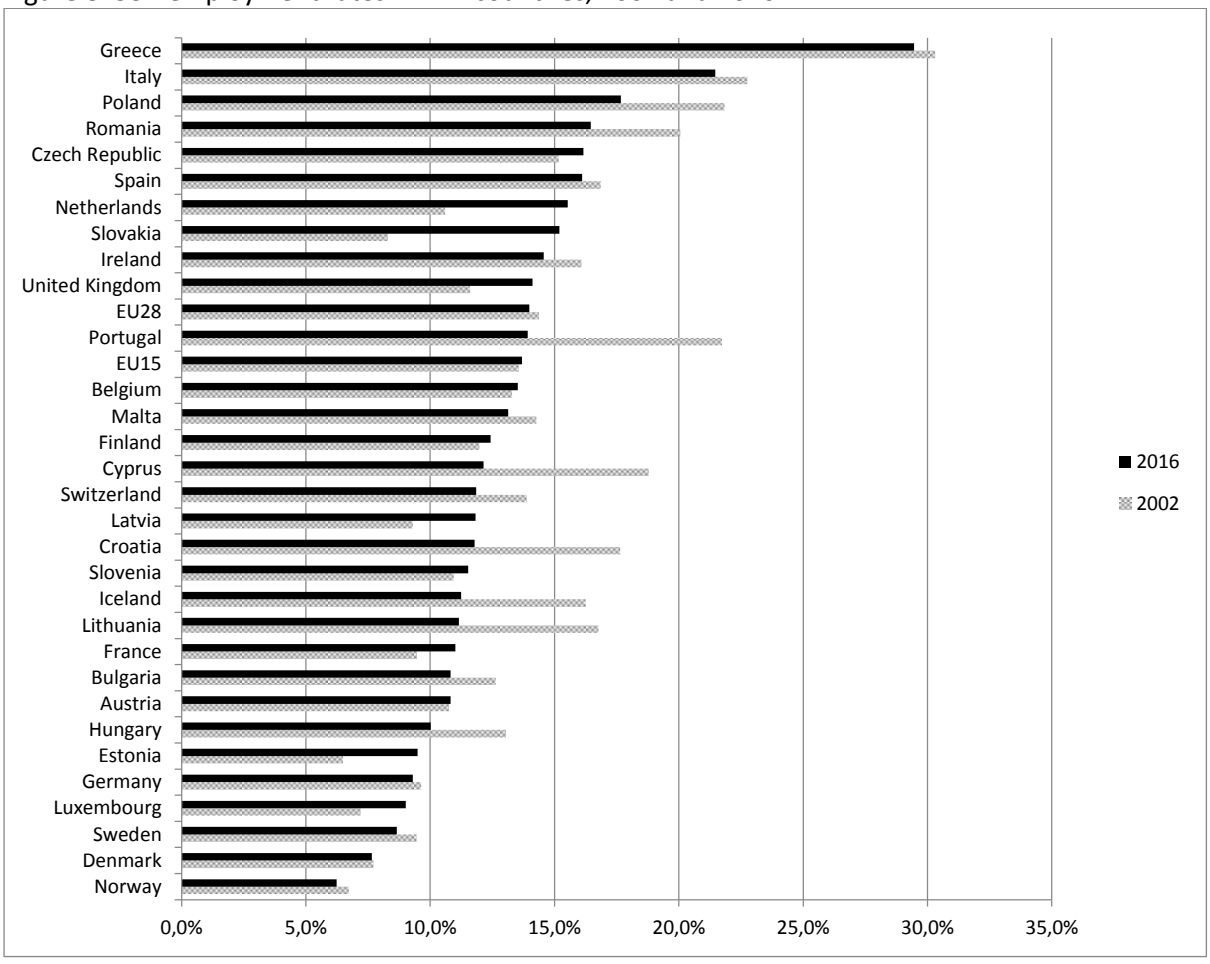
Figure 7: Unemployment rates in EEA countries, 2002 and 2016



Source: EU-LFS (Eurostat)

There are also considerable variations across EU member states with regard to the relative importance and trends of "atypical employment" such as self-employment, part-time employment and temporary employment. As shown in Figure 8 below, self-employment ranges from just over 5 percent (in Norway) to just under 30 percent (in Greece). The highest self-employment rates can be found in Southern-European countries (Greece, Italy and Spain) as well as some of the larger East European countries (including Poland and Romania where self-employment declined considerably during 2002 and 2016). Three Nordic countries – Norway, Denmark and Sweden – had the lowest self-employment rates in the EEA in 2016.

Figure 8: Self-employment rates in EEA countries, 2002 and 2016

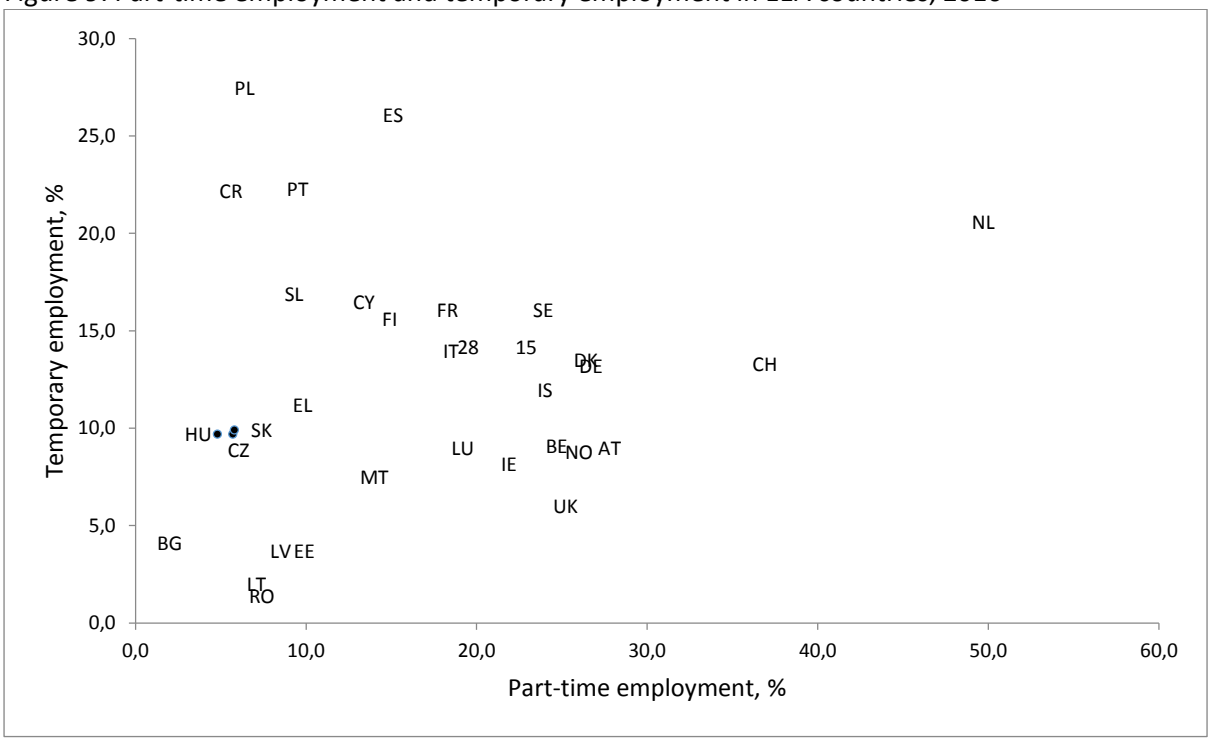


Source: EU-LFS (Eurostat)

Part-time employment and temporary employment rates mostly range between 0-30 percent (see Figure 9 below). The exceptions are Switzerland and the Netherlands, countries with very high part-time employment rates (just under 40% and 50%,

respectively). Most EU15 countries have considerably higher part-time employment rates than the more recent member states. In most EU15 countries, part-time employment has grown considerably since the early 2000s. In contrast, it declined in some of the larger East European countries including Poland and Romania (see Appendix Figures A3 and A4).

Figure 9: Part-time employment and temporary employment in EEA countries, 2016

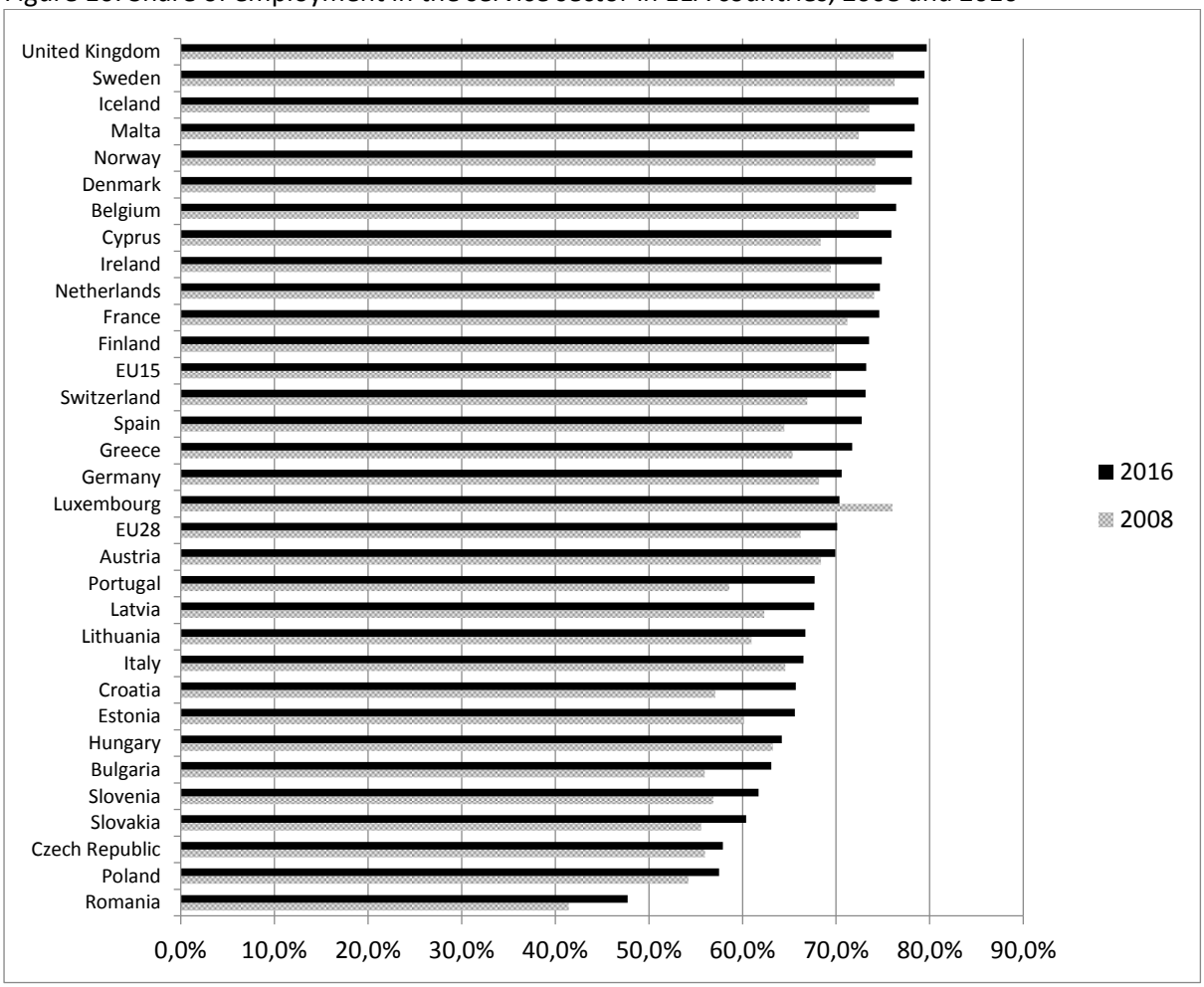


In most of the EU15 countries, more than 70 percent of employment is in the service sector (just under 80 percent in the UK, Sweden, Norway and Denmark). In contrast, services account for less than 60 percent of employment in many of the East European member states (less than 50 percent in Romania and just under 60 percent in Poland). The share of services in total employment has been rising in all EEA countries except for Luxembourg (see Figure 10). Romania, Greece and Poland have the highest agricultural employment shares (21 percent, 12 percent, and 10 percent, respectively) – compared to an average 3 percent for the EU15 as a group.

There is much less of an East-West divide when it comes to the share of employment in the lowest-skilled occupations (defined here as covering elementary occupations only). As shown in Figure 11, EU15 countries can be found both at the top of the ranking of the low-skilled employment shares in the EEA (including Spain, Denmark and Italy) as well as at the

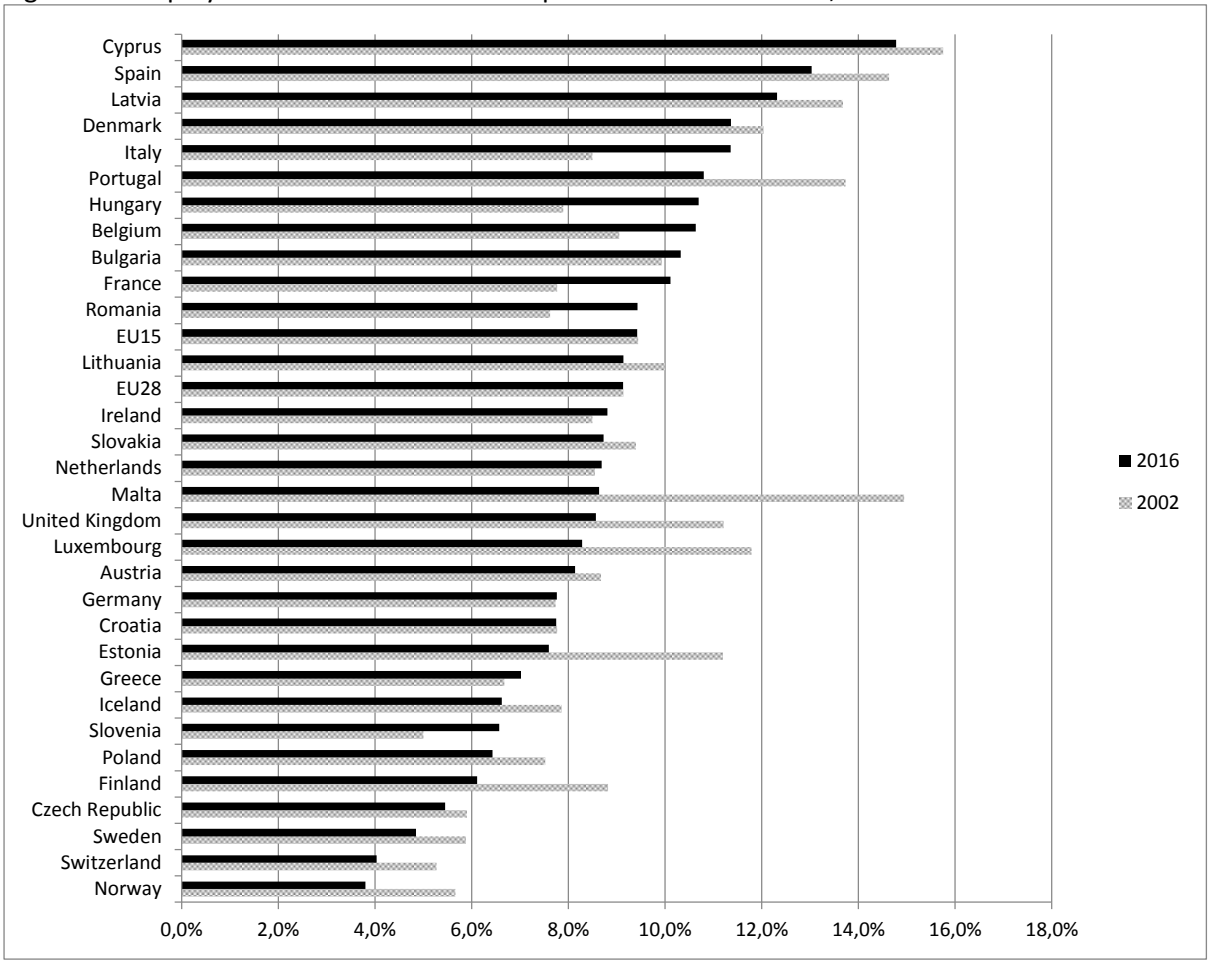
bottom (Norway and Sweden). While the share of low-skilled employment remained constant for the EU as a whole, there were some large changes across different countries, with low-skilled shares declining in some countries (e.g. in Portugal, Malta, Estonia and Finland) and rising in some others (e.g. in Italy, Hungary and France).

Figure 10: Share of employment in the service sector in EEA countries, 2008 and 2016



Source: EU-LFS (Eurostat)

Figure 11: Employment in lowest-skilled occupations in EEA countries, 2002 and 2016

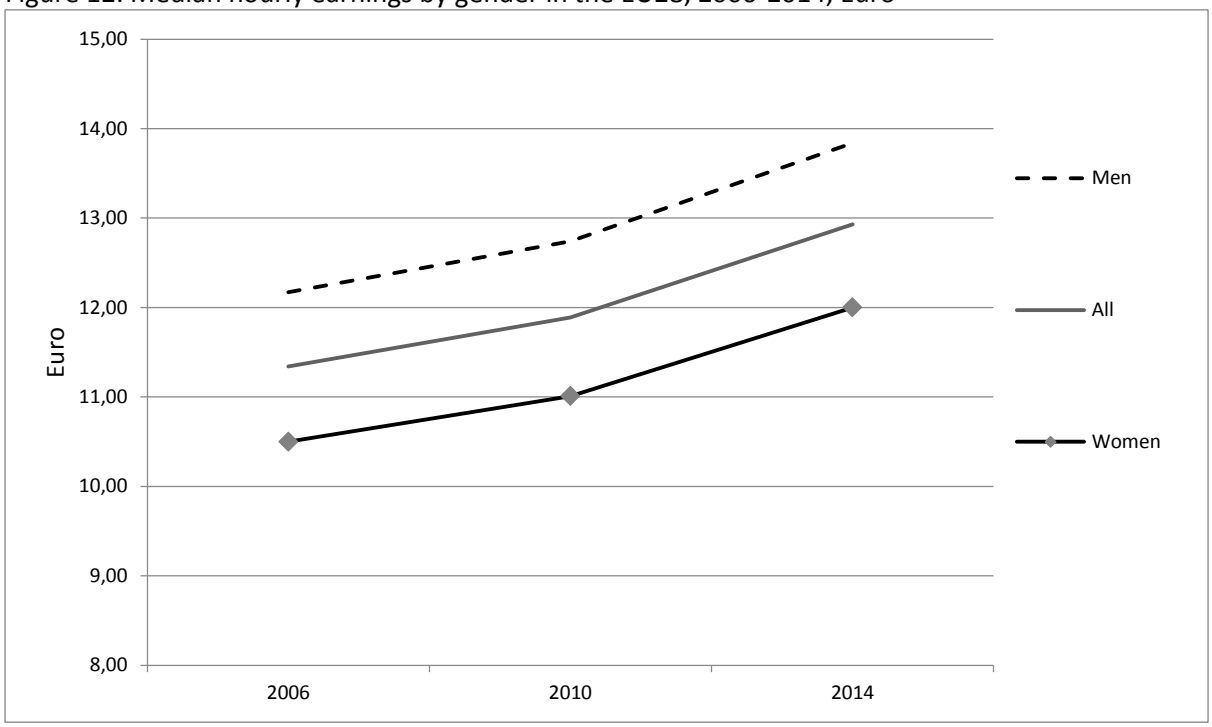


Source: EU-LFS (Eurostat)

Earnings and low-wage labour markets

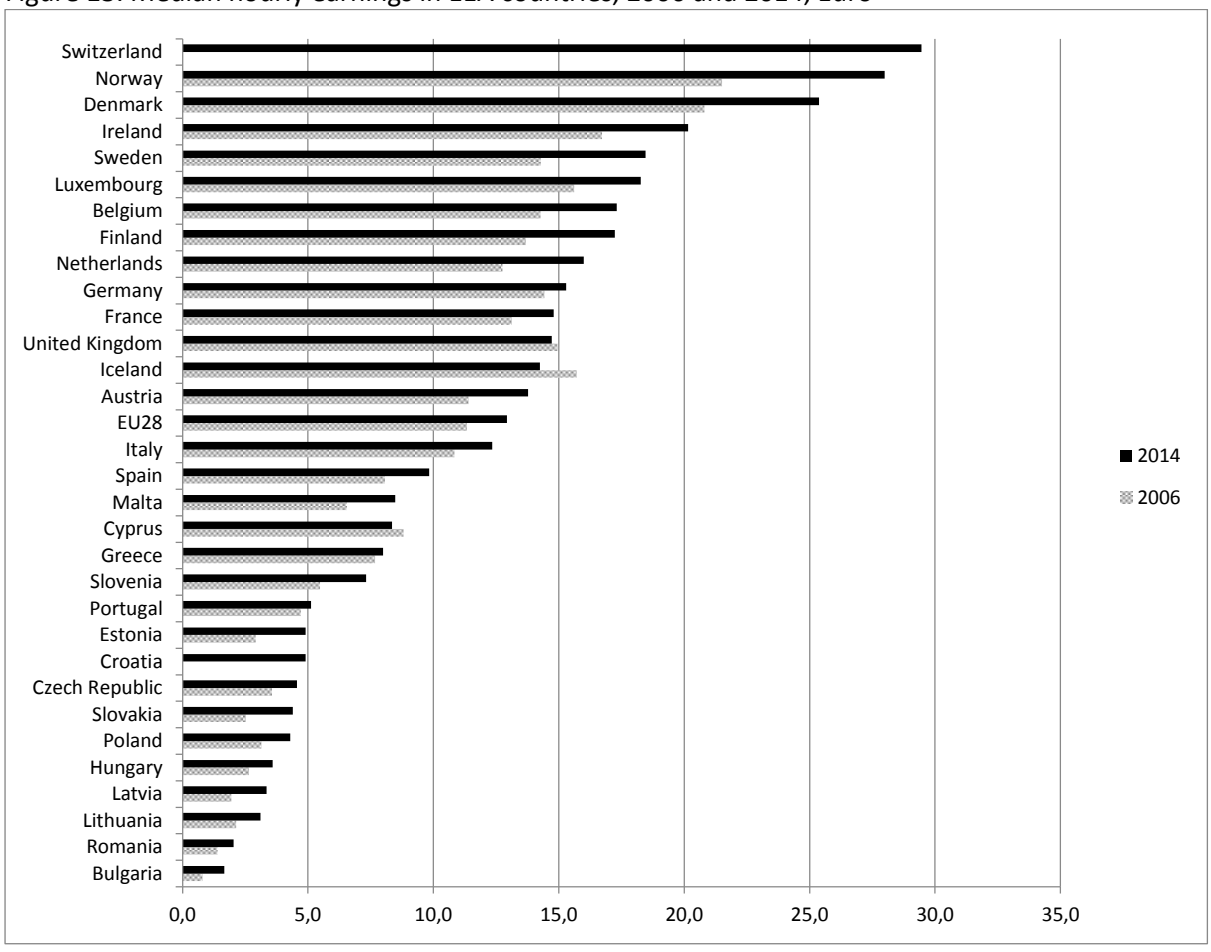
Considering the EU28 as a whole, nominal median hourly earnings increased by about 14 percent from 2006 to 2014 (see Figure 12). The gap between hourly earnings of men and women remained roughly constant during this period, at about 14 percent. Figure 13 makes clear the vast differences in hourly earnings across EEA countries. Hourly earnings in Denmark (at the top of the ranking) are 15 times greater than in Bulgaria (at the bottom of the ranking). Within the EU15, hourly earnings are lowest among the Southern European countries and highest among the Nordic countries as well as Ireland. In most EEA countries, nominal earnings have grown during 2006 and 2016 but there are some exceptions including the UK, Iceland and Cyprus (which all recorded small declines in nominal earnings). The earnings gap between men and women varies considerably across countries, from over 25% in Estonia to -2.5% (i.e. women having higher median hourly earnings than men) in Croatia (see Figure 14).

Figure 12: Median hourly earnings by gender in the EU28, 2006-2014, Euro



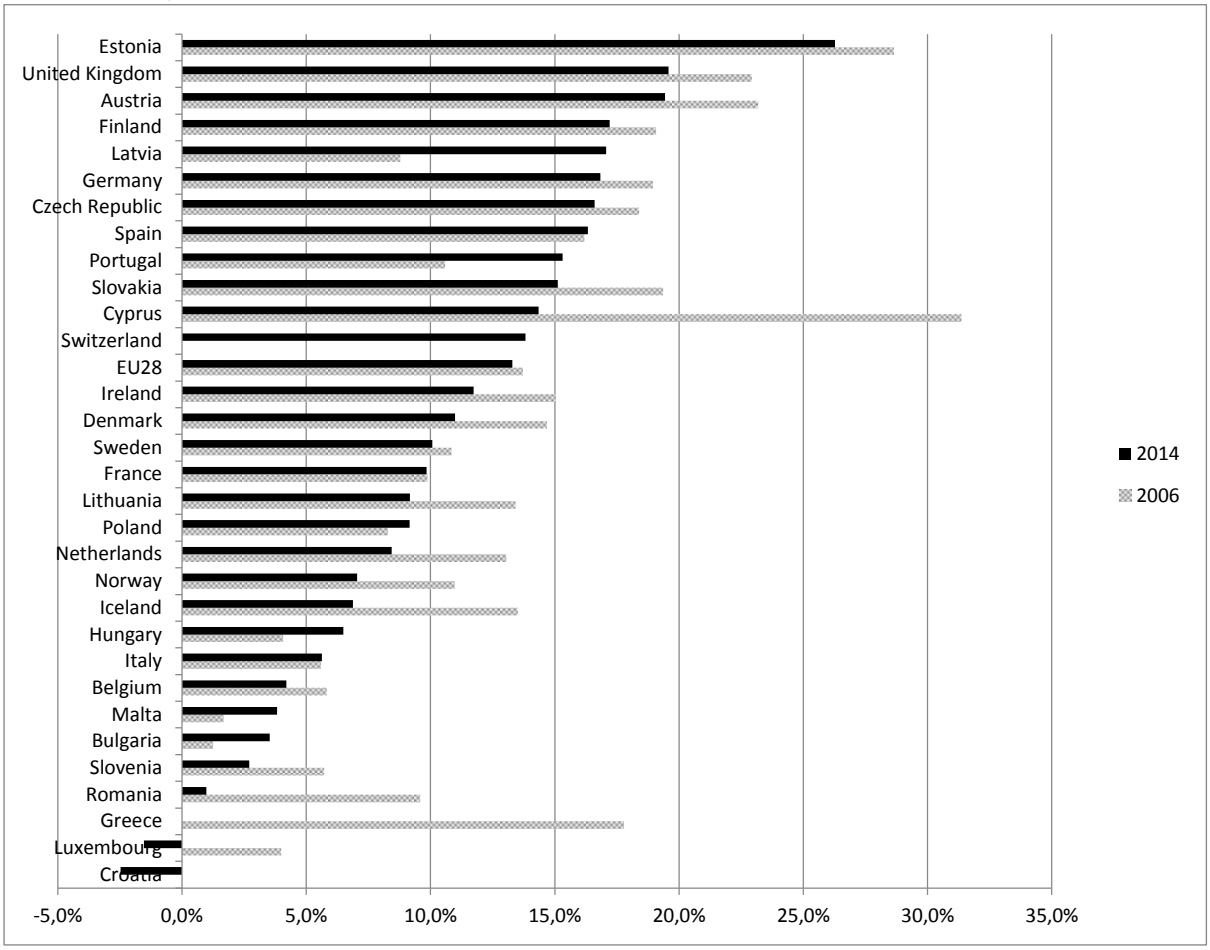
Source: EU-LFS (Eurostat)

Figure 13: Median hourly earnings in EEA countries, 2006 and 2014, Euro



Source: EU-LFS (Eurostat)

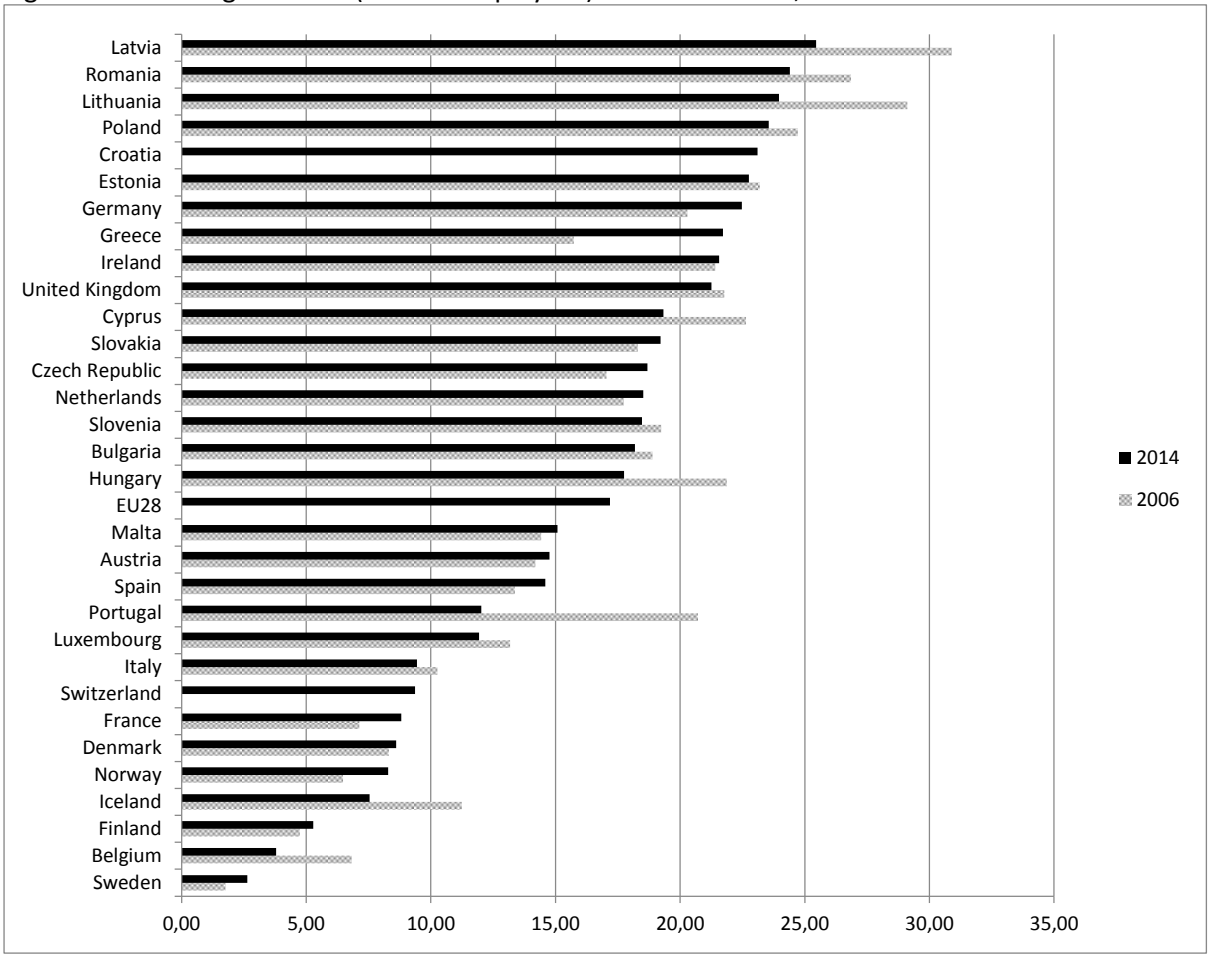
Figure 14: Gap between median hourly earnings of men and women, as % share of men's earnings, EEA countries, 2006 and 2014



Source: Based on data from EU-LFS (Eurostat)

Low wage earners are defined as employees who earn less than two thirds of national median hourly earnings. Using this definition, the share of low-wage earners in 2016 was highest in Latvia, Romania and Lithuania (all about 23%) and lowest in Sweden, Belgium and Finland (all below 6 percent). The EU15 countries with the highest shares of low-wage earners are Germany, Greece, Ireland and the UK (all about or just under 22 percent in 2016). While many countries experienced a decline in the share of low-wage workers, some countries, including Greece and Germany, recorded considerable growth in the relative size of the low-wage labour market during this period.

Figure 15: Low-wage earners (% of all employees) in EEA countries, 2006 and 2014

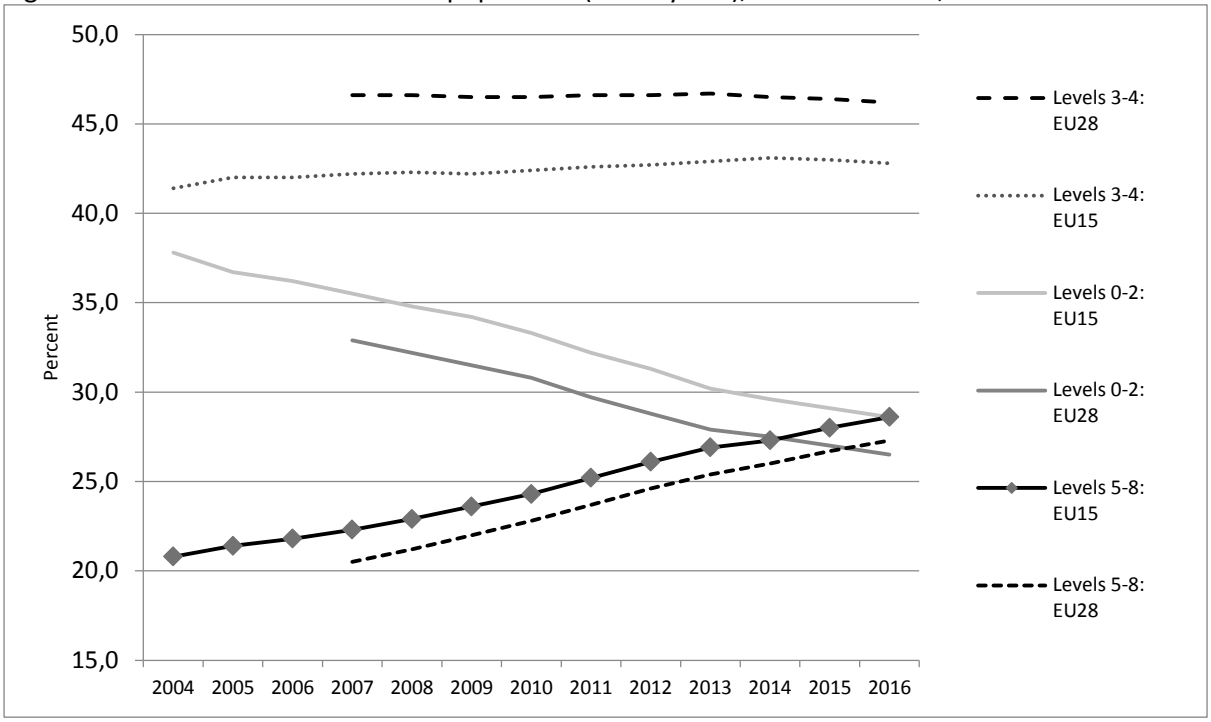


Source: Based on data from EU-LFS (Eurostat)

Educational attainment

Across the EU as a whole, the share of the working-age population with lower secondary education or less has been declining while the share with tertiary education has been increasing over time (see Figure 16 below). In 2015-16 the share of the population with tertiary education surpassed the share with lower secondary education or less for the first time. There are, however, large differences in educational attainment across EEA countries. As shown in Figure 17, the shares of population with low levels of education are lowest in selected East European countries (the Czech Republic, Lithuania, Slovakia and Poland) and highest among selected Southern European EU15 countries (Portugal, Malta, Spain and Italy). The two countries with the highest shares of people with tertiary education are the UK and Ireland (38 percent in both countries) while the lowest shares of highly educated people can be found in Romania and Italy (around 15 percent, see Figure 18).

Figure 16: Educational attainment of population (15-65 years), EU28 and EU15, 2004-2016



Source: EU-LFS (Eurostat)

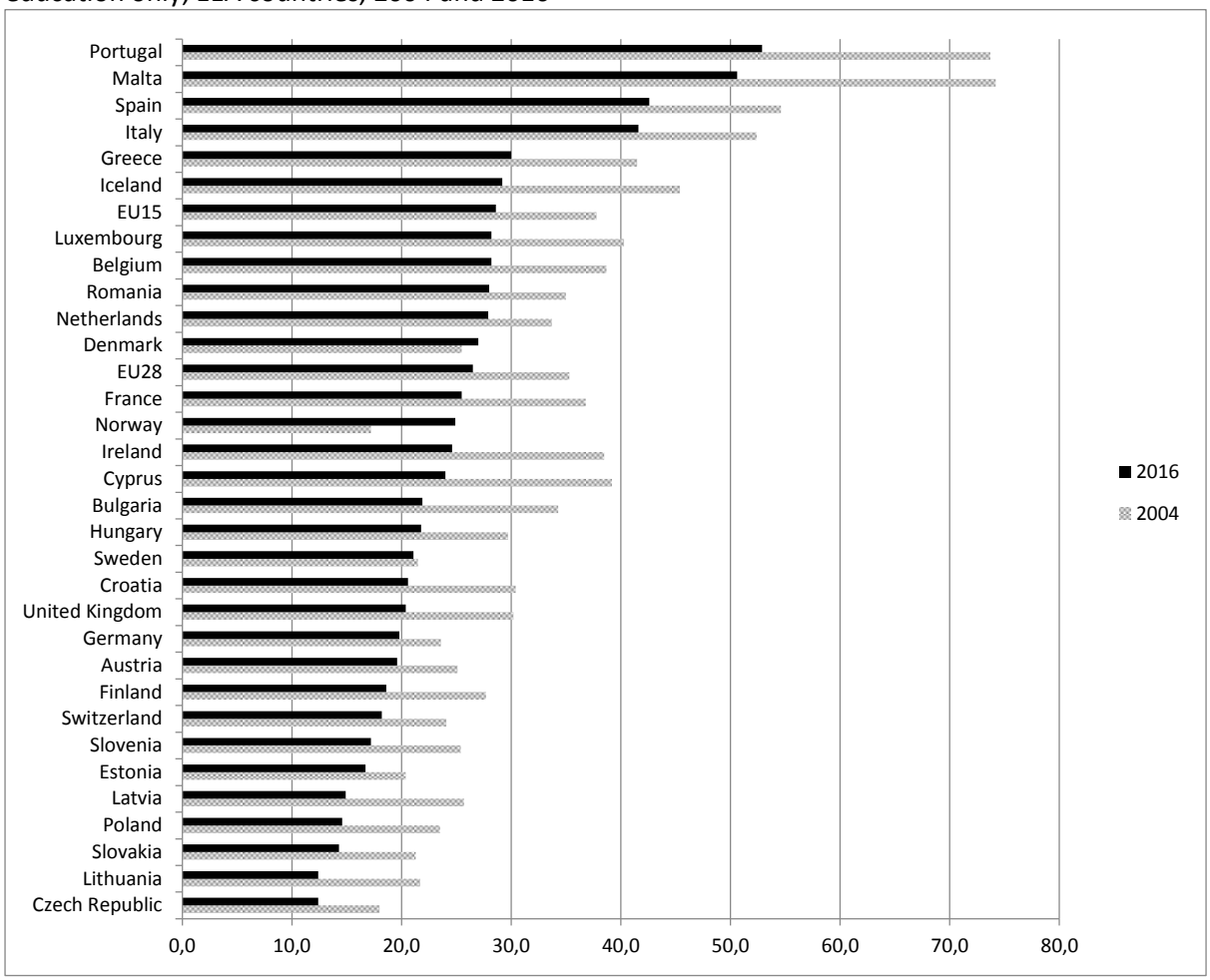
Notes:

Levels 0-2: Less than primary, primary and lower secondary education

Levels 3-4: Upper secondary and post-secondary non-tertiary education

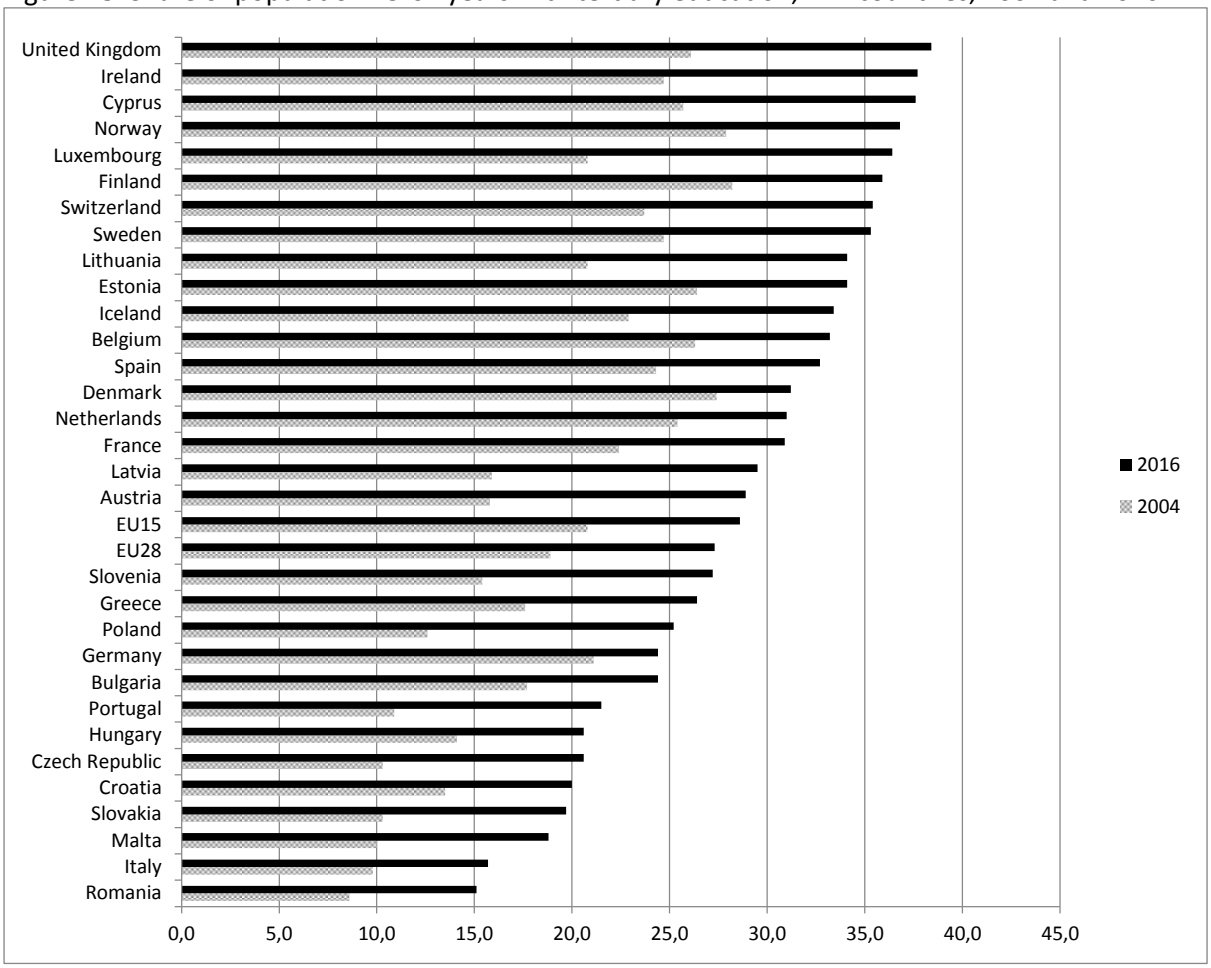
Levels 5-8: Tertiary education

Figure 17: Share of population 15-64 years with less than primary, primary or lower secondary education only, EEA countries, 2004 and 2016



Source: Eurostat

Figure 18: Share of population 15-64 years with tertiary education, EEA countries, 2004 and 2016



Source: Eurostat

Regulations of the labour market and employment relations

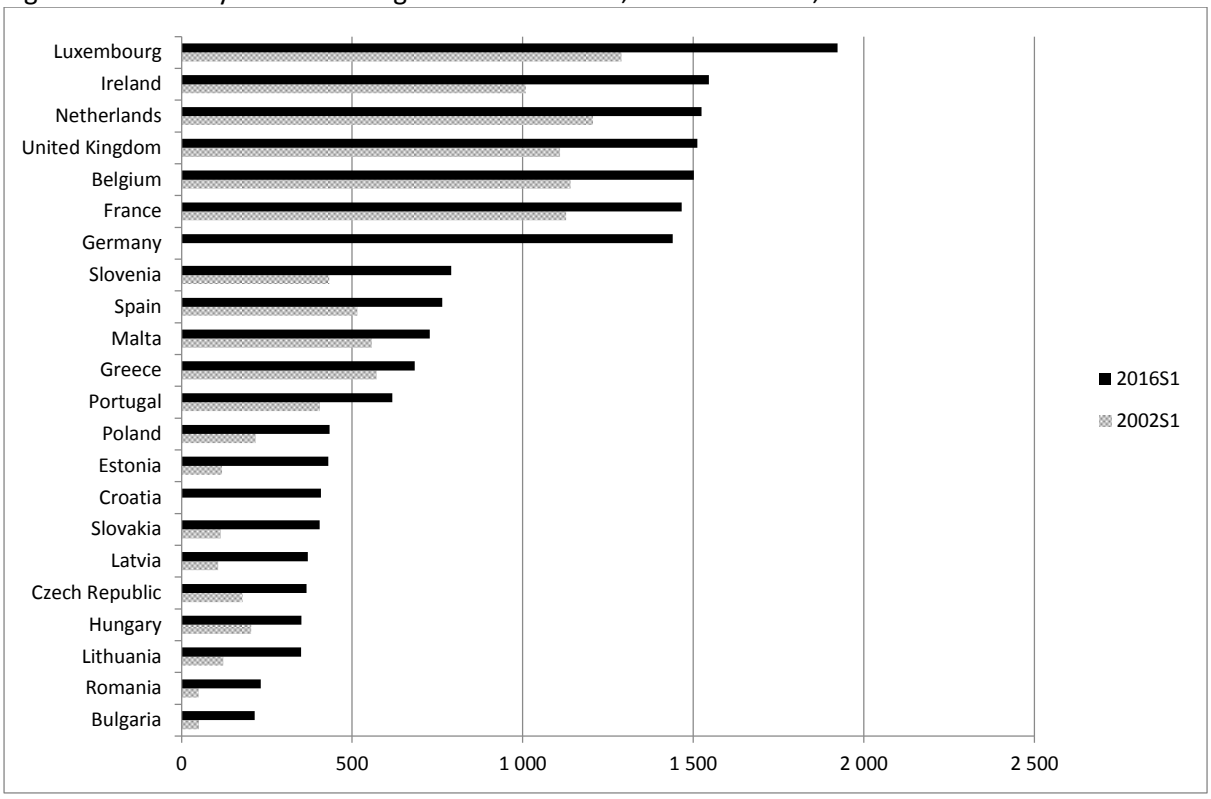
Labour market regulations can have important impacts on employer demand for labour including migrant workers (Ruhs and Palme 2018). We briefly review four major types of indicators of labour market regulations in EEA countries: minimum wages; collective bargaining; trade union density; and composite employment protection indicators compiled and provided by the OECD.

Minimum wages

The majority but not all EEA countries use minimum wages to help regulate their national labour markets. There are no minimum wages in Denmark, Italy, Cyprus, Austria, Finland, Sweden, Iceland, Norway and Switzerland. Given the variation in hourly earnings it is not surprising that there is also considerable variation in minimum wages across countries, both

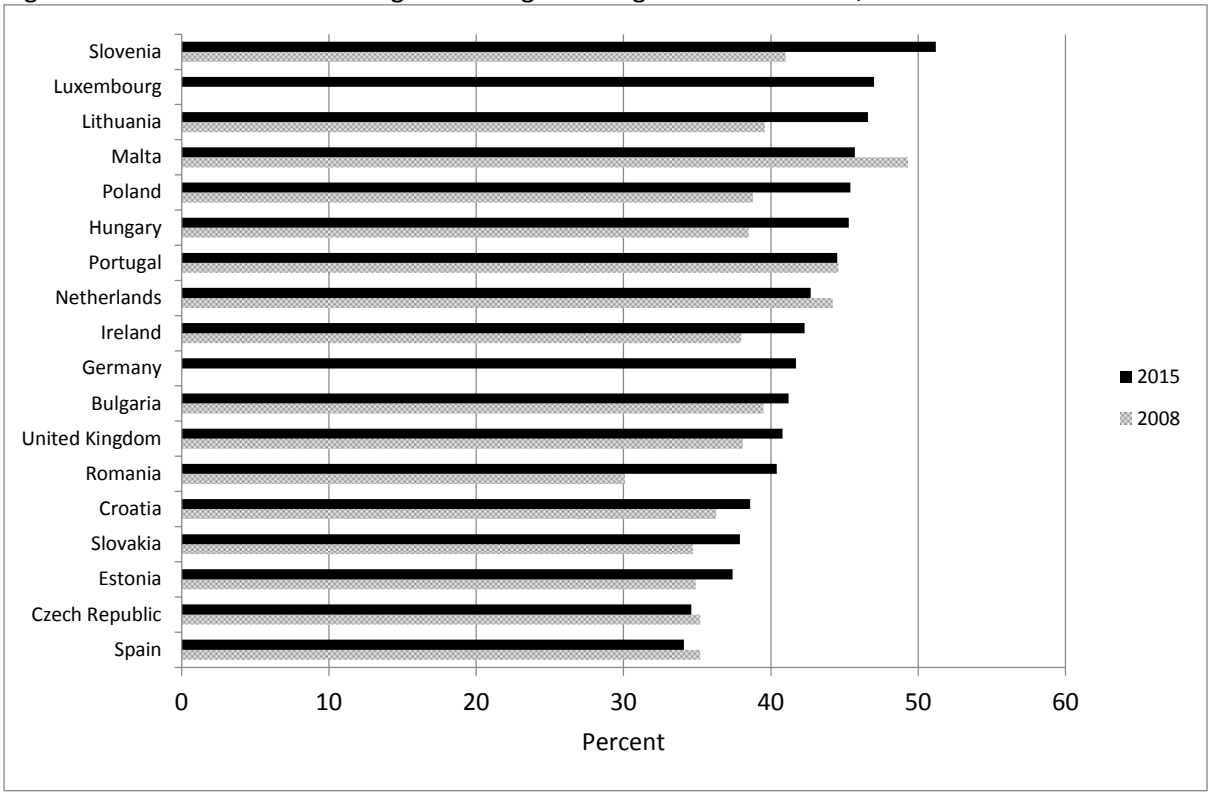
in terms of pay in Euro unadjusted for differences in living costs (see Figure 19 below) and Purchasing Power Standards (see Appendix Figure A10). Considering PPS, monthly minimum wages in Germany and the Netherland are about three and a half times larger than in Romania and Bulgaria. The gap is even larger when considering nominal pay unadjusted for cross-country differences in living costs (Figure 19). As shown in Figure 20, the share of the minimum wage in average earnings in some of the largest EU15 countries is fairly similar (at just over 40 percent in the UK and Germany) although it is lower in Spain (34 percent).

Figure 19: Monthly minimum wage in EEA countries, 2016 and 2002, Euro



Source: Eurostat

Figure 20: Share of minimum wage in average earnings in EEA countries, 2008 and 2015



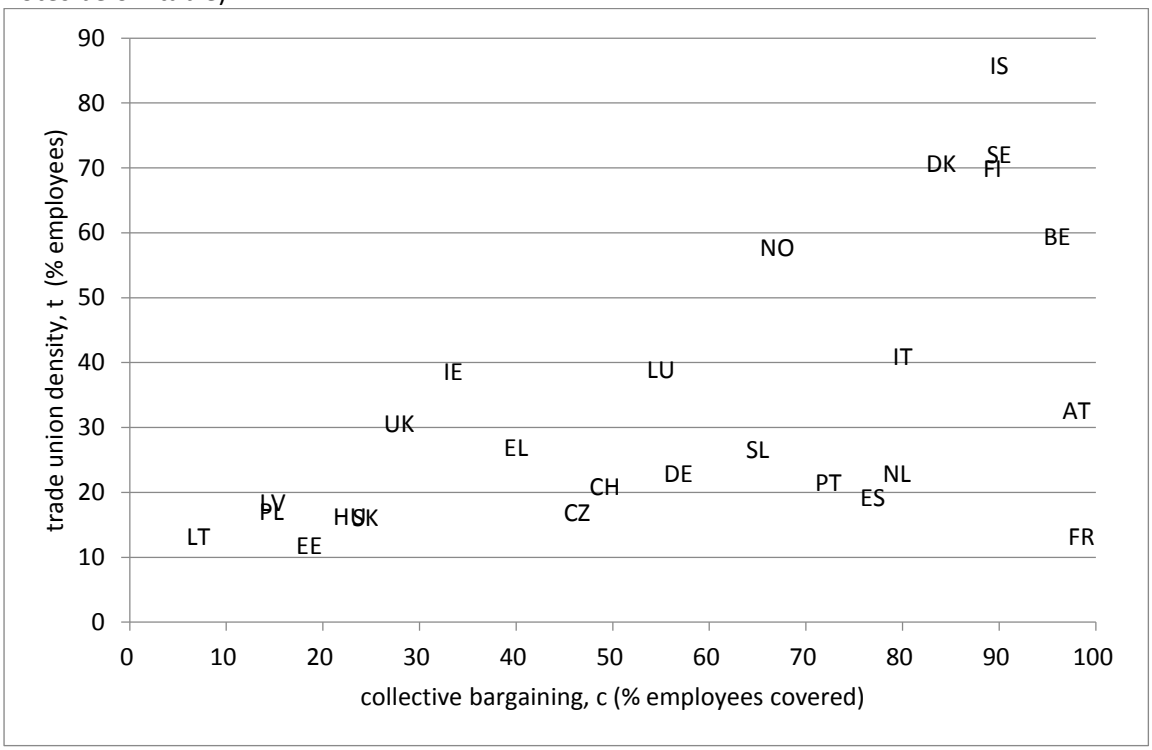
Source: Eurostat

Trade unions and collective bargaining

There are large differences in trade union density, defined as the share of employees who are union members, and collective bargaining, across EEA countries. As shown in Figure 21 below, union density ranges from 60-90 percent in the Nordic countries (which are classified as "coordinated market economies" within the "Varieties of Capitalism" literature, see e.g. Hall and Soskice 2001) to 10-20 percent in selected East European member states as well as France. Similarly, there are vast variations in the coverage of collective bargaining, i.e. the process of negotiating the terms of employment (e.g. pay, working hours, holidays etc.) between employers and workers, which is one of the major instruments of regulating employment conditions. While virtually all workers are covered by collective bargaining in France, Austria and Belgium, fewer than a third benefit from collective bargaining in the UK and Ireland (two "liberal market economies") as well as in various East European countries. Between the early 2000s and the mid-2010s, trade union density declined in all EEA countries except for Italy where it increased slightly (from 33 percent to 38 percent, see Appendix Figure A11). In most countries where collective bargaining was already high in the

early 2000s, it has remained high over the past 15 years (Appendix Figure A12). Collective bargaining declined in most East European countries as well as in some EU15 countries such as Greece, Ireland, the UK, and Germany (among others).

Figure 21: Collective bargaining and trade union density in EEA countries, 2015 (or as indicated in notes below table)



Source: OECD

Notes: Poland (c 2012, t 2014); Latvia (t 2012); Estonia (t 2012); Hungary (c 2014, t 2014); UK (t 2013); Ireland (c 2014, t 2013); Greece (c 2013, t2013); Switzerland (c 2014); Luxembourg (c 2014, t 2014); Slovenia (t 2013); Norway (c 2014); Finland (t 2016); Iceland (c 2016, t 2013); and France (c 2014, t 2014).

Employment protection indicators

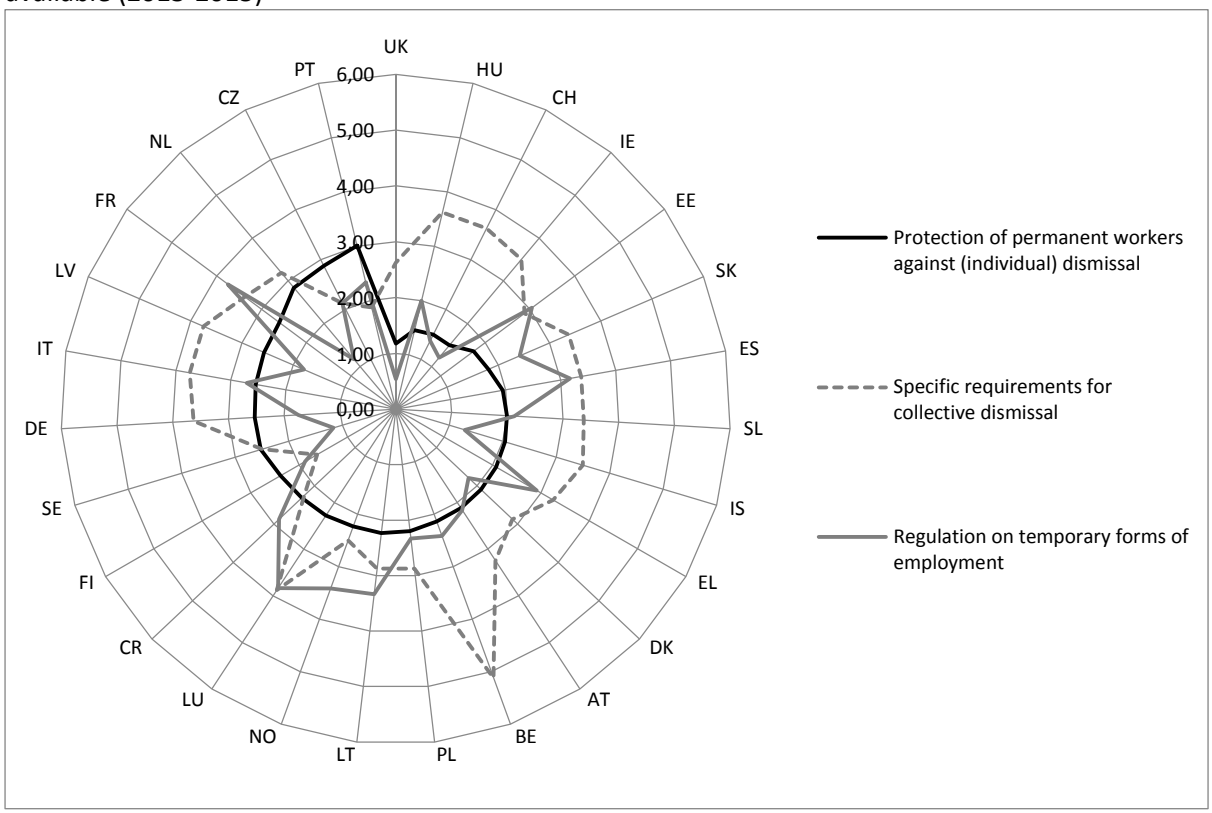
The OECD's indicators of employment protection measure the procedures and costs involved in dismissing individuals or groups of workers and the procedures involved in hiring workers on fixed-term or temporary work agency contracts. The indicators are based on 21 items covering three major and different aspects of employment protection regulations as they were in force on January 1st of each year. These include regulations of: the individual

dismissal of workers with regular contracts; collective dismissals; and temporary contracts.[5] The OECD indicators measure major although not all aspects of the flexibility of national labour markets (see the discussion in OECD 2013).

Figure 22 uses a spider diagram to display these three indicators for EEA member states, focusing on the most recent data available (2013, 2014, or 2015). The scale ranges from 0 (low protections, at the centre of the figure) to 6 (high protections, at the outer perimeter of the figure). Countries are ordered clockwise (and starting at "12:00 o'clock") in terms of the degree of "protection of permanent workers against (individual) dismissal", which is lowest in the UK, Hungary, Switzerland and Ireland, and highest in France, the Netherlands, the Czech Republic and Portugal. For most EEA countries, there was relatively little or no change in these employment protection indicators during 2002 and 2013 (see Appendix Figures A13-A15). There are some important exceptions from this pattern including, for example, Greece, Portugal and the Slovak Republic (where protections of workers on permanent and temporary contracts decreased considerably), as well as Germany and Sweden (where protections for temporary workers declined).

[5] A detailed explanation of the methodology used to compile the OECD's indicators of employment protection can be found here: http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection-methodology.htm

Figure 22: Indicators of employment protection in selected EEA countries, most recent years available (2013-2015)



Source: OECD

Notes: The data shown in this figure are based on the OECD's revised series of the three indicators (covering the years 2008-2015). The time series data in Appendix Figures A13-15 are based on "Version" 1 of these indicators (covering a longer time period including the early 2000s).

Welfare states

This second part of the paper provides an overview of basic differences of national welfare state institutions across EEA countries and presents a set of indicators on social protection programmes. As with the section on labour markets, the aim is to begin to identify key variations that may influence the national policy positions on free movement across EU member states. The section furthermore introduces a social protection data-base called SPEUDA ("Social Protection in Europe Database") that has been compiled for the REMINDER project. The Appendix to this paper contains a discussion of the sources of the original data and a description of the variables included in the SPEUDA database. The variables in SPEUDA are coded on the basis international documentations of social protection

programmes including Social Security Programs Throughout the World (SSPTW)[6] and Mutual Information Systems on Social Protection (MISSOC)[7], as well as on existing databases directly providing indicators in variable form such as Social Assistance and Minimum Income Protection Interim Dataset (SAMIP)[8].

Welfare state institutions are part of nation state building which suggests that any EU-regulations in this area are likely to generate tensions. Moreover, since the Treaty of Rome was established in the mid-1950s the diversity of welfare states organisation in the EU has increased (Palme et al 2009). Considering the various sources of welfare state chauvinism, there are different reasons for why this large welfare state variation is potentially a very important factor for explaining the divergent national policy positions on reforming free movement among EU member states (Ruhs and Palme 2018). First, the design of the welfare state is one of the determinants of the fiscal effects of immigration on the host country. Second, different welfare systems are associated with different underlying principles of benefit provision with variable degrees of (in)consistency with the idea of "reciprocity". Third, the current EU regulations of social rights for mobile workers are modelled on the continental European welfare state regime suggesting that countries with welfare states that differ from the Continental European welfare state model may be more likely to want to change the rules on free movement and access to benefits. Fourth, existing research on the characteristics of labour immigration policies in high-income countries suggests that there are significant policy co-variations across countries with different welfare states indicating some kind of interplay with both the labour market and immigration policy regimes.

These are good reasons for us to seek to identify key variations of welfare states across EU countries. We suggest that the key differences in social insurance programmes, family policies, and health care, including the funding of the systems, are likely to have a bearing on "free movement" conflicts. In order to define correctly the major "policy-models" in these policy areas, it is of critical importance to identify the underlying principles for benefit

[6] See https://www.ssa.gov/policy/docs/progdesc/ssptw/
[7] See http://missoc.org/MISSOC/INFORMATIONBASE/informationBase.jsp
[8] See http://www.spin.su.se/datasets/samip

provision. To measure key features of national welfare states, we will create a broad set of indicators based on an analysis of the social protection systems of the EEA countries (following Palme et al 2009, Esser et al 2013 and Palme 2015). This analysis will consider a range of factors such as the coverage, generosity, eligibility/contribution conditions, and the financing of provisions.

The first step is to conceptualise the underlying characteristics of welfare states/social protection systems. We then need to operationalize concepts in order to make them empirically observable. The third step is to identify and measure suitable indicators of key dimensions of welfare states across 28 EU Member States. The fourth step is to discuss the observed patterns. As the primary focus of this paper is on the conceptualization, measurement, and identification of labour market and welfare state indicators, we limit ourselves to a very basic discussion of the observed patterns. Future work (specifically, deliverable 7.4) will analyse how the indicators of formal institutions identified in this paper are related to informal institutions (see Mårtensson and Uba 2018), and how they vary across EU countries.

The regime approach

In comparative welfare state research, what has been labelled the "regime approach" has been extraordinarily influential (e.g. Esping Andersen 1990). At the core of the regime approach is the creation of a taxonomy for classifying countries into categories. The identification of the regimes may ultimately be based on a "variable approach" (explained in more detail further below). In other words, the actual classification of cases into the identified regimes/categories can be based on the empirical measurement of some key variables. However, it is the categories and not the values of the underlying variables that are used in the subsequent regime analyses. The regime approach can be used for analysing how the various identified regimes are related to certain explanatory factors (driving forces behind regime formation), and on how differences across regimes can explain different outcomes including a range of economic, social, and political conditions.

In order to bring some clarity to the complexity of social protection in the EEA, it is useful to first focus on the various identifiable models of social protection. While any attempt to

categorize social policy systems naturally involves simplifications, such typologies are often fruitful in order to simplify complex patterns of similarities and differences. Early attempts to classify welfare states appear to have assumed a process of modernization from a residual welfare state to a more developed one (Wilensky and Lebeaux 1958). More recent contributions have identified and emphasized the parallel and path dependent development of different models (Esping Andersen 1990; Korpi and Palme 1998).

Social insurance models

We follow the taxonomy of social policy models outlined by Korpi and Palme (1998) as a frame for outlining variations across countries and over time: the targeted model; the basic security model; the voluntary state subsidized model; the corporatist model; and the encompassing model. Embodied into these five models are different strategies and principles to determine eligibility and entitlement levels, as well as financing, factors of outmost importance for programme coverage and benefit generosity. An important advantage of this typology is that it has a strict focus on institutional aspects of the social protections programmes as such, and it does not confuse the institutional models, neither with the political driving forces nor with the intended outcomes.

Benefits in the *targeted model* are typically very modest in character, providing mostly for the necessities of life. Living standards above the modicum are expected to be covered by private or occupational alternatives. In Europe the principle of low-income targeting is used mainly in residual areas of social protection, such as social assistance and minimum income benefits, and not in the core social protection programmes.

The *voluntary state subsidised* form does not dominate as a social policy model in any of the studied countries. However, unemployment insurance in Denmark, Finland, and Sweden, as well as sickness insurance in Switzerland follow that model. The voluntary state subsidised model is sometimes referred to as the “Ghent system”, after the Belgian town Ghent where this form of governance was first introduced. The Ghent-system is based on independent funds that organise social insurance for separate groups in society, typically trade union members, but with state financial support in addition to the contributions paid by the voluntary members. Unlike the state corporatist model, it does not typically include representatives from the state and employers in the administration.

Social insurances of the *basic security* type provide relatively modest benefits, which typically are flat rate in character. In cases where benefits are formally earnings-related, the income ceiling is often too low or the graduation of benefits by income usually not sufficient to guarantee high degrees of income security during periods out of work. Today, two variants of the basic security model exist, wherein eligibility is based either on contributions (Ireland and the UK) or on citizenship/residence and taxation (Denmark).

Eligibility in *state corporatist* systems is based on a combination of contributions and belongingness to specified occupational categories, and benefits are clearly earnings-related. The earnings-related character often gives higher benefit amounts than those of basic security systems. This is the dominant model among the Continental European countries (e.g. France and Germany).

The *encompassing* model combines citizenship-based universal benefits and earnings-related entitlements for the economically active population, and therefore shares important features to both basic security and state corporatist programmes. This model dominates among the Nordic countries (e.g. Norway and Sweden).

Social protection in Greece, Portugal and Spain, countries that began a democratic consolidation in the mid-1970s, share the fragmented structure of the state corporatist model (Katrougalos, 1996).

It is difficult to identify a single model that characterizes social protection in the New Member States of Central Eastern Europe (CEE). Countries in this area have moved in different directions and tend to mix different principles into what has been labelled a *hybrid model* (cf. Kuitto 2015).

In order to understand the effects of cross-national welfare state differences for free movement issues, it is of critical importance to recognise the importance of how the funding (and other qualifying conditions) of the different benefit systems is organised. The targeted model is typically funded by taxation. The state corporatist model is funded mainly by contributions from the social partners but always with state participation. The funding structure is also mixed in the voluntary state subsidised model. There are various different funding traditions in the basic security model, some countries rely on social contributions

while others rely on taxation. The encompassing model uses taxation for basic benefits but social security contributions for the earnings-related benefits.

These differences are important, not only from a financial point of view but also in terms of "legitimacy". Qualifying conditions in the form of social security contributions represent an effective way of establishing the "deservingness" of benefit claimants (Sjöberg 2000). For the purpose of this work package the question of mode of financing of social protection systems is thus potentially of great importance. The expectation is that the more the systems are funded by social security contributions the stronger the link between funding and benefit entitlements and hence the deservingness.

We argue in this deliverable that it is necessary to extend the regime approach, which has traditionally tended to be based on the characteristics of the social insurance systems, to also include policy areas of growing importance such as family policy and health care.

Family policy models

Variations in the organization of family related benefits across EU member states have longstanding traditions that are expressions of underlying differences in goals and values. This motivates an analysis of these traditions in regime terms as family policy models. While some countries have very modest family-related benefits and hence can be said to apply a *market based model*, other countries have much more ambitious family policies – but with different goals and using different policy instruments. Traditional family policy tends to be based on programmes that provide support to families with children in ways that facilitate a gendered division of market and care work between the spouses. This approach is commonly labelled the *male-breadwinner model* of family policy (common in Continental Europe). There is an important link in this model between the funding strategy of paying social security contributions and the right for the family members to derive rights from the fact that the worker/breadwinner pays such contributions. This is a very different logic from the *dual-earner* model (common in the Nordic countries), where family benefits and services are designed to provide resources and create incentives for both parents to work and take caring responsibilities. While there are earnings-related contributory benefits also in this model, rights are individual and child benefits have historically been paid directly to

mothers irrespective of their labour force attachment, which stands in contrast to the male-breadwinner model where the one paying the contributions also receives the benefit.

The distinction between the derived rights of the male-breadwinner model and the individual rights of the dual earner model can have important implications for the national politics of free movement, especially with regard to the issue of exporting benefits to family members (of mobile workers) residing abroad. The argument here is that there are different logics in terms of how entitlements are earned. In a male breadwinner model, the contributor earns social entitlements by paying contributions also for benefits that are not earnings-related such as child benefits. That family members may reside in other countries does not disturb the underlying logic of the institutional set-up. In the dual earner model, where rights are individual in general and child benefits are typically based on the basis of residence, there is no logic in paying benefits to family members who reside in another country.

There tends to be a strong resemblance between the social insurance and family support models that individual countries have implemented: The market oriented family policy model is prevalent in "basic security countries". The dual earner model is generally found among the "encompassing countries". The male breadwinner model is common among the state corporatist countries. This suggests that effects that are expected from the policy design in one policy area (social insurance) will be reinforced by the same kind of models in other policy areas (family policies). It is also important to recognise that there are likely to be important interactions between social insurance and family policies on the one hand, and labour market institutions on the other hand, when it comes to various sort of outcomes (ranging from poverty and inequality to normative attitudes).

Health care models

While all EEA countries have comprehensive health care systems, it is important to point out that they differ when it comes to both financing and benefits. A basic distinction is commonly made between the *health insurance model* and the *national health services model* (cf. Wendt et al 2009). The insurance model for health care follows the same logic as the social insurance model for cash benefits discussed above, i.e. insured persons pay contributions and then are insured in separate corporations. In contrast, universal health

care systems are typically tax funded without the same link between the financing mechanism and how and where you are insured found in health insurance systems where contributions more clearly establish such a link. In a health service model, residents are not "contributors" by default, which might be a source for concerns about "legitimacy" given the wide-spread value and expectation of "reciprocity". It thus appears fruitful to apply a regime approach in the health care policy area and the SPEUDA data-base includes a regime dummy variable that captures the difference between the health insurance model and the national health service model.

There are also good reasons to look beyond health care and social protection when we are analysing societal regimes. Partly as a response to the almost exclusive focus on welfare state institutions for classifying countries, the Varieties of Capitalism school of thought has launched an alternative system of classification with a stronger emphasis of labour market regulations and educational systems (e.g. Hall and Soskice 2001). This has made a clear imprint on contemporary welfare state research. It is moreover of obvious relevance for the present project, which is dealing with the nexus between labour markets and social protection. The provision of different kinds of indicators for both these policy areas paves the way for an in-depth analysis of such interactions in future deliverables.

The variable approach and indicators

An alternative to the regime approach is what can be labelled *the variable approach* which, instead of working with categories, starts from the notion that more information is gained by measuring institutional variation with mostly continuous variables that more accurately capture an underlying multidimensional variation, and that allows the combinations of different variables in the empirical analysis. In this deliverable, we will pursue a "programme specific" variable approach along with the regime approach (Palme 2006). The programme specific variable approach has some attractive properties. First, it captures the variation that is specific to programmes which is helpful because in reality the various kinds of programmes in the different countries studied do not follow the same logic or design. Secondly, it allows for the creation of indices that can capture what can be expected to be the critical variations across countries rather than all social policy variations. Such an approach invites us to study, for example, unemployment insurance programmes *per se* and

not only as part of a wider policy regime. If we want to study attitudes to free movement-, for example, we may have a lot to gain from studying unemployment insurance benefits separated from other kinds of provisions such as old-age pensions (that tend to be very important for the classification of countries in regime types). Any exploration of the importance of specific insurance programmes should of course be guided by theoretically based hypotheses of why the character of a specific insurance programme would have consequences for the view citizens and/or politicians take on free movement, rather than the kinds of policy configurations that are captured by regime categories that aim to summarise the character of a number of social insurance branches.

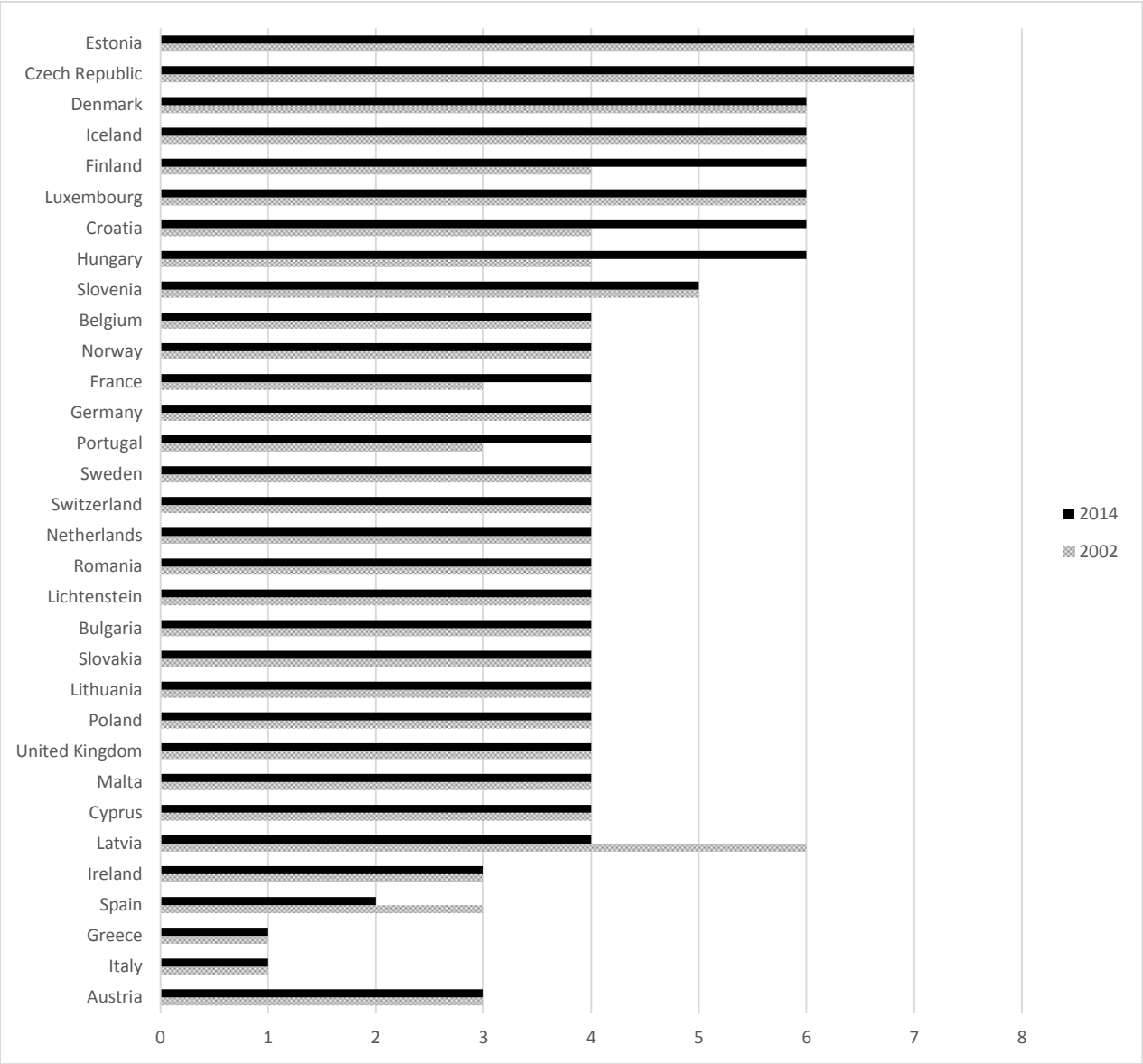
Following this logic, in the discussion below we describe the organization of social protection in relation to major social insurance programmes, family support programmes, means-tested minimum income provisions, and health care. We have selected a number of key indicators to describe the programmes: coverage, qualifying conditions, financing, and benefit levels.

Unemployment benefits

SPEUDA includes indicators for unemployment insurance. As described in the Appendix, the indicators follow a broad division into categories: coverage, qualification conditions, funding, and benefit generosity.

Figure 23 displays the coverage index calculated on the basis of how many categories of people on the labour market are covered by unemployment insurance (for details, see Appendix). Most countries have had stable rules for inclusion but we can also see that a handful of the countries have actually included more categories over the observed period. We have seen declining coverage in a couple of countries (Latvia and Spain).

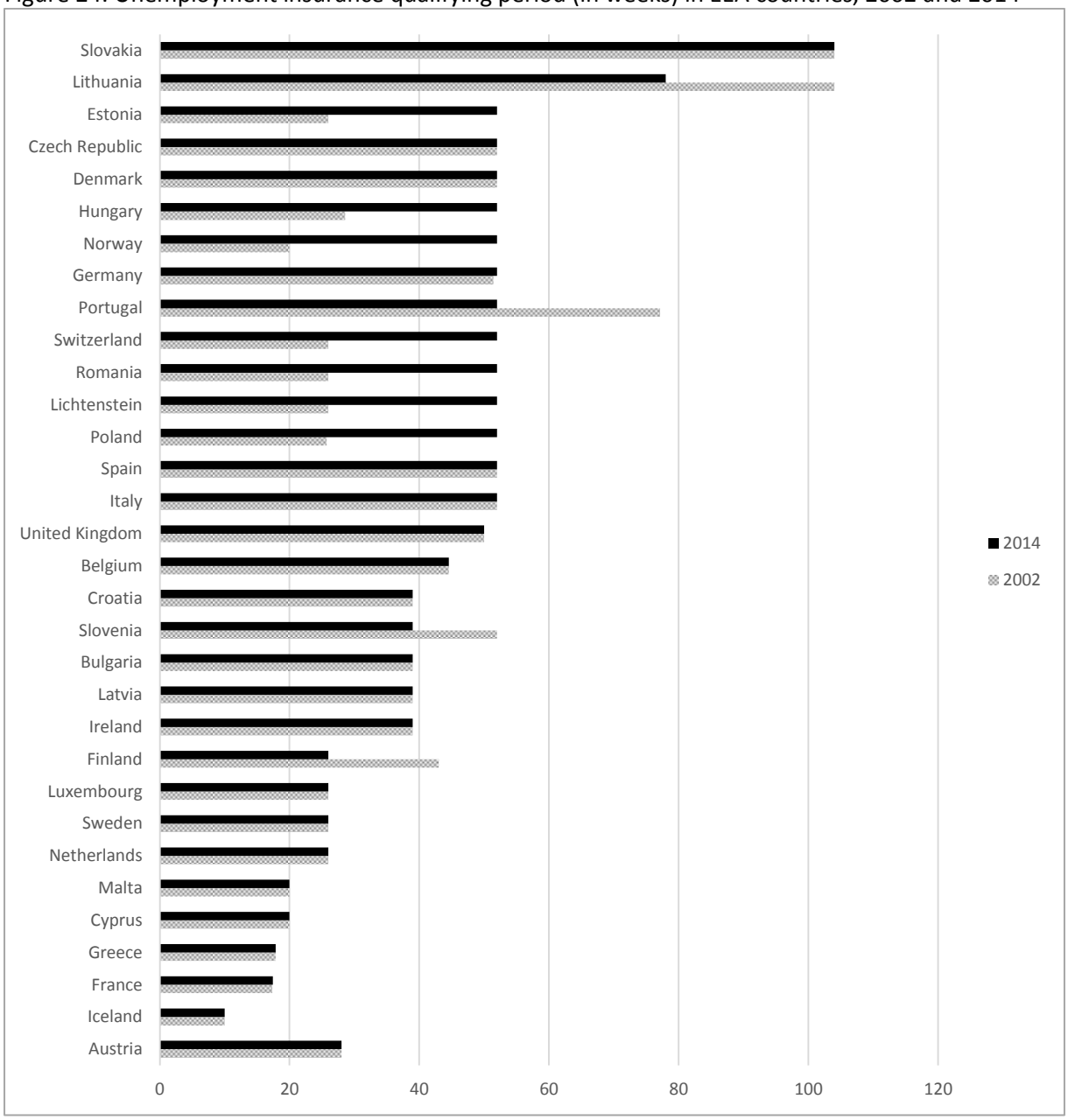
Figure 23: Unemployment insurance coverage index in EEA countries, 2002 and 2014



Note: The x-axis measures the number of categories of people covered. The list of categories is explained in the Appendix.
Source: SPEUDA

In unemployment insurance systems, you typically qualify by paying contributions or by being in insured employment for a certain period of time. Such rules have been put in place in order to ensure that benefit claimants have documented their willingness to work and would be deserving of benefit recipient (cf. Sjöberg 2000). As shown in Figure 24, the qualifying period for getting access to the unemployment benefit is stable in most countries. There are however some exceptions and about as many countries reduce the length of the qualifying period as there are countries prolonging it.

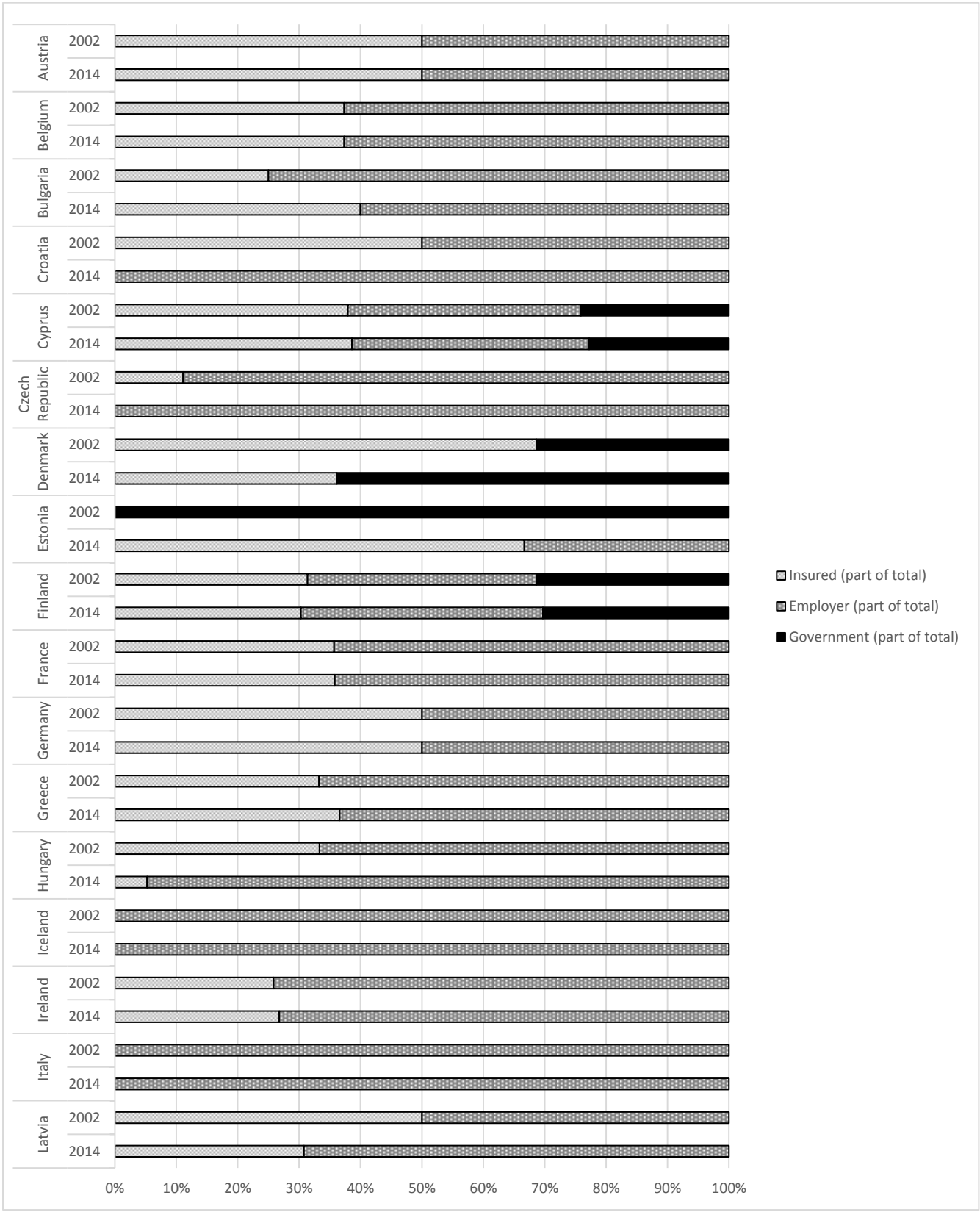
Figure 24: Unemployment insurance qualifying period (in weeks) in EEA countries, 2002 and 2014



Source: SPEUDA

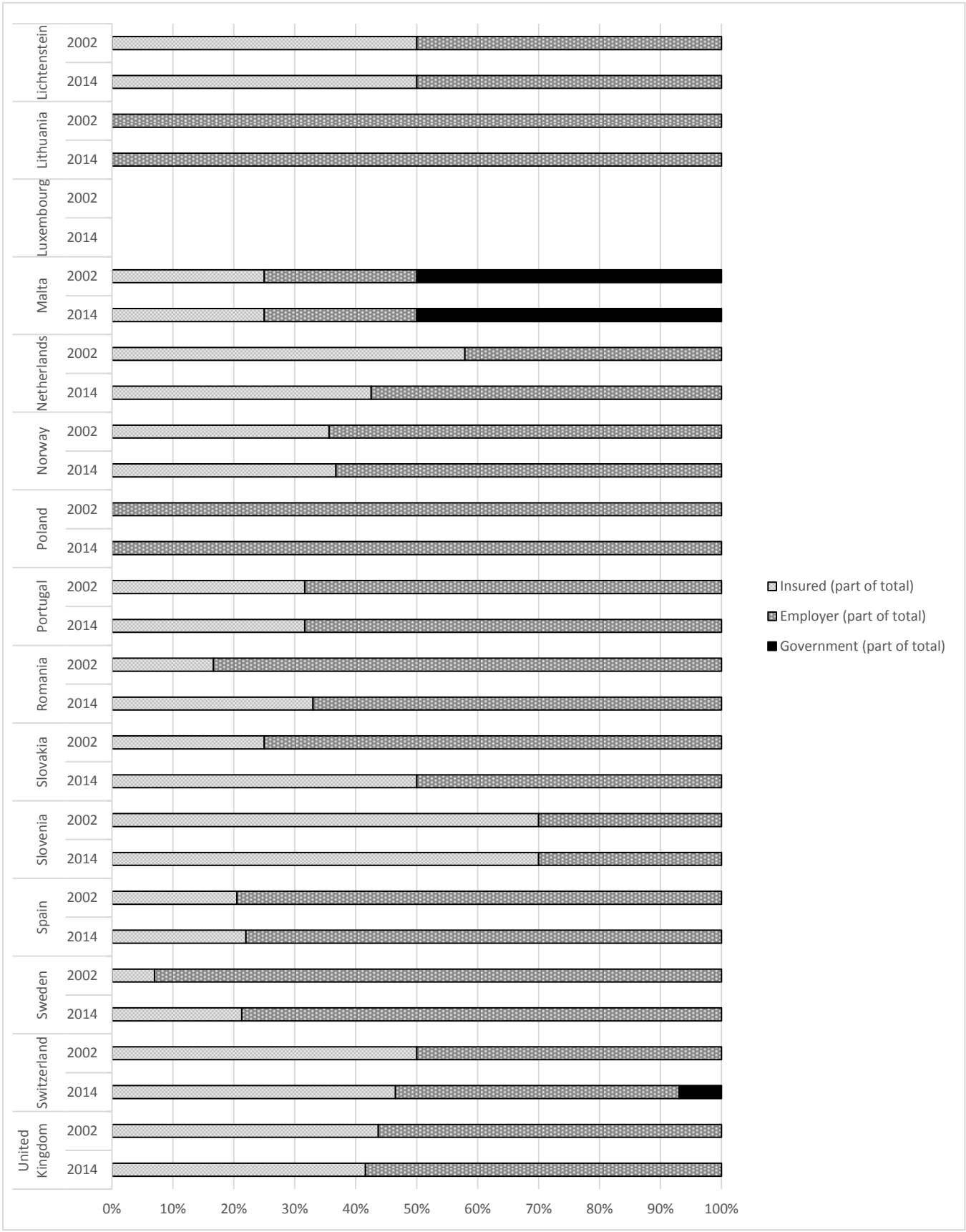
In Figures 25a and b we turn to the financing of unemployment insurance. We can see that, with the exception of Denmark, Estonia and Sweden, the direct state funding of this benefit programme is very modest. However, the figure does not tell the whole story in the sense that it only captures the formal rules for contributions of the insured persons, the employers and the state. However, the state will often cover the deficits and this is an aspect that is not captured by this indicator since it only reflects the formal rules.

Figure 25a: Unemployment insurance financing, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014



Source: SPEUDA

Figure 25b: Unemployment insurance financing, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014

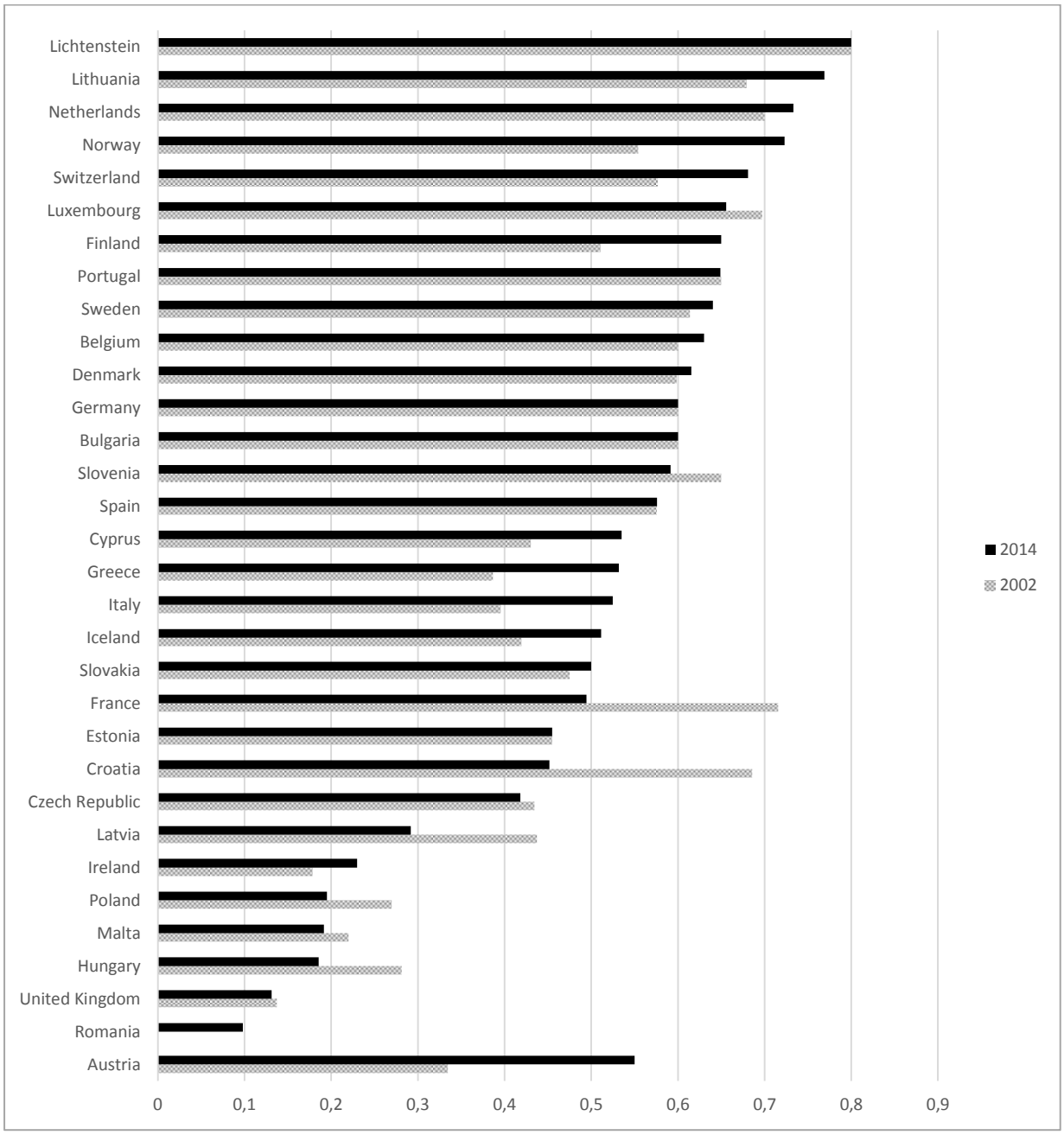


Source: SPEUDA

REMINDER

In Figure 26 below, unemployment benefit replacement is defined in proportion to GDP per capita. While most countries provide benefits equal to 50 percent or more of GDP per capita, a number of countries have very modest unemployment benefits/replacement rates and here we find examples from both the old EU member states, for example the UK, and more recent member states, such as Malta.

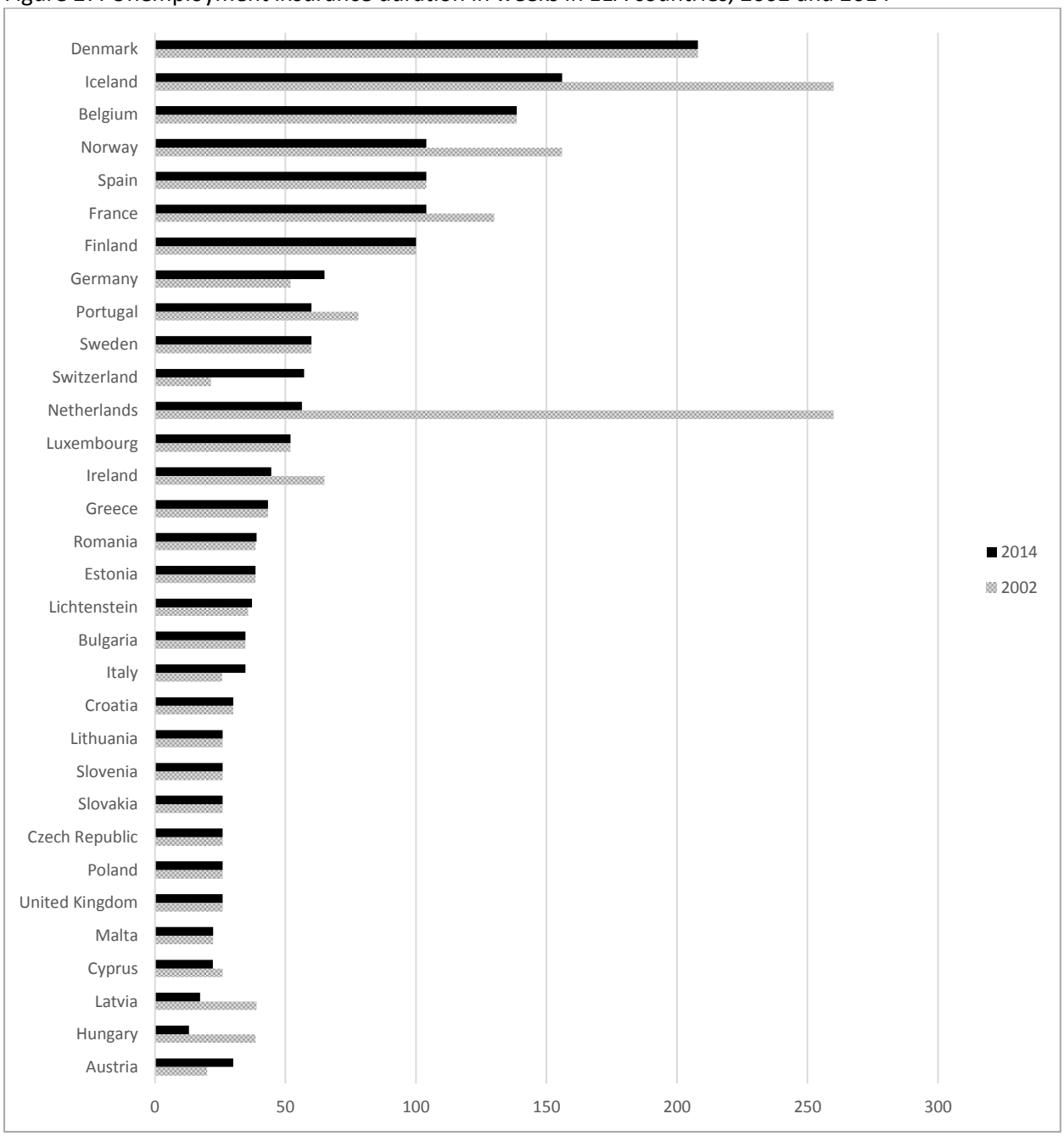
Figure 26: Unemployment insurance replacement (proportion of GDP per capita) in EEA countries, 2002 and 2014



Source: SPEUDA

In Figure 27, the duration of unemployment benefits among the EEA countries are displayed in number of weeks. We can observe substantial variation among European countries ranging from several years in Denmark to less than 20 weeks in Hungary but also that a handful of countries have reduced the duration since 2002.

Figure 27: Unemployment insurance duration in weeks in EEA countries, 2002 and 2014

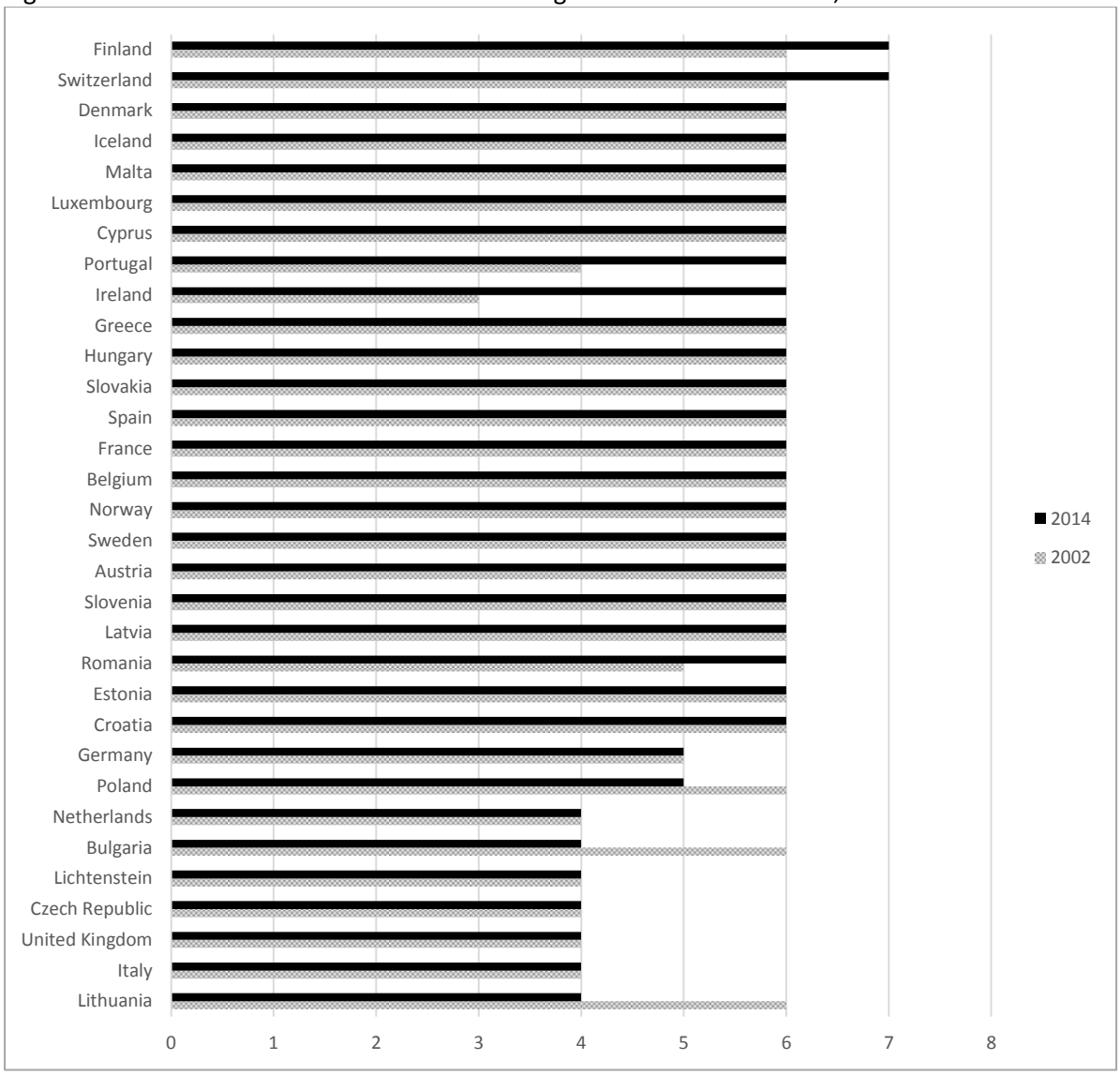


Source: SPEUDA

Sickness cash benefit insurance

SPEUDA includes indicators for sickness cash benefits. The indicators follow the same division into categories as for unemployment insurance: coverage, qualification conditions, funding, and benefits generosity. Figure 28 shows the same kind of coverage index as we displayed for unemployment insurance above. Coverage is broader for sickness cash benefits among European countries and is also increasing in some countries. Three new member states report declining coverage.

Figure 28: Sickness cash benefit insurance coverage index in EEA countries, 2002 and 2014

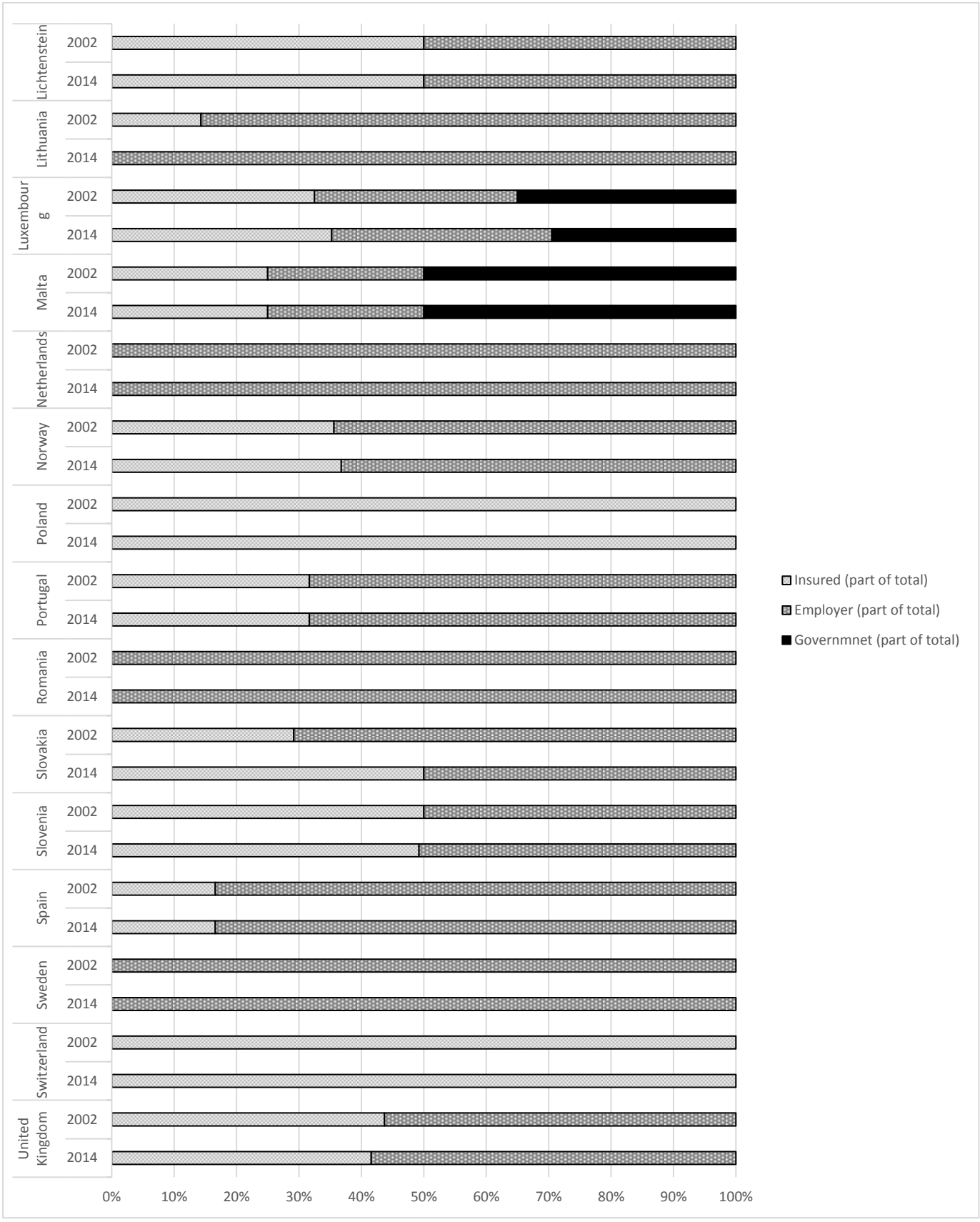


Note: The x-axis measures the number of categories of people covered. The list of categories is explained in the Appendix.
Source: SPEUDA

Figure 29a: Sickness cash insurance financing, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014

Source: SPEUDA

Figure 29b: Sickness cash insurance financing, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014

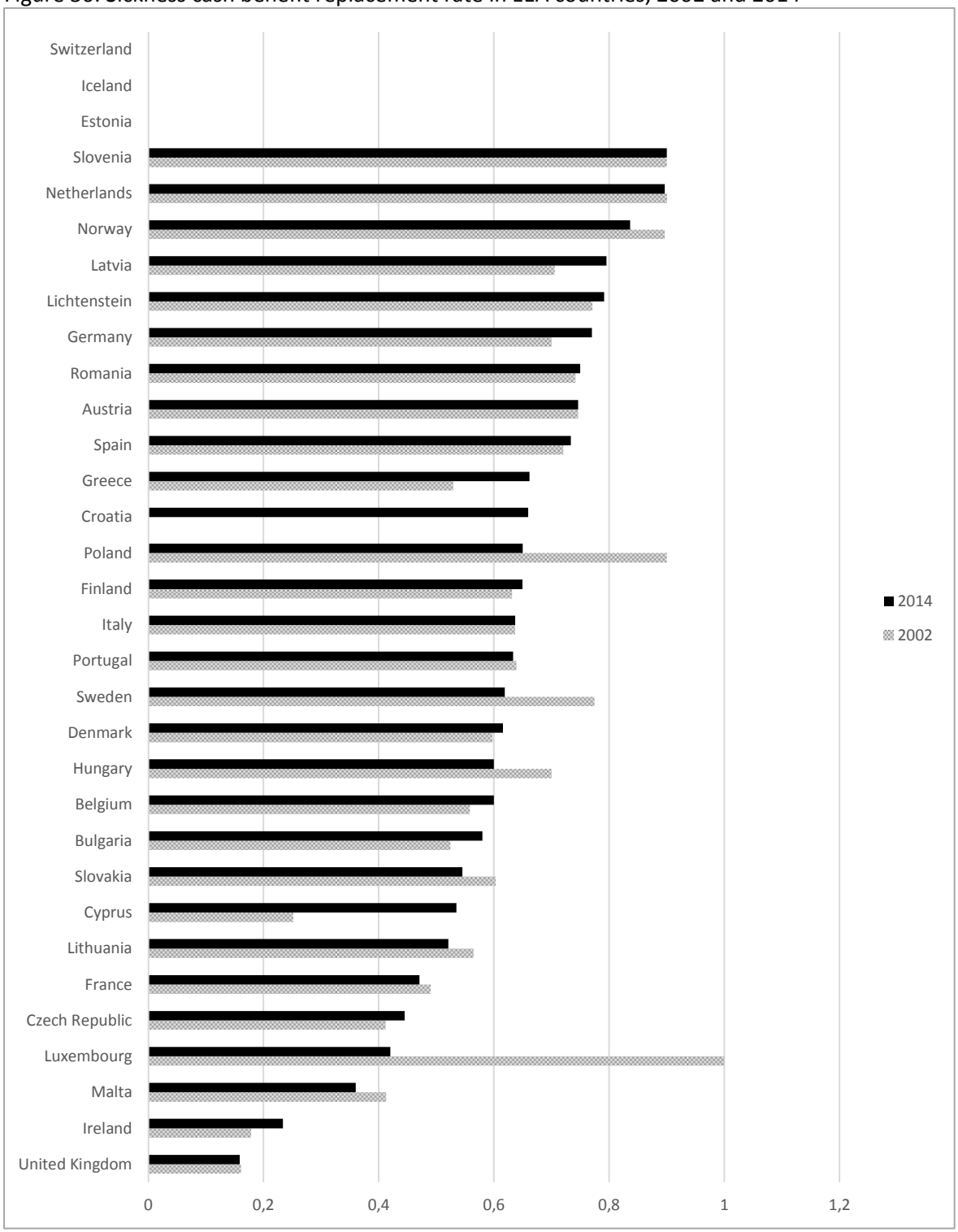


Source: SPEUDA

Data not shown here indicate that the qualifying periods for sickness insurance tend to be shorter than for unemployment insurance. Indeed, in some countries coverage is more or less instant for those who get employed. The data on formal rules for financing of sickness benefits displayed in Figure 29a and b show similarities with those for unemployment insurance. Only a few countries have a strong reliance on tax financing of sickness benefits. Unsurprisingly Denmark is one of them.

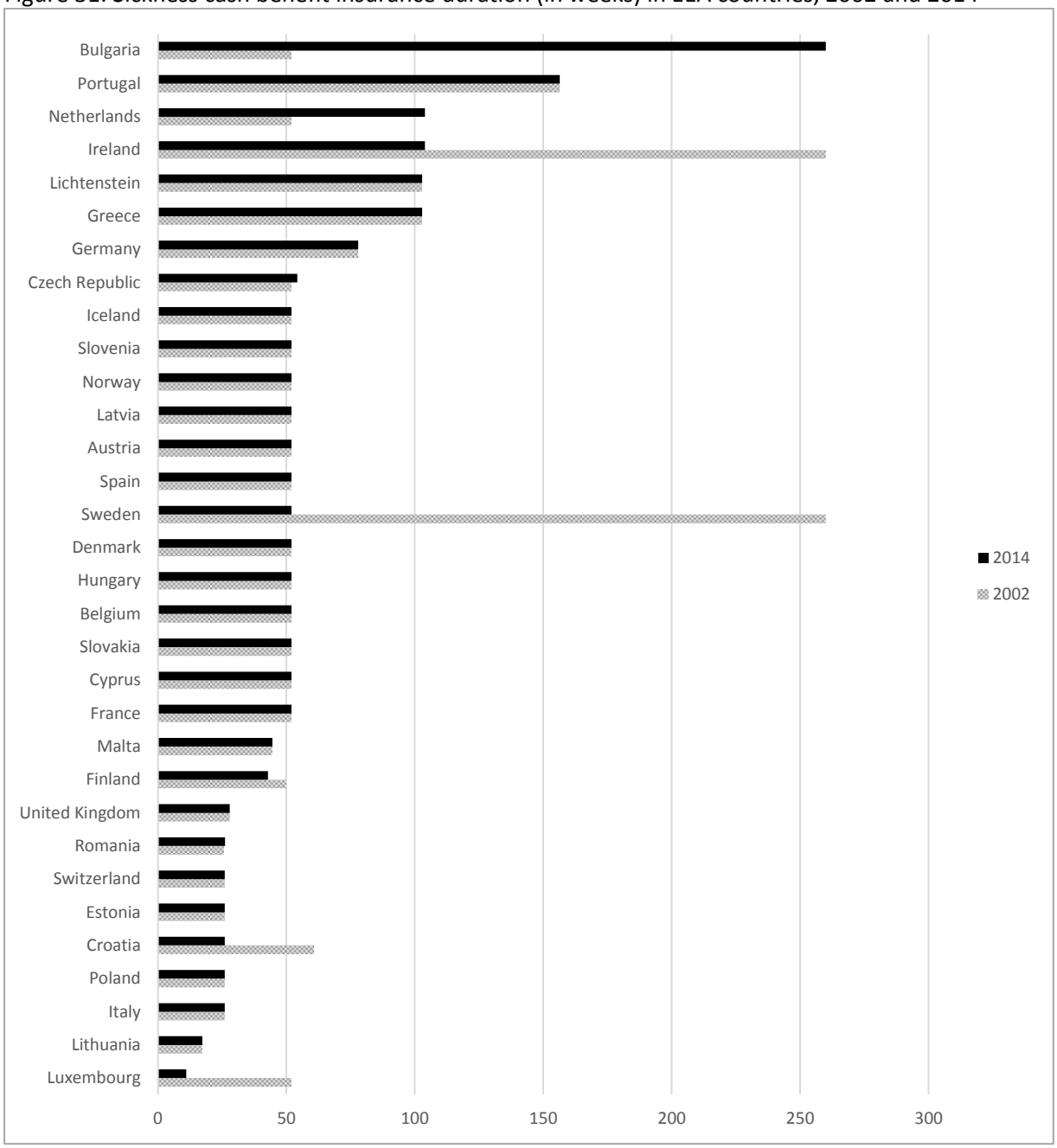
Replacement rates for sickness cash benefits tend to be higher than for unemployment insurance as illustrated by Figure 30, except for Ireland and the UK where they are on roughly the same modest level. Cross national differences are however substantial. Interestingly enough, we can observe declining replacement levels in a number of countries and where improvements are recorded they tend to be small. This is in line with the results reported by Palme (2015) in a study on retrenchment/expansion patterns in Europe during the financial crisis. Figure 31 shows remarkable stability in the duration periods in 2002 and 2014. There are some noteworthy exceptions, though: Sweden and Ireland cut the duration period substantially; Croatia, Luxembourg, and Finland also reduced duration; whereas Bulgaria prolonged the duration period considerably.

Figure 30: Sickness cash benefit replacement rate in EEA countries, 2002 and 2014



Note: Missing data for Switzerland, Iceland and Estonia (data-base under construction).
Source: SPEUDA

Figure 31: Sickness cash benefit insurance duration (in weeks) in EEA countries, 2002 and 2014



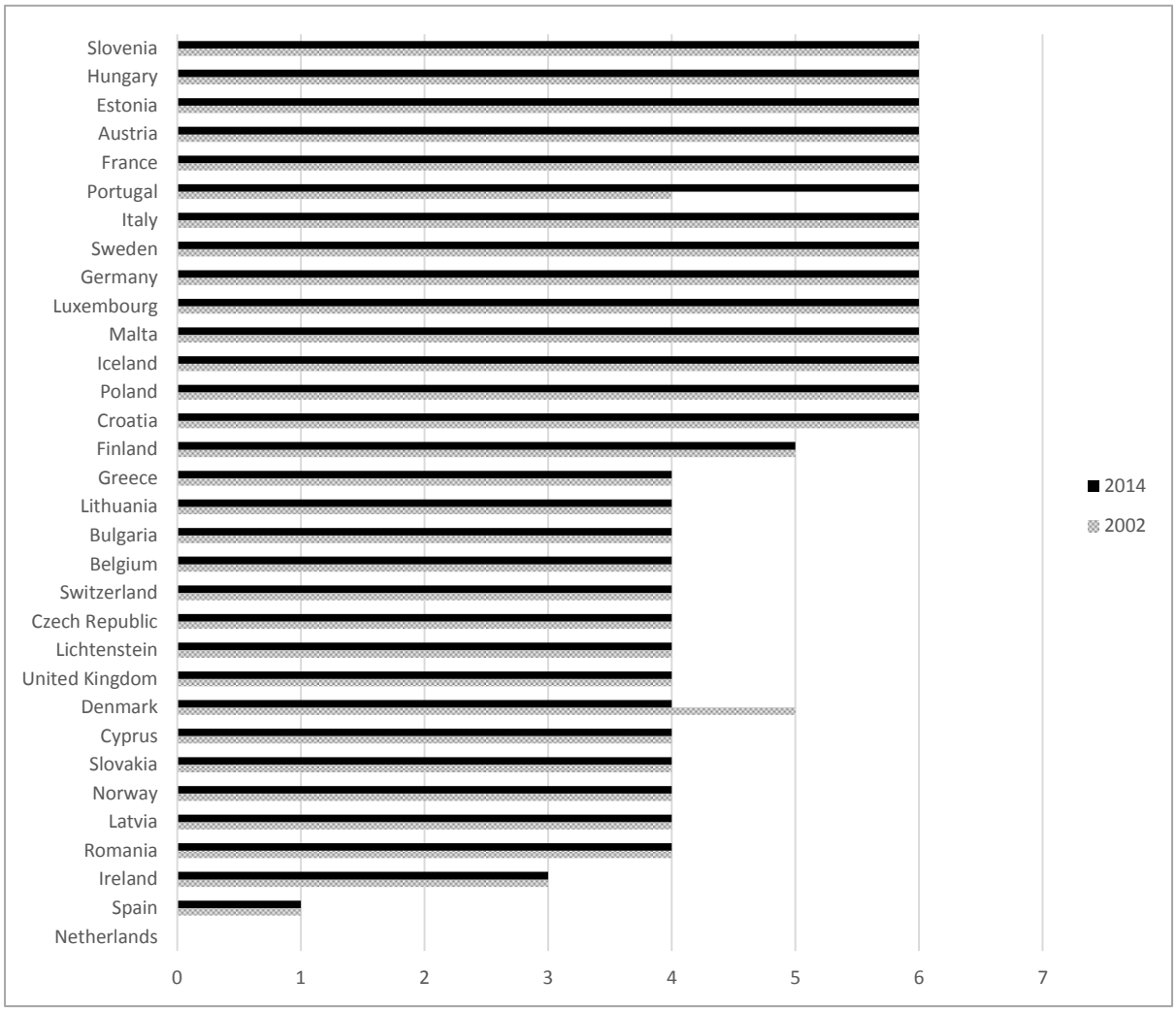
Source: SPEUDA

Work accident insurance

SPEUDA includes indicators for work accident insurance. The indicators follow the broad division into categories: coverage, qualification conditions, funding, and benefits generosity.

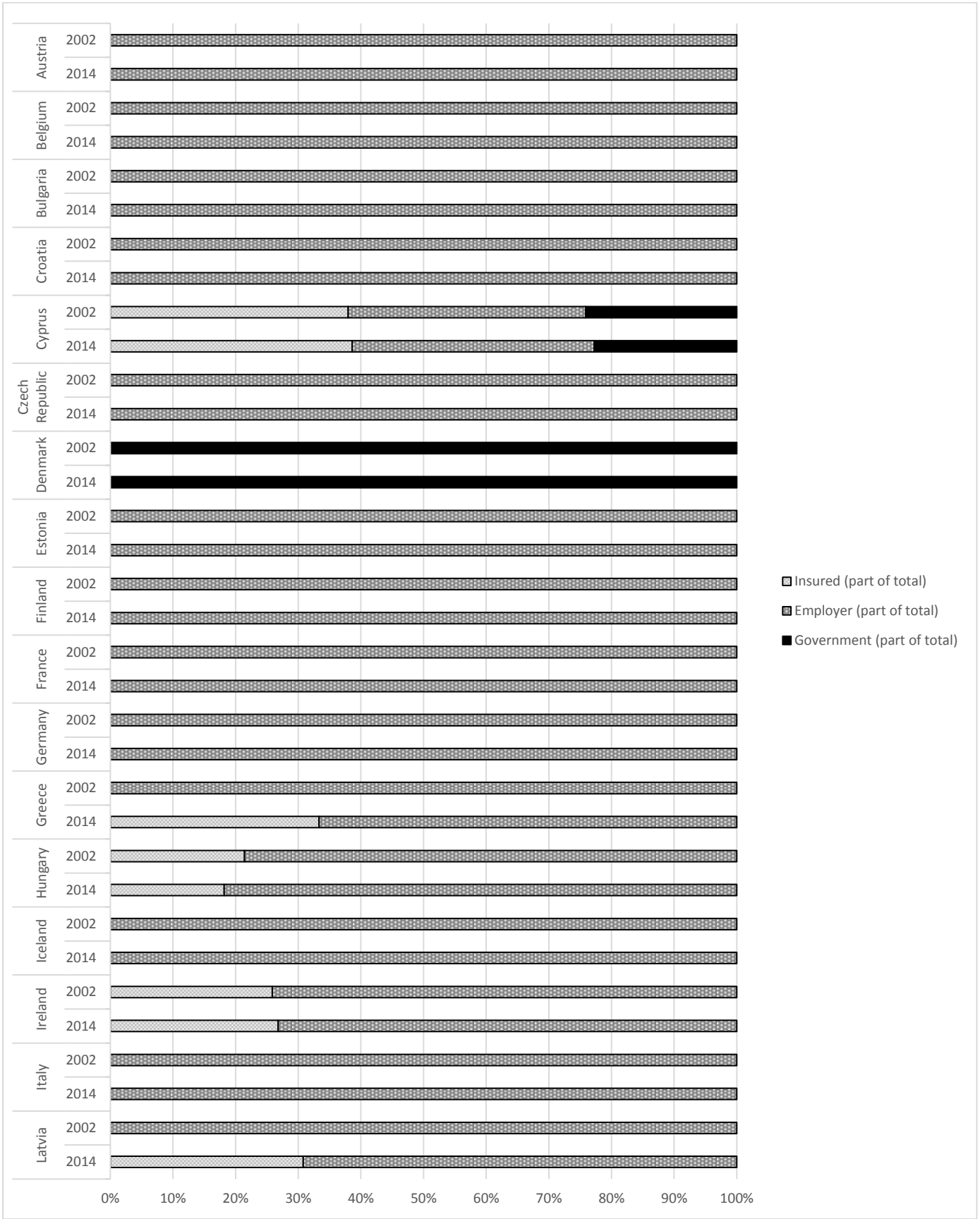
By and large, among the EEA countries the cross-national differences are small when it comes to coverage, qualifying conditions and state financing of this particular programme. Overall there are relatively small gaps in coverage (Figure 32). There is usually immediate coverage for employed persons, with the employer covering the entire costs with their social security contributions in most countries (Figure 33a and b). Some countries, with the UK as a clear example, have joint funding of all social insurance programmes and that typically results in a mixed funding also of work accident insurance. When it comes to earnings replacement, however, there is a fair amount of variation. While the average replacement rate is higher than for the other benefits, as illustrated by Figure 34 not all countries provide generous work accident insurance benefits.

Figure 32: Work accident insurance coverage index in EEA countries, 2002 and 2014



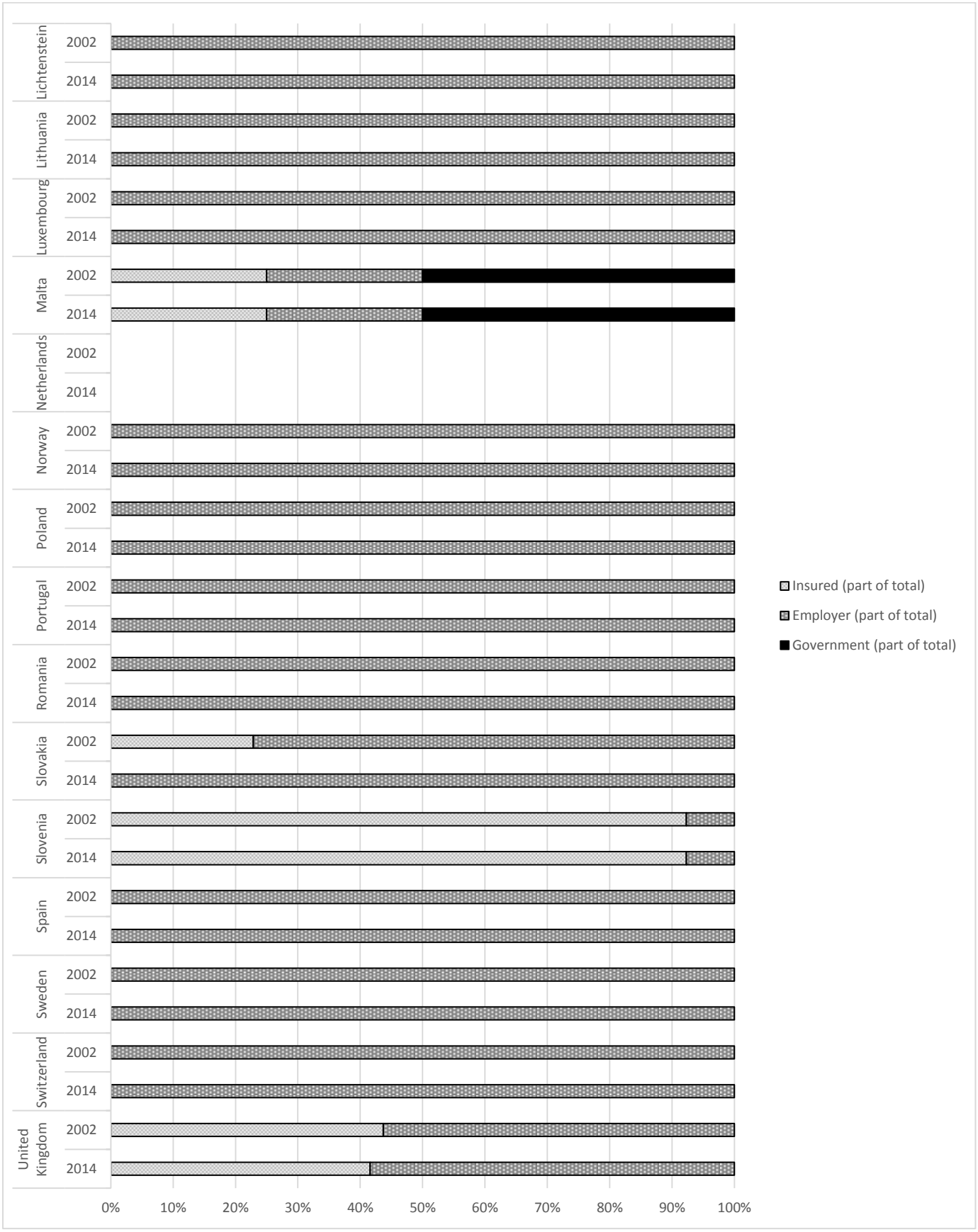
Note: The x-axis measures the number of categories of people covered. The list of categories is explained in the Appendix.
Source: SPEUDA

Figure 33a: Work accident insurance financing, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014



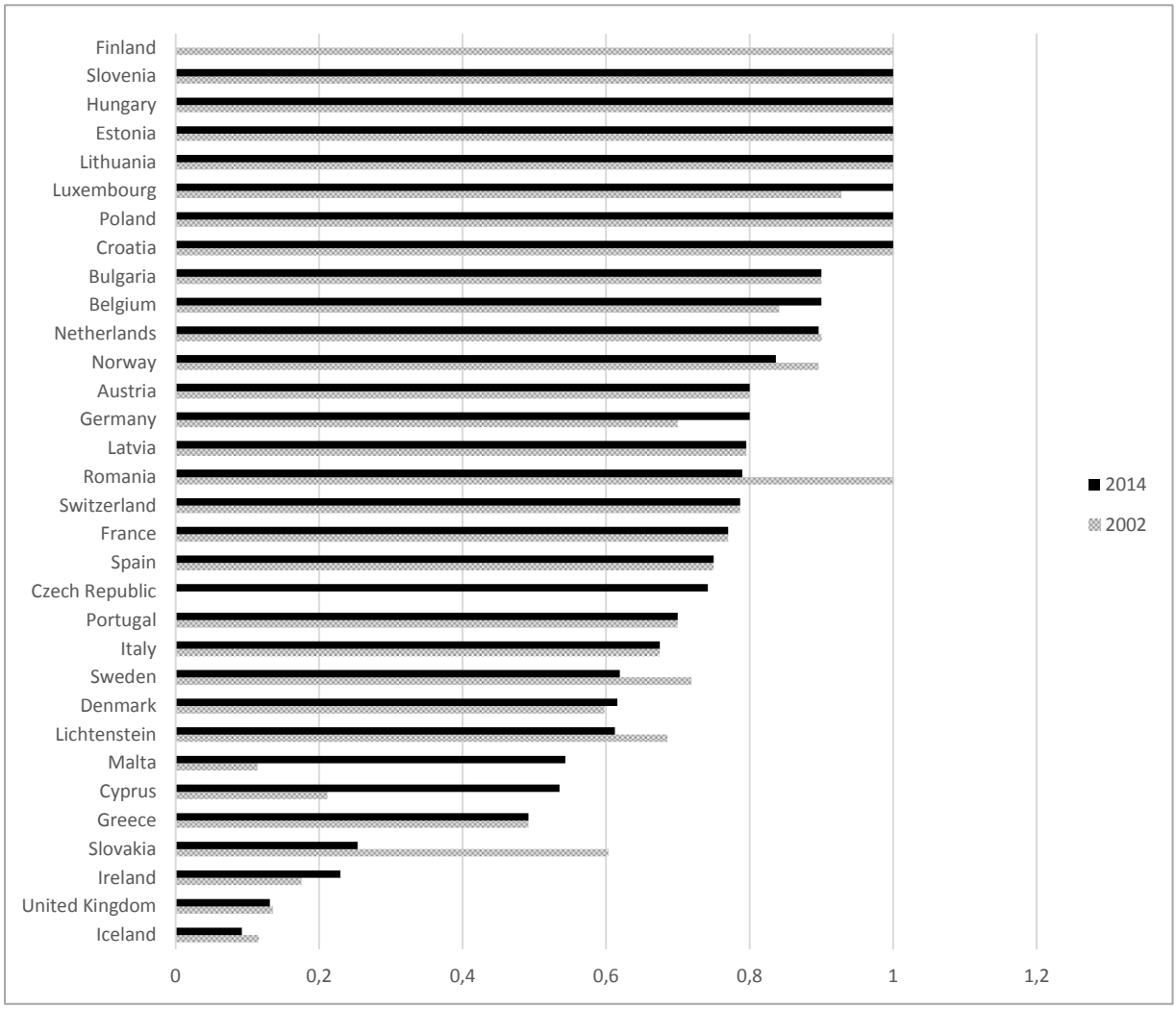
Source: SPEUDA

Figure 33b: Work accident insurance financing, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014



Source: SPEUDA

Figure 34: Work accident insurance replacement (proportion of GDP per capita) in EEA countries, 2002 and 2014



Source: SPEUDA

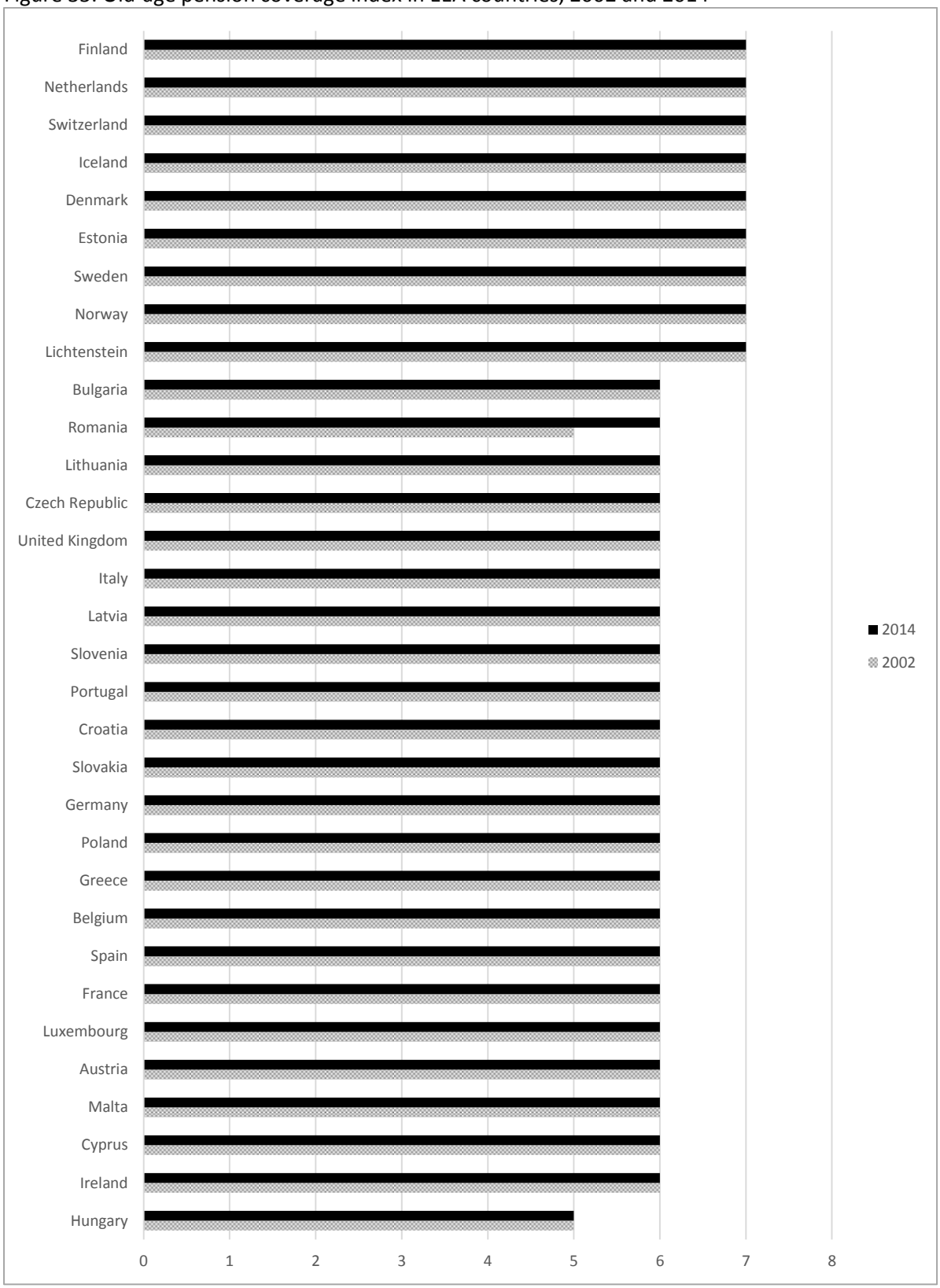
Old-age pensions

SPEUDA includes indicators for old-age pensions. The indicators follow the same broad division into categories: coverage, qualification conditions, funding, and benefit generosity.

We illustrate some of the cross-national variation by presenting data on the coverage of pension programmes using the same kind of index as we did for sickness and unemployment insurance above. Figure 35, showing the old-age pension coverage in EEA countries, reflects some of the underlying differences between the universal Nordic systems and the contributory state corporatist systems on the European continent. The Nordic pensions systems, but also those in the Netherlands and Switzerland, cover all permanent

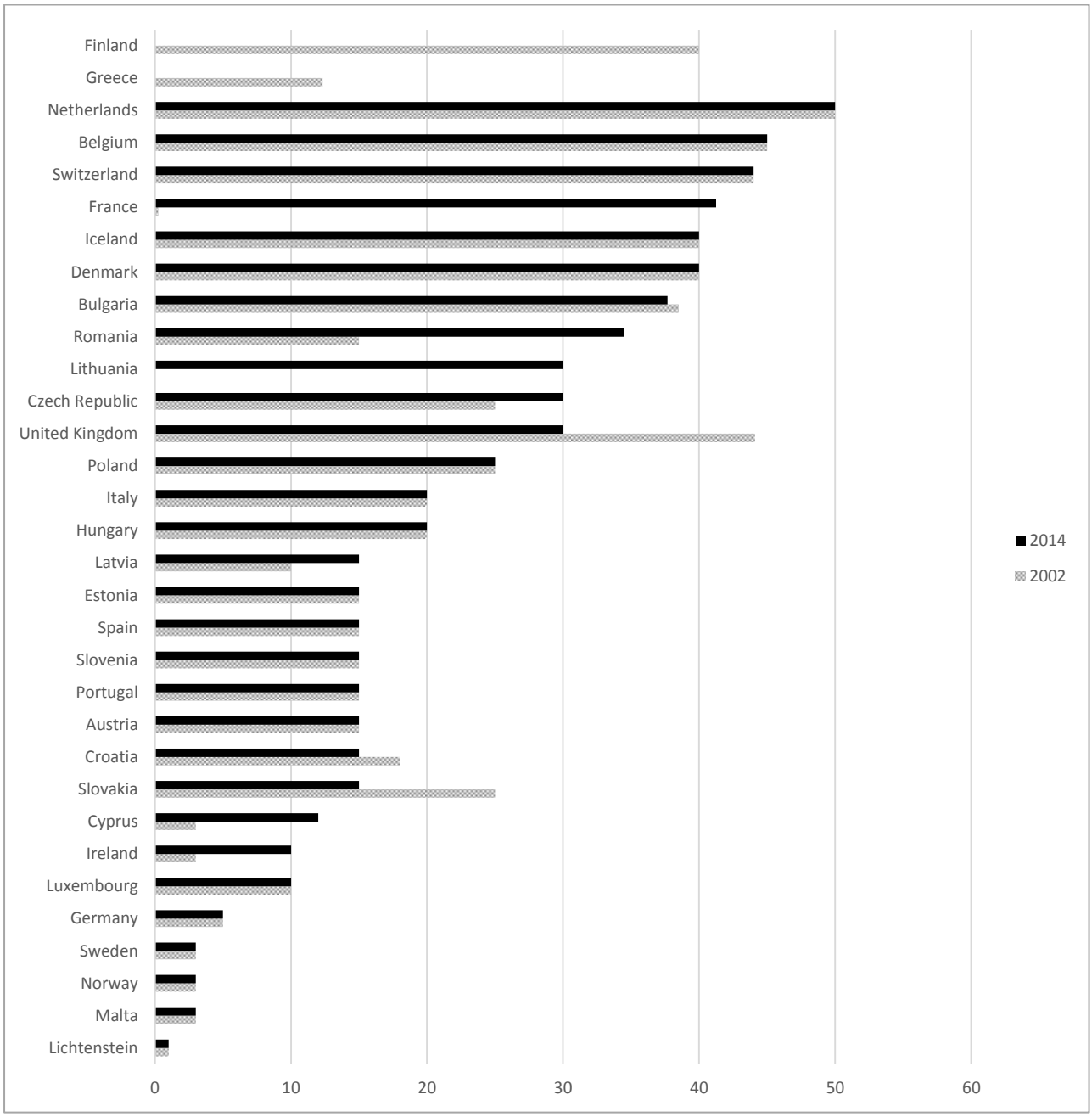
residents and give them pension entitlements without other conditionalities. The contributory systems typically cover those who are active on the labour market and coverage will therefore be lower in such systems. Countries with a primarily contributory system often have minimum provisions/pensions that are of a social assistance kind, i.e. paid after means-testing. However, access to such minimum provisions tends to be riddled with different conditionalities and such benefits are therefore not rights-based in the same way as contributory pensions (often referred to as 'droits acquis') or citizenship/residence-based pensions (Palme 1990).

Figure 35: Old-age pension coverage index in EEA countries, 2002 and 2014



Note: The x-axis measures the number of categories of people covered. The list of categories is explained in the Appendix.
Source: SPEUDA

Figure 36: Old-age pension conditions (required years of contribution) for men in EEA countries, 2002 and 2014



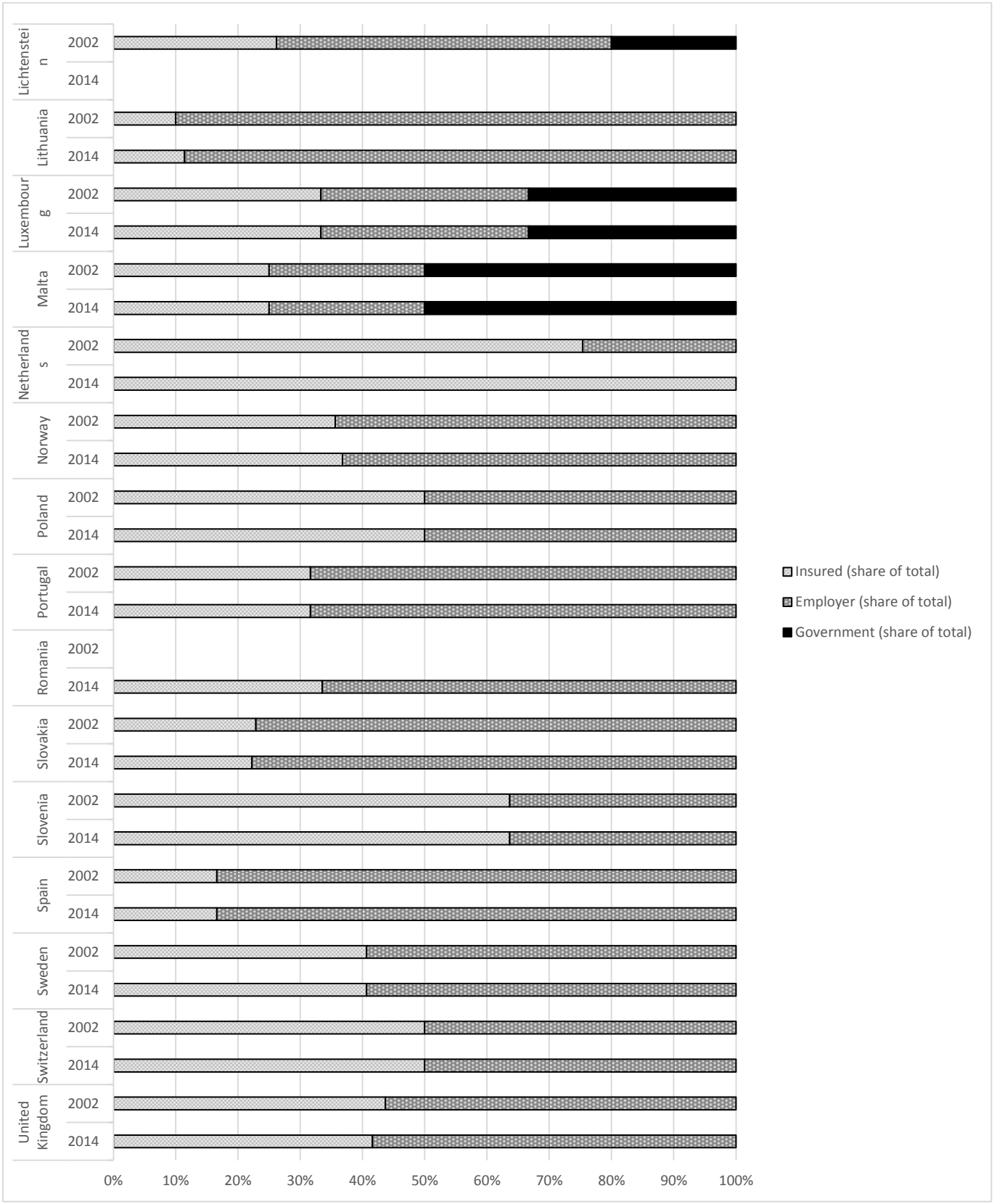
Note: Countries where different conditions apply for women include Poland (2002, 2014), Bulgaria (2002, 2014), Switzerland (2002, 2014), UK (2002) and Romania (2014).
Source: SPEUDA

Figure 36 shows the required years of contribution for an earnings-related pension and displays large cross-national differences. Figure 37a and b shows the distribution of formal financial responsibilities.

Figure 37a: Pension insurance financing, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014

Source: SPEUDA

Figure 37b: Pension insurance financing, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014



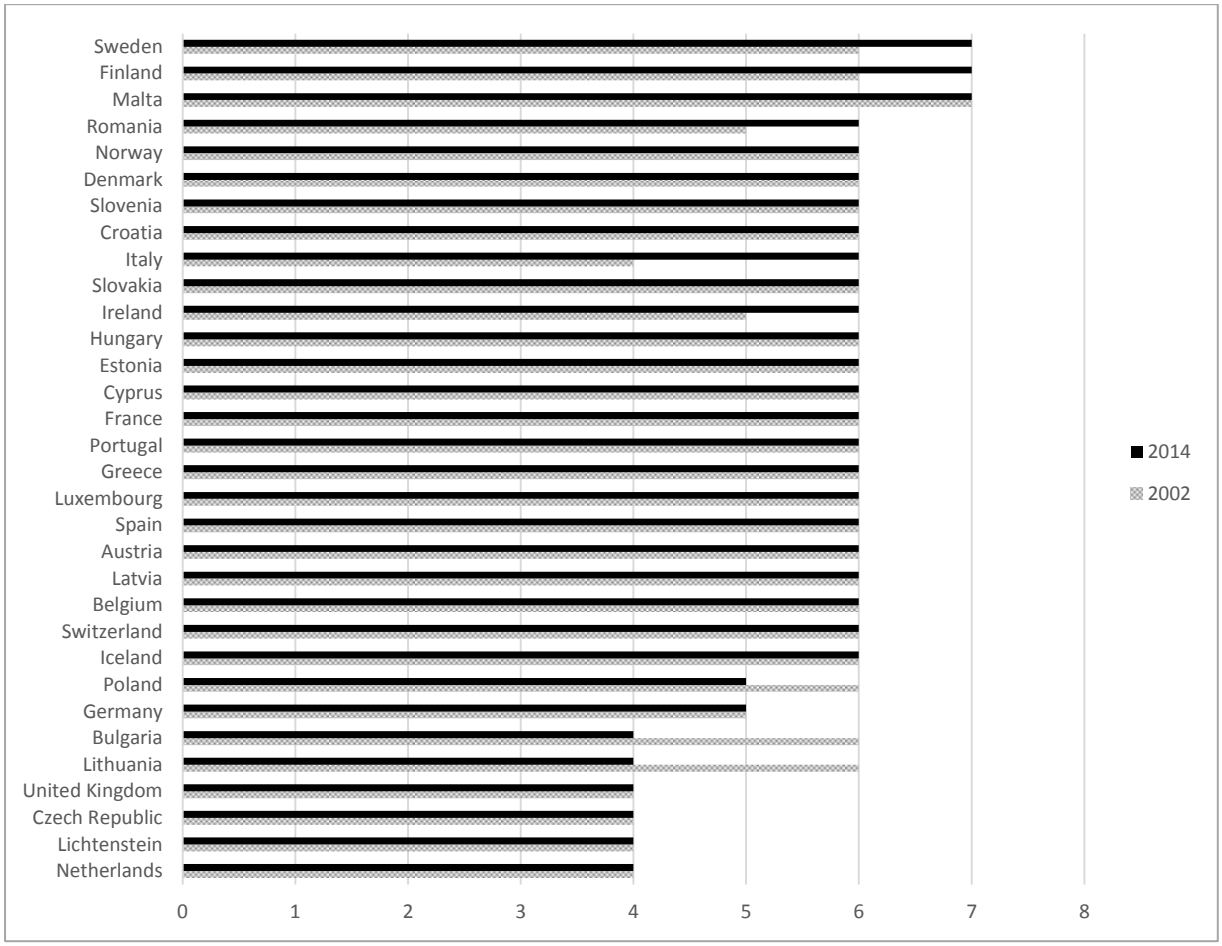
Source: SPEUDA

Family benefits

SPEUDA further includes indicators of two different kinds of family related programmes: maternity/parental leave benefits and family benefits. The indicators for both kinds of benefits follow the same broad division into categories: coverage, qualification conditions, funding, and benefits generosity. For reasons of space, we will focus the presentation of indicators on the maternity/parental leave benefits.

The coverage index for maternity/parental leave benefits displayed in Figure 38 is constructed as for the other benefit programmes. It indicates a broad coverage of these programmes in Europe.

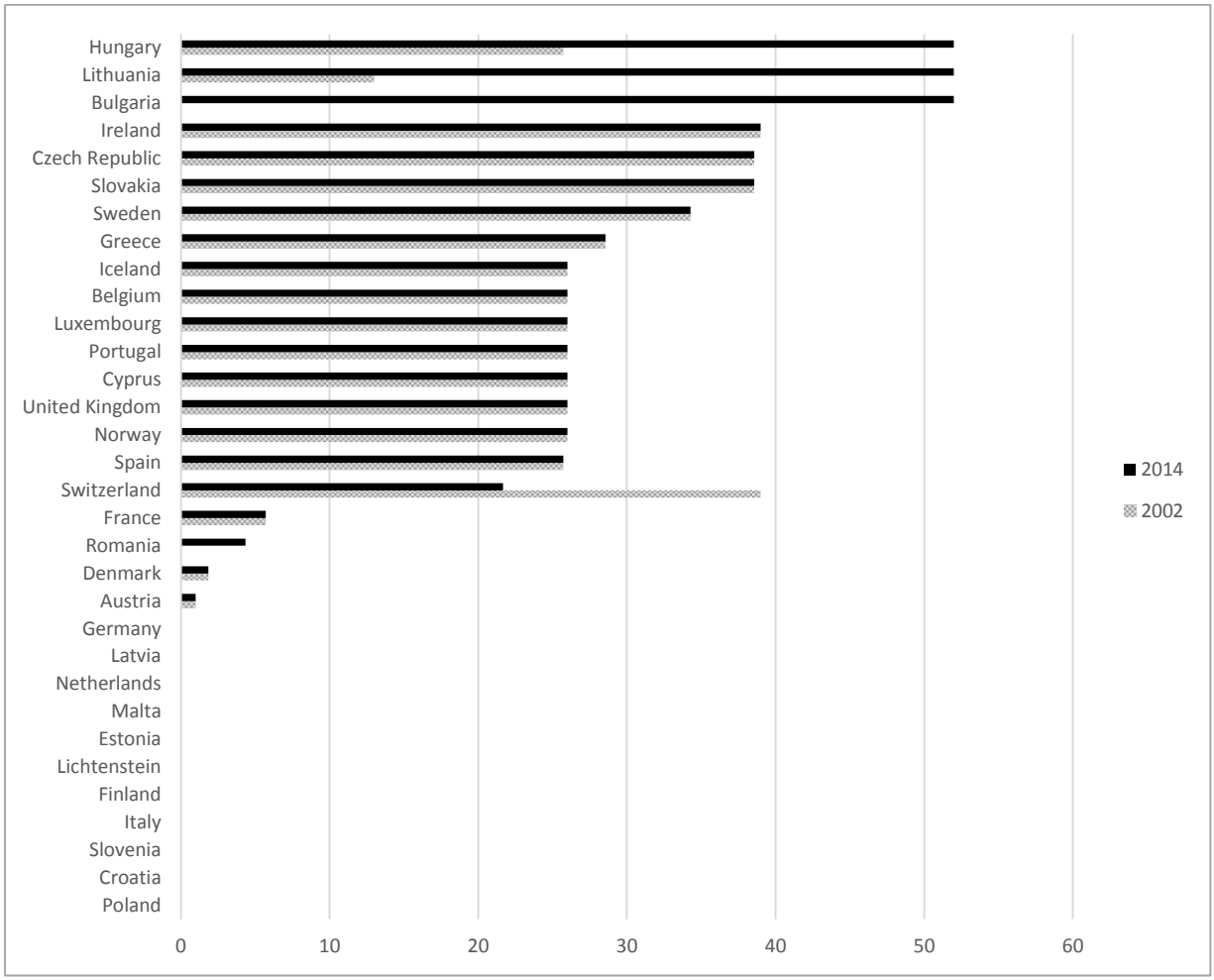
Figure 38: Maternity/parental leave benefit coverage in EEA countries, 2002 and 2014



Note: The x-axis measures the number of categories of people covered. The list of categories is explained in the Appendix.
Source: SPEUDA

Figure 39 shows that qualifying periods for maternity/parental leave benefits vary quite substantially between EEA countries. Some countries have very short qualifying periods. A fairly large group of countries have qualifying periods around 26 weeks. Few countries have qualifying period over 40 weeks.

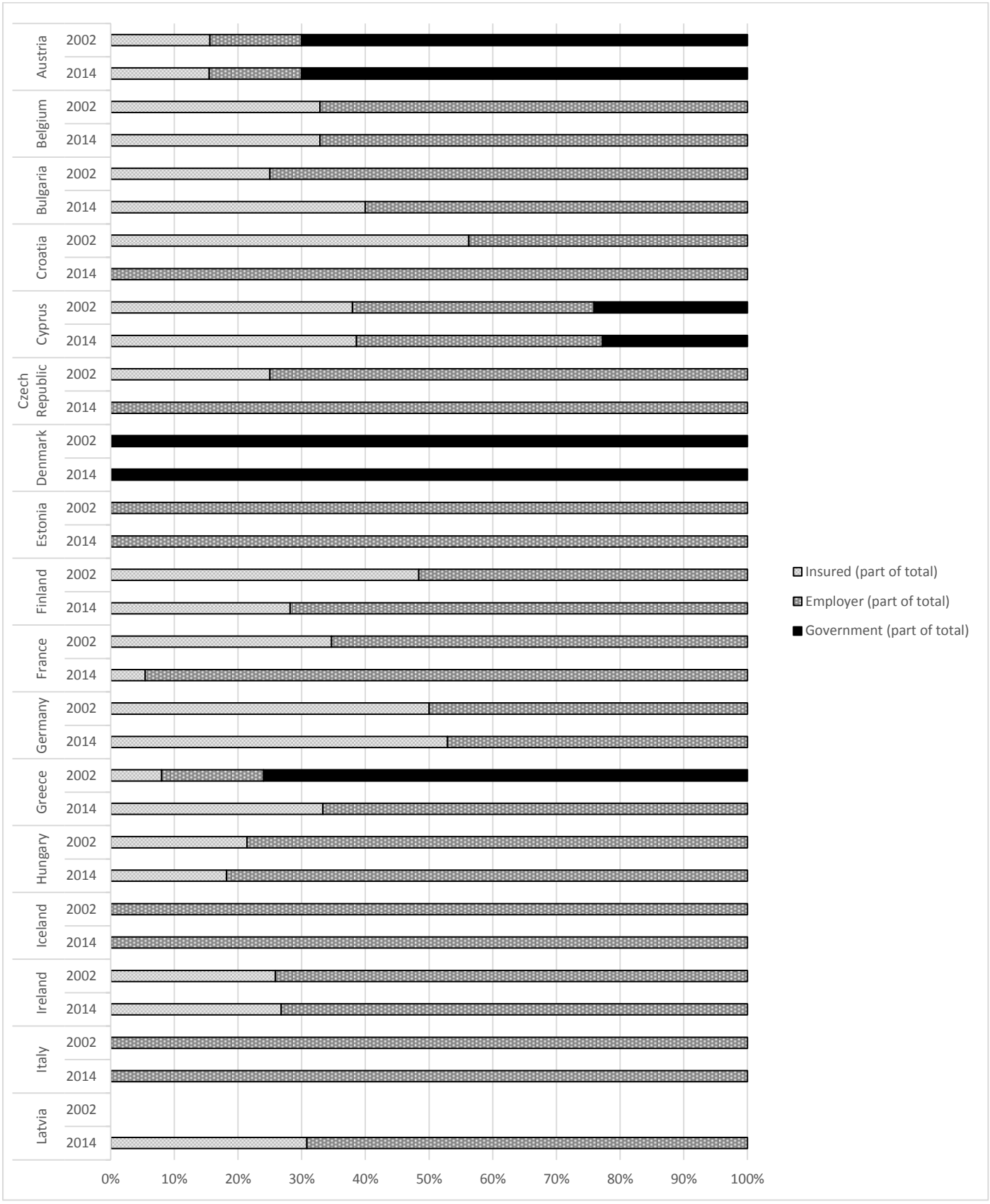
Figure 39: Maternity/parental leave benefit qualifying period (in weeks) in EEA countries, 2002 and 2014



Source: SPEUDA

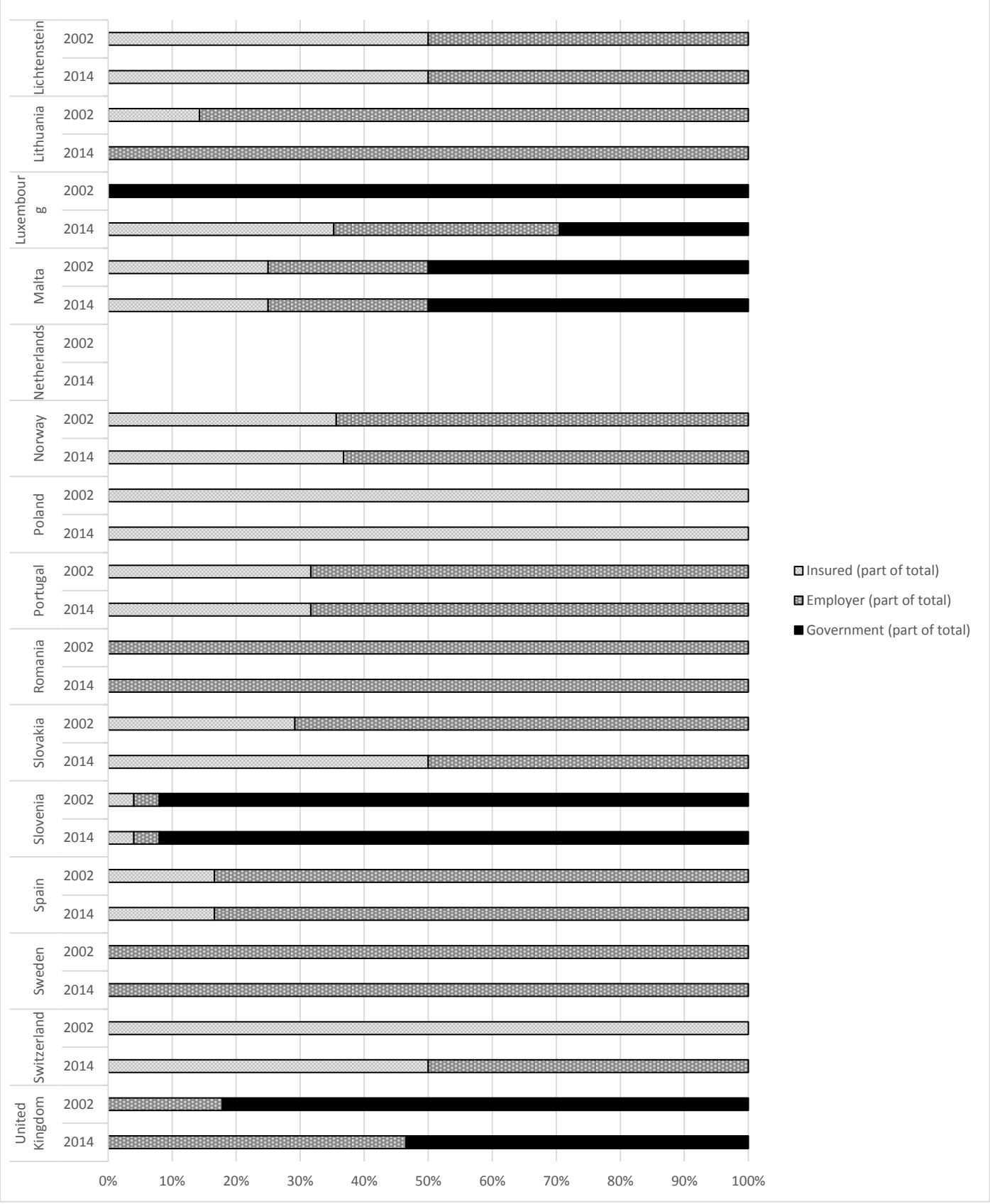
The indicators for most social protection programmes indicate a modest participation of the state in funding social protection. As illustrated by Figure 40a and b, for maternity/parental leave benefits the formal rules indicate a strong presence of the state not only in Denmark, where the state is covering most costs in all programmes, but also in some other countries, such as Austria, where the state tend to play a small role.

Figure 40a: Maternity/parental leave benefit funding, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014



Source: SPEUDA

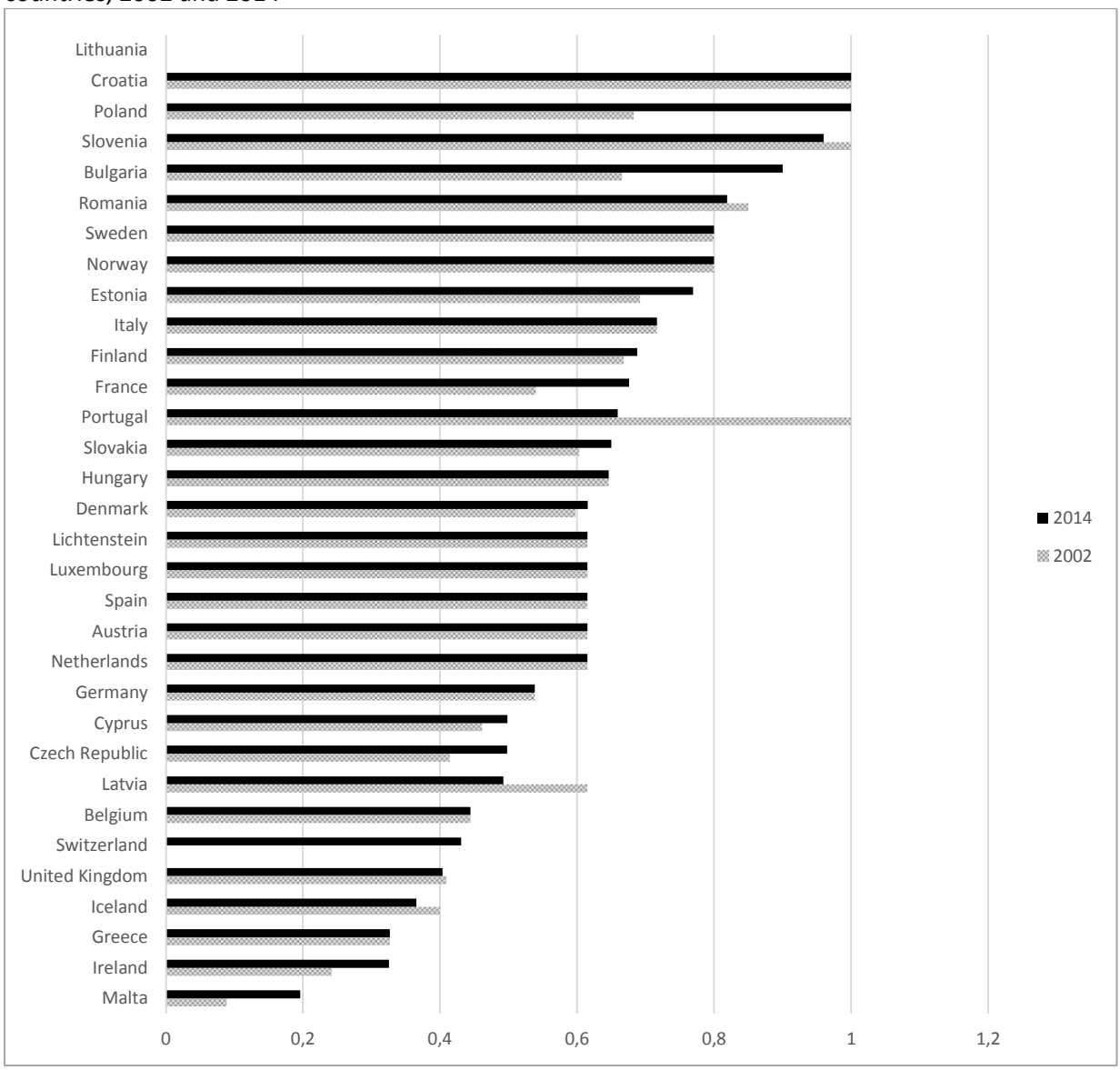
Figure 40b: Maternity/parental leave benefit funding, proportion paid by the insured, employer or state in EEA countries, 2002 and 2014



Source: SPEUDA

The benefit replacements reported in Figure 41 are again related to GDP per capita. They vary a lot between countries but the changes over time are modest with some notable exceptions. A handful of countries provide very generous benefits but a few countries have very low benefits.

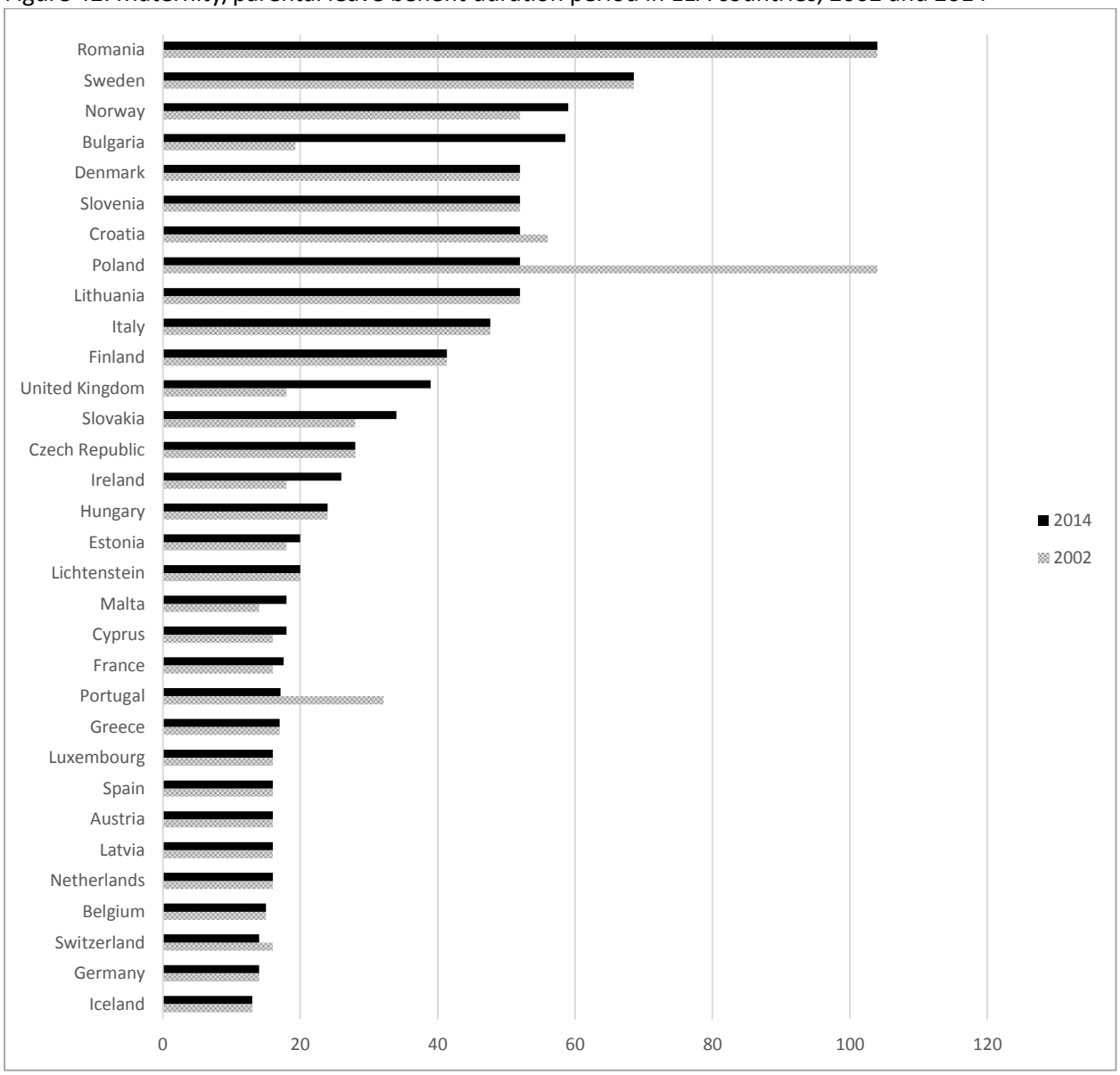
Figure 41: Maternity/parental leave benefit replacement as proportion of GDP per capita in EEA countries, 2002 and 2014



Source: SPEUDA

Figure 42 shows that a number of countries have duration periods of one year or more but that a majority of the countries have shorter duration for these programmes. Almost half of the countries have a duration period of less than 20 weeks. Changes over time go in both directions.

Figure 42: Maternity/parental leave benefit duration period in EEA countries, 2002 and 2014

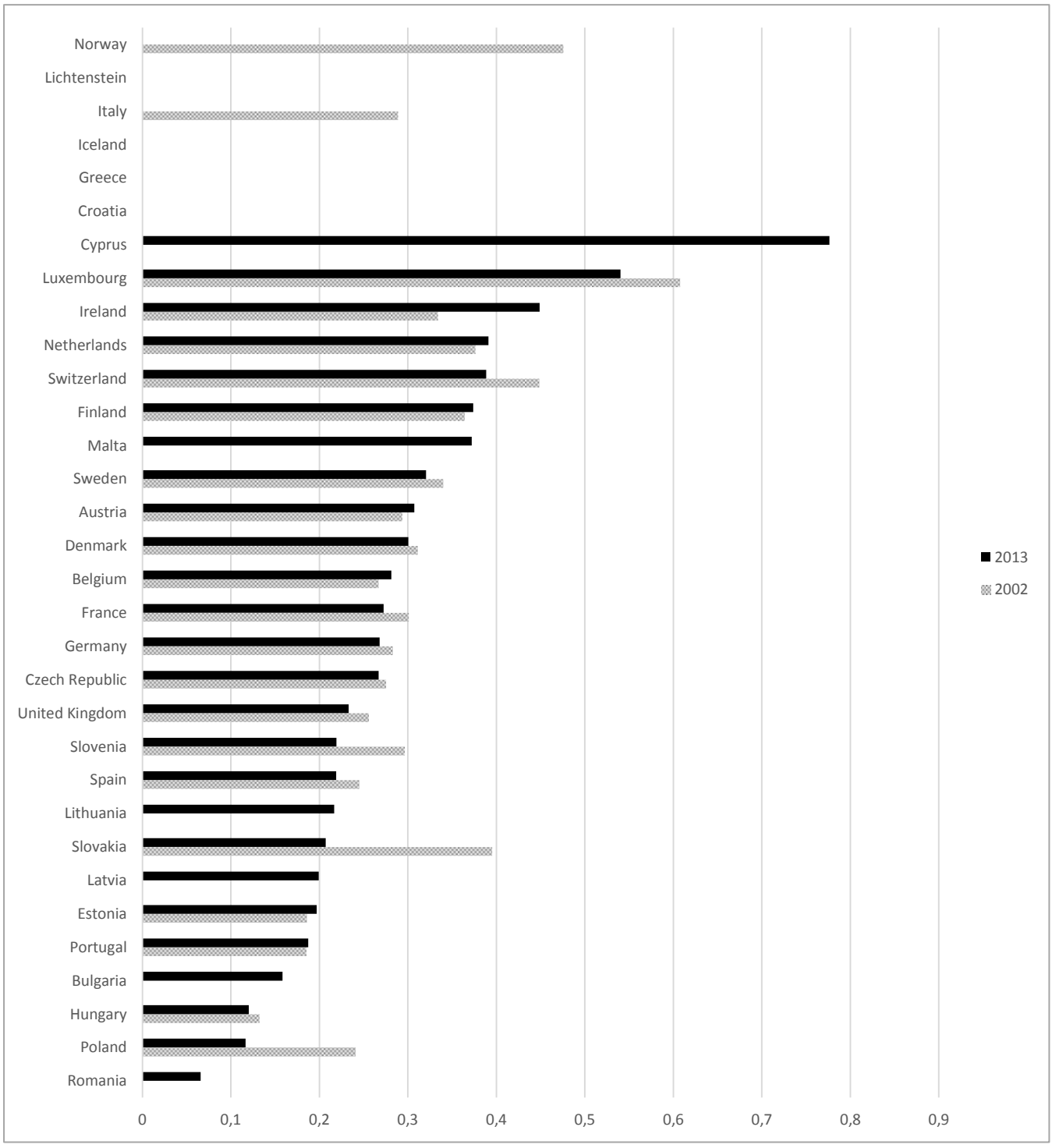


Source: SPEUDA

Minimum benefits

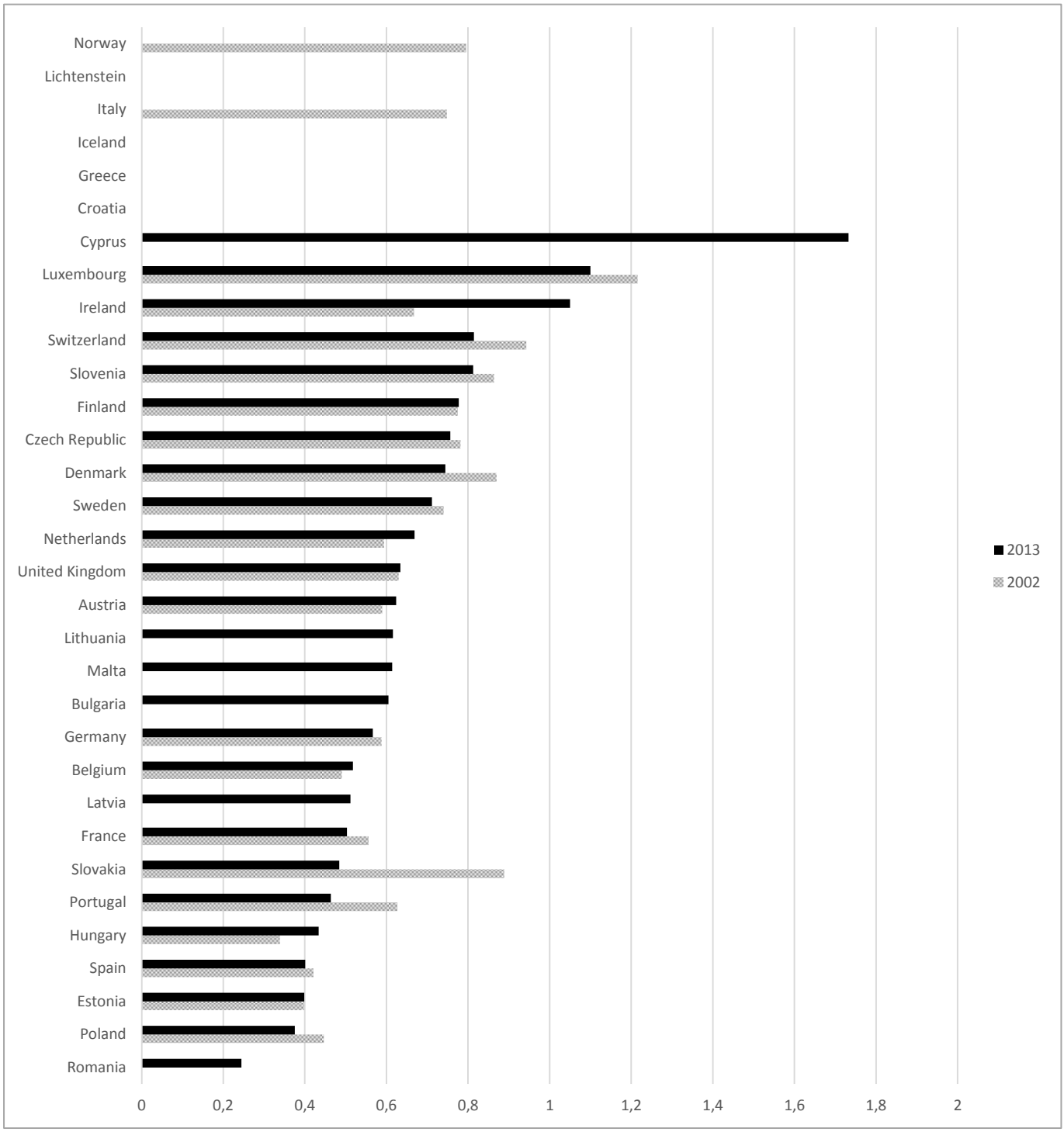
Minimum benefits, aimed at providing a safety net for those who are not included or not adequately protected by social insurance and assimilated schemes, play a rather modest role in terms of overall expenditure among European welfare states (Palme et al 2009). Benefits also tend to be modest but the low expenditures are primarily a consequence of the residual nature in terms of recipiency, i.e. relatively few persons receive them. However, for this work package minimum benefits are of great interest (Ruhs and Palme 2018). SPEUDA includes a set of indicators coded using MISSOC and directly drawn from the SAMIP project (see Appendix). Whereas MISSOC provides indicators on qualifying conditions, the SAMIP based indicators are based on a so called “type case approach” which captures the benefit levels for different categories of households. This approach also generates indicators of the size of each income component as displayed in Figures 43 and 44.

Figure 43: Minimum income protection for a single person household without children in EEA countries, 2002 and 2013. The sum of social assistance standard rates for a single adult person, housing supplement, refundable tax credits and other benefits available for a single person household without children. Average monthly amounts as proportion of an average production worker's wage.



Note: Missing data in original source for Lichtenstein, Greece, Iceland and Croatia, as well as Italy and Norway for 2013
Source: SAMIP (in SPEUDA)

Figure 44: Minimum income protection a two-parent family type-case in EEA countries, 2002 and 2013. The sum of social assistance for a two-parent family with two children, child supplement, housing supplement, refundable tax credits and other benefits available for a two-parent family with two children. Average monthly amounts as proportion of an average production worker's wage.

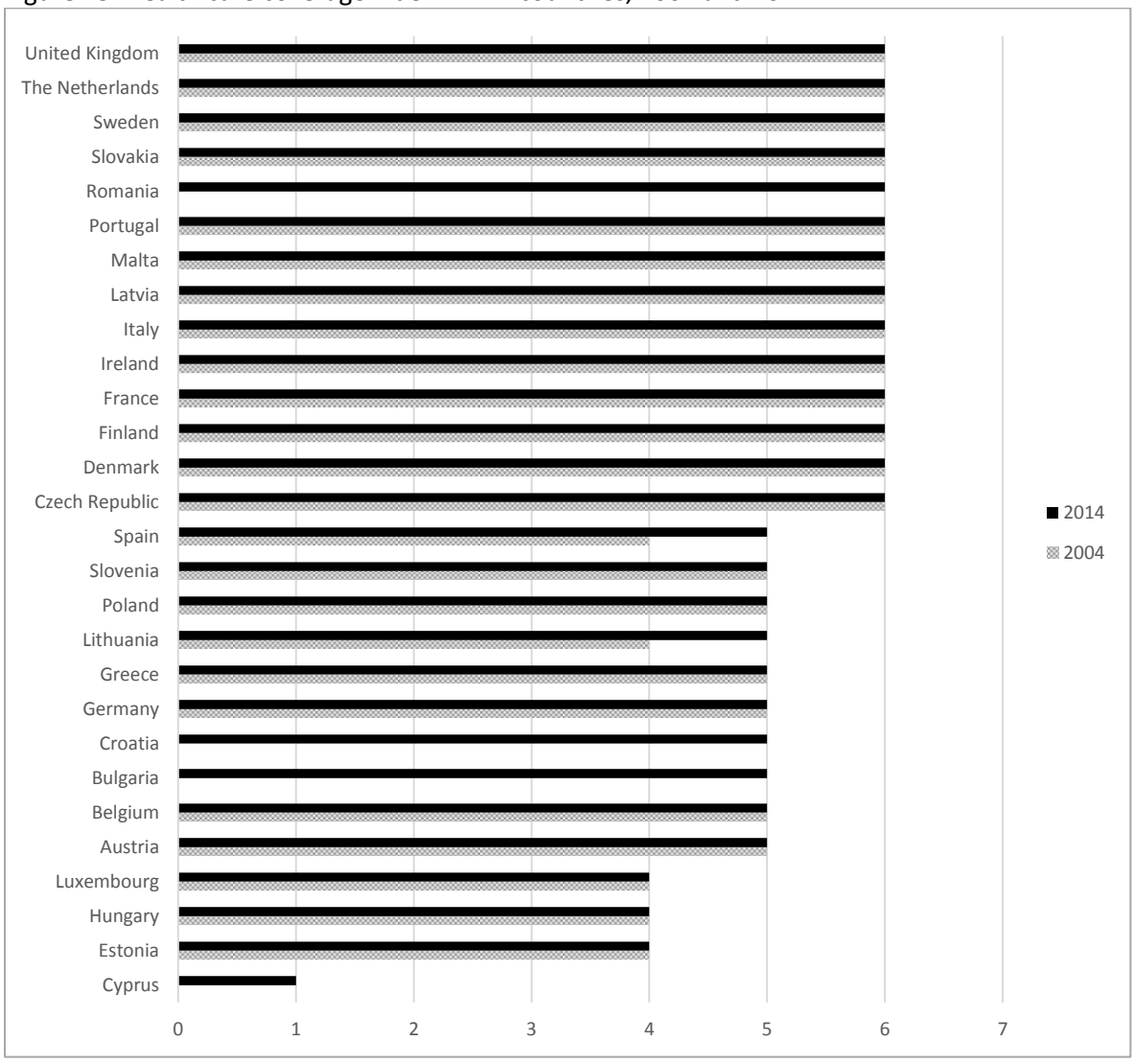


Note: Missing data in original source for Lichtenstein, Greece, Iceland and Croatia, as well as Italy and Norway for 2013
Source: SAMIP (in SPEUDA)

Health care indicators

The SPEUDA data-base further includes a set of more detailed indicators that are designed to capture the multidimensional variation of national health systems. Coverage indicators provide more details about the variation in coverage of different groups (Figure 45 below). Funding indicators illustrate the contributions from the employers, insured persons, and the state but they also provide information about deficits. The qualifying conditions are captured by indicators on residency requirements and on minimum periods for qualification. Benefit indicators provides information about duration of benefits and co-payments of different kinds.

Figure 45: Health care coverage index in EEA countries, 2004 and 2014



Note: The x-axis measures the number of categories of people covered. The list of categories is explained in the Appendix.
Source: SPEUDA (based on MISSOC).

Conclusion

This working paper provides sets of indicators on labour markets and welfare state institutions in Europe. The indicators will inform subsequent analyses of institutional variations across EU countries and over time, and of the potential role of these variations in as sources of political conflicts between EU Member States about whether and how to reform the current rules for free movement (deliverables 7.4, 7.5, and 7.6 of the REMINDER project). The indicators will also feed into the analysis of the determinants of the fiscal effects of labour market mobility in the EEA area (deliverables 4.2 and 4.3 of the REMINDER project).

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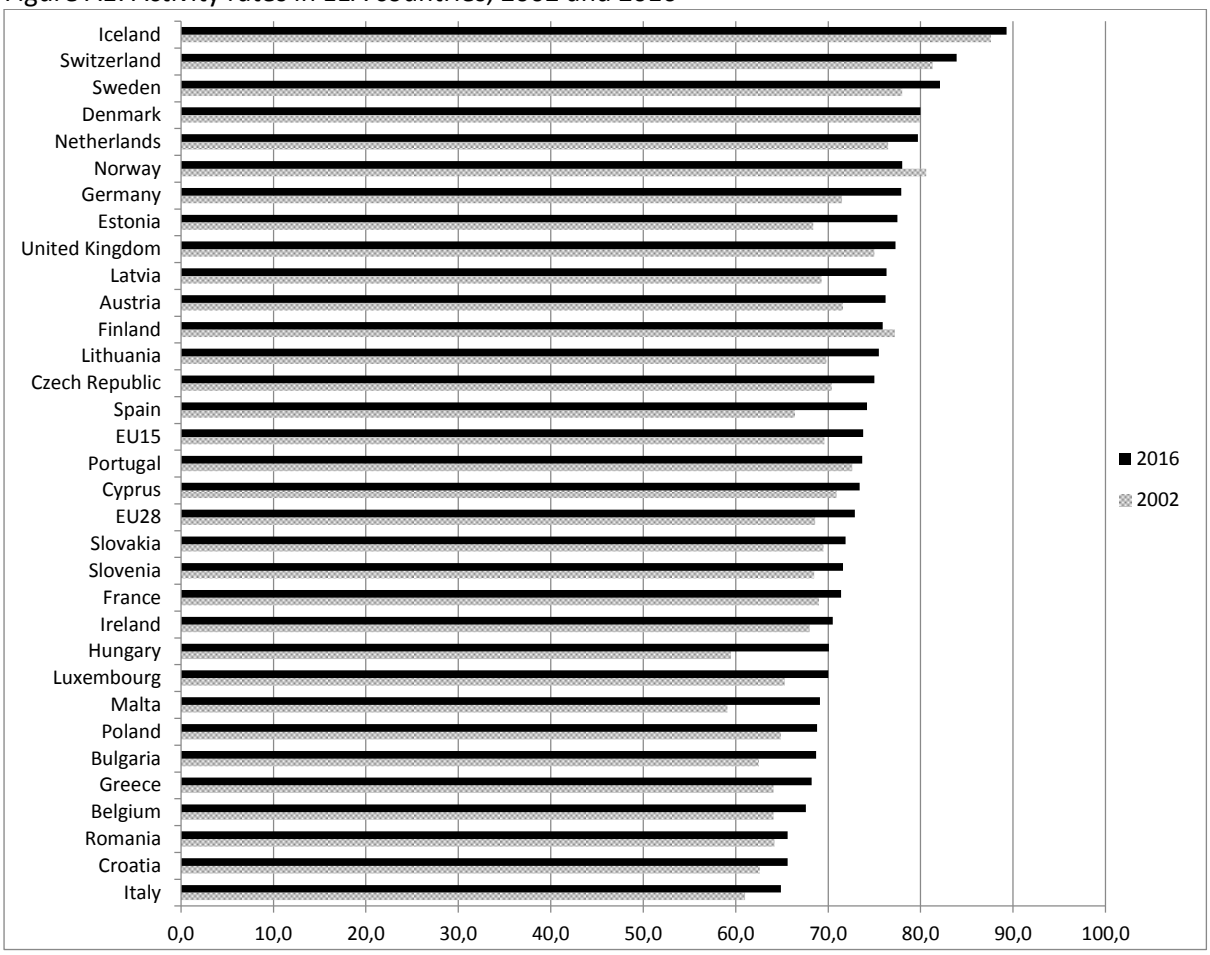
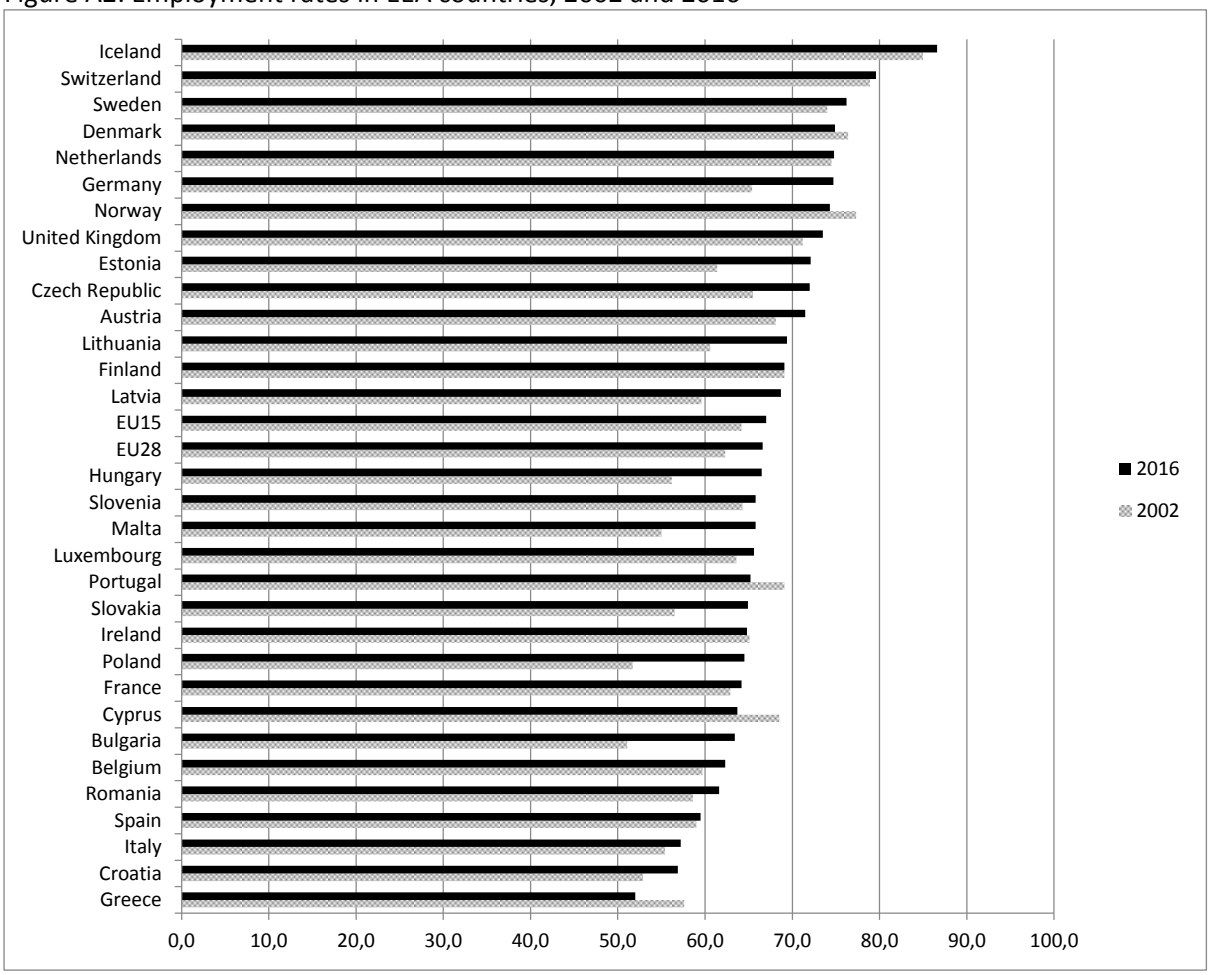
Appendix A: Additional Figures

Figure A1: Activity rates in EEA countries, 2002 and 2016



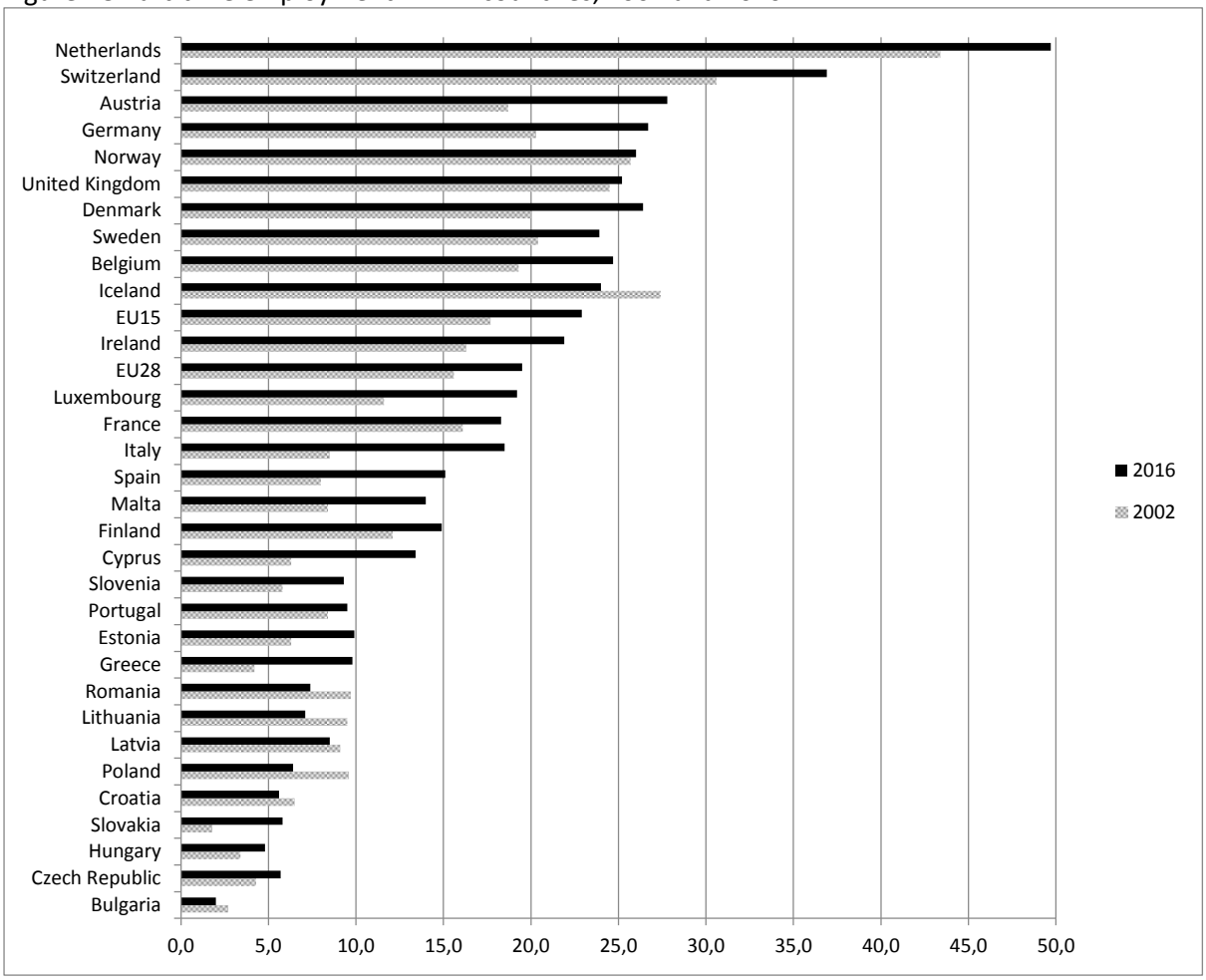
Source: EU-LFS (Eurostat)

Figure A2: Employment rates in EEA countries, 2002 and 2016



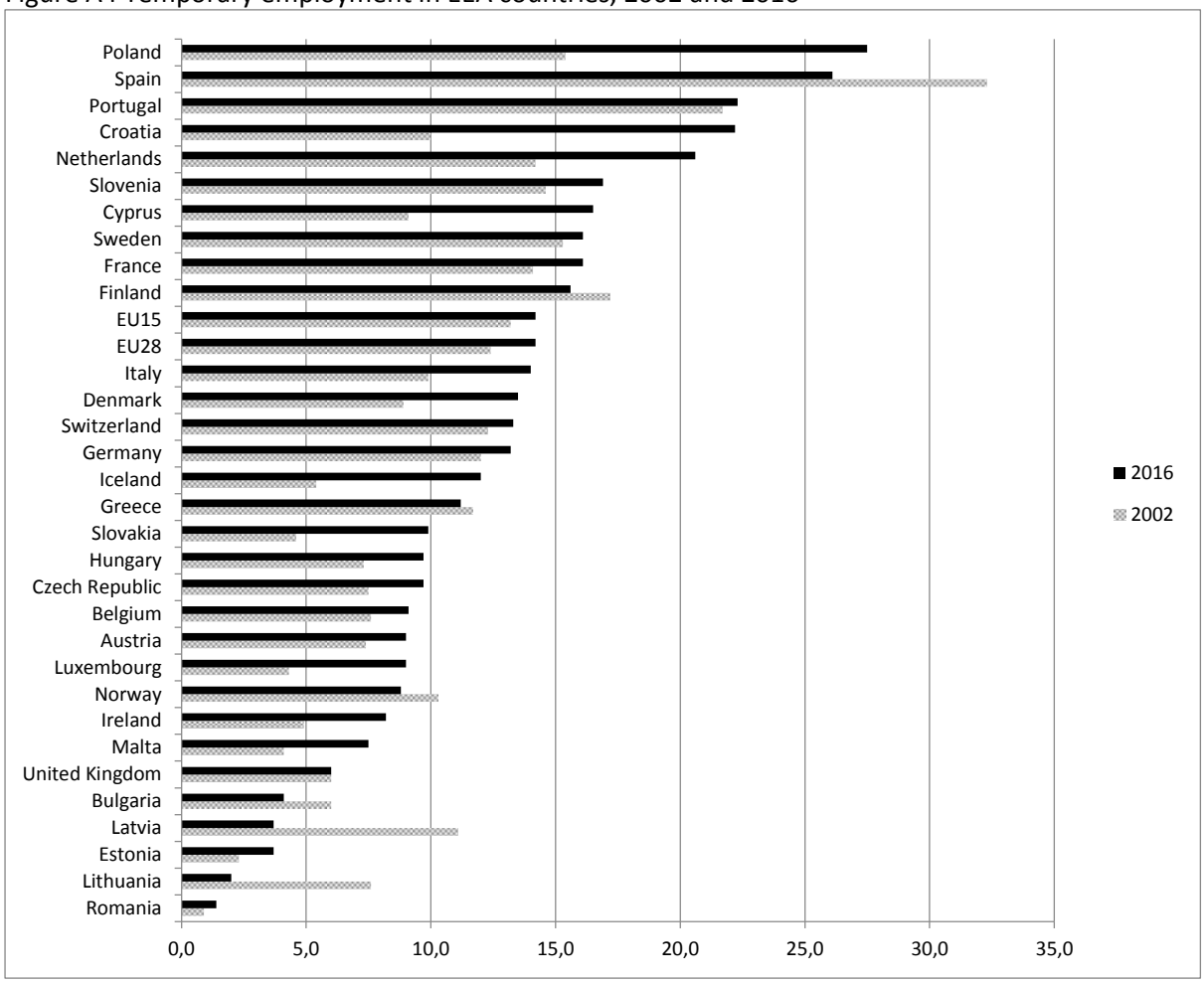
Source: EU-LFS (Eurostat)

Figure A3 Part-time employment in EEA countries, 2002 and 2016



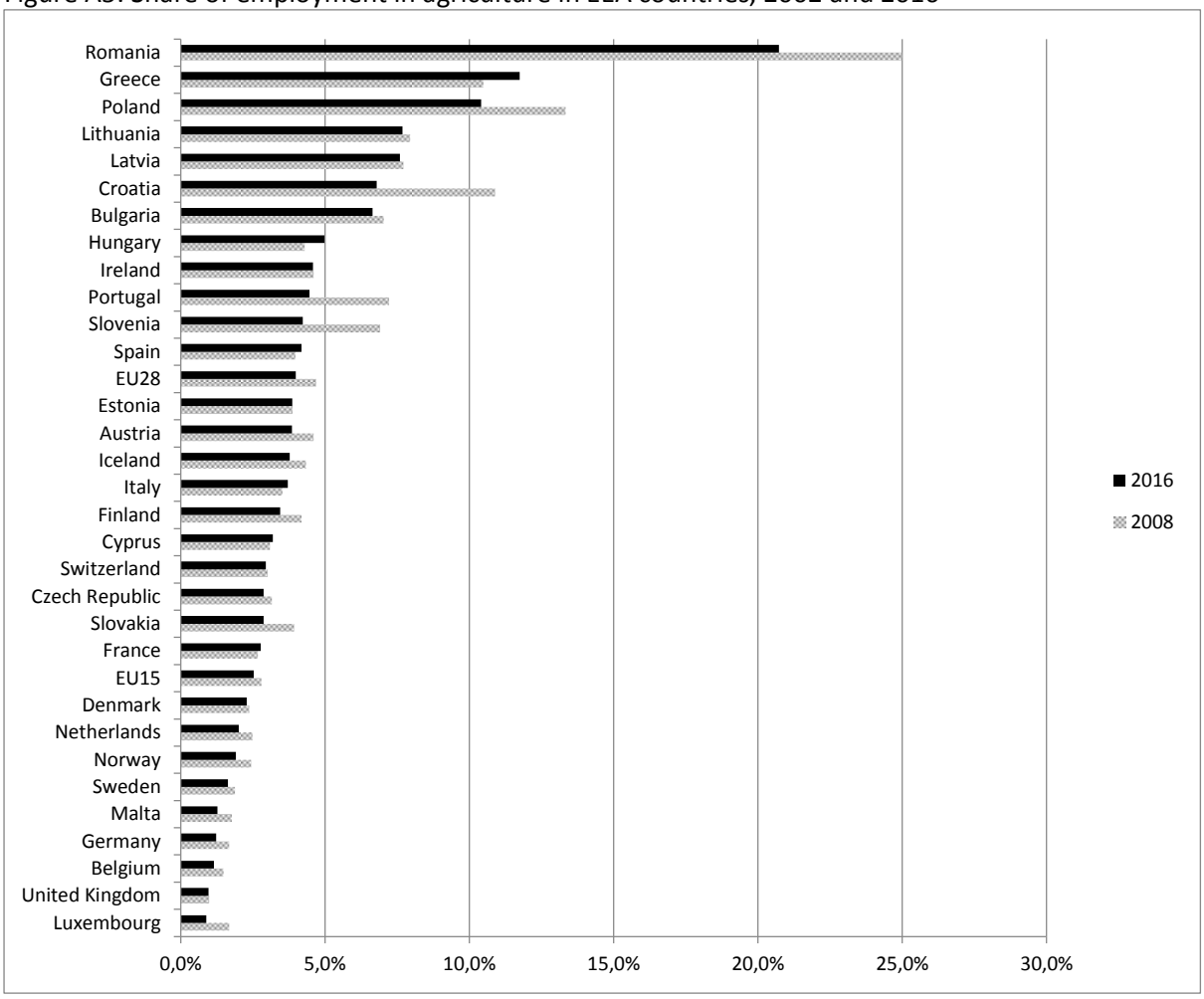
Source: EU-LFS (Eurostat)

Figure A4 Temporary employment in EEA countries, 2002 and 2016



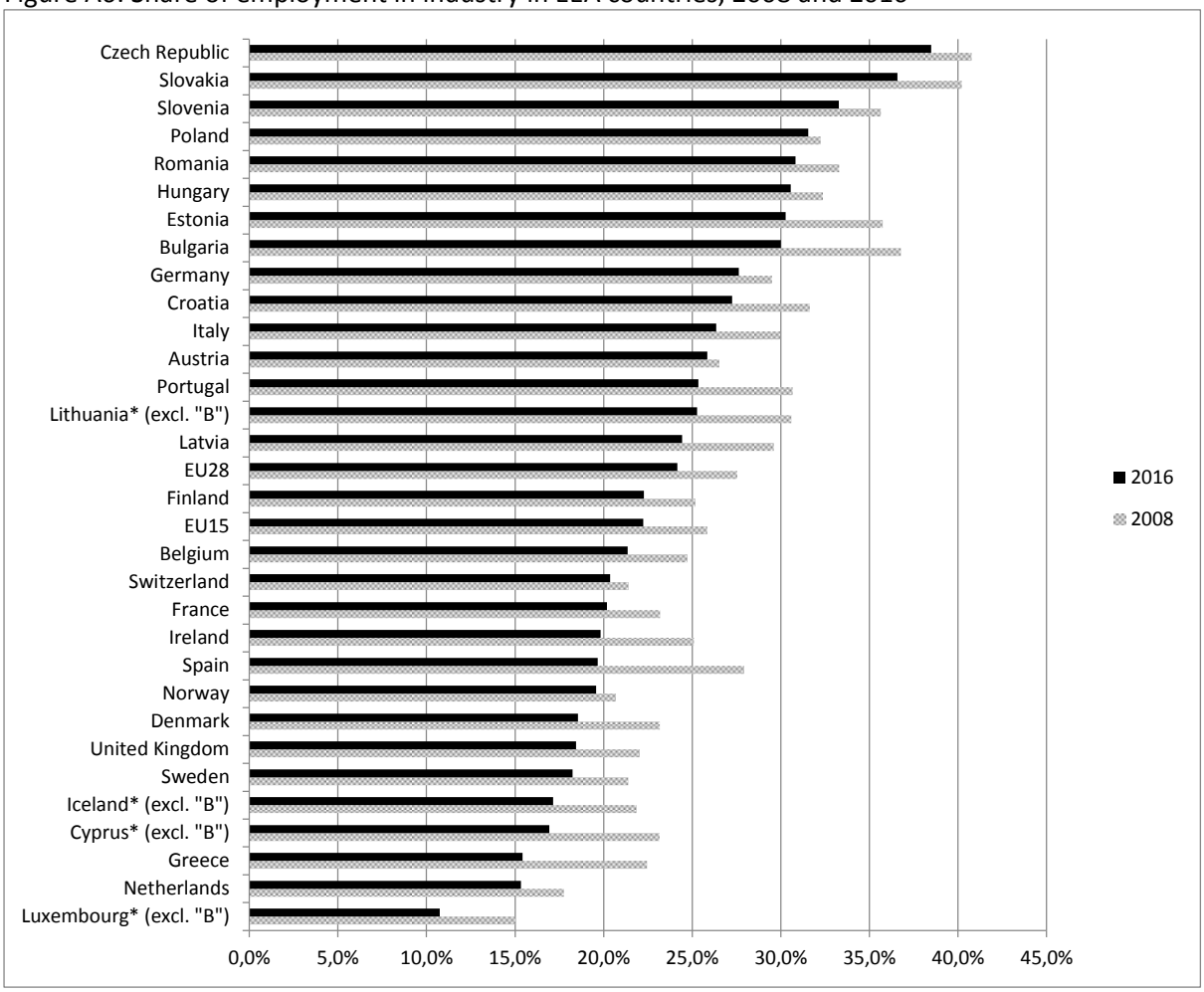
Source: EU-LFS (Eurostat)

Figure A5: Share of employment in agriculture in EEA countries, 2002 and 2016



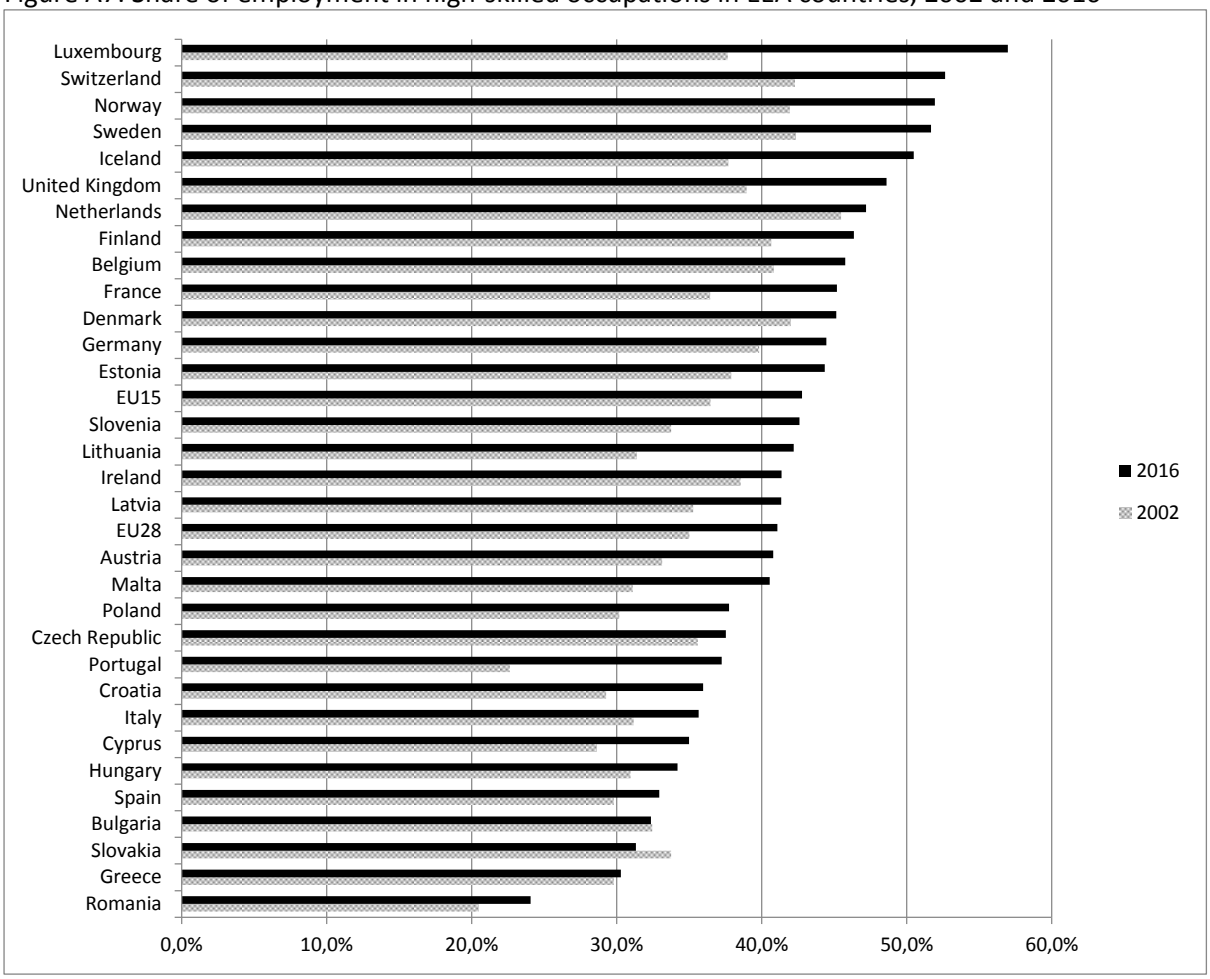
Source: EU-LFS (Eurostat)

Figure A6: Share of employment in industry in EEA countries, 2008 and 2016



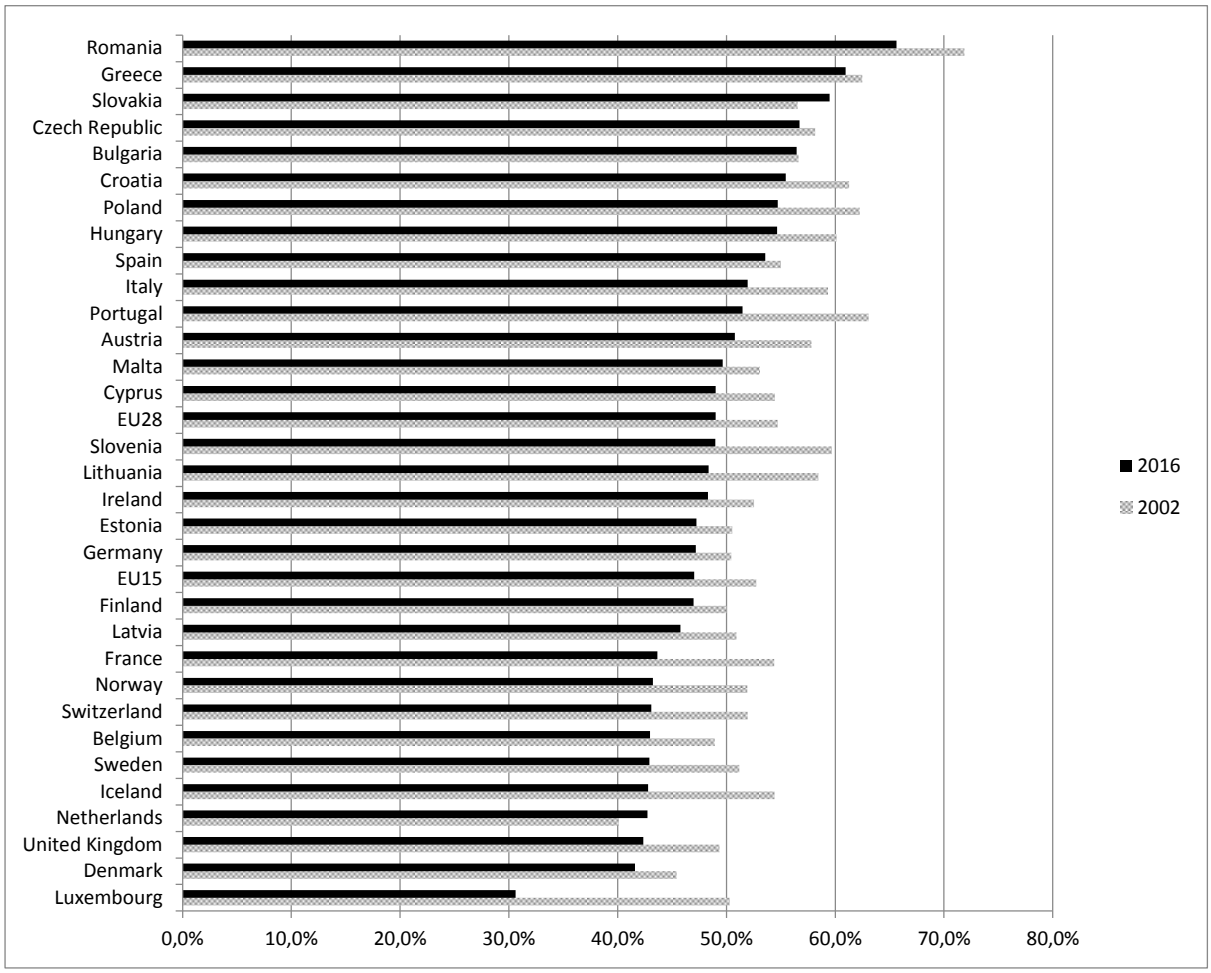
Source: EU-LFS (Eurostat)

Figure A7: Share of employment in high-skilled occupations in EEA countries, 2002 and 2016



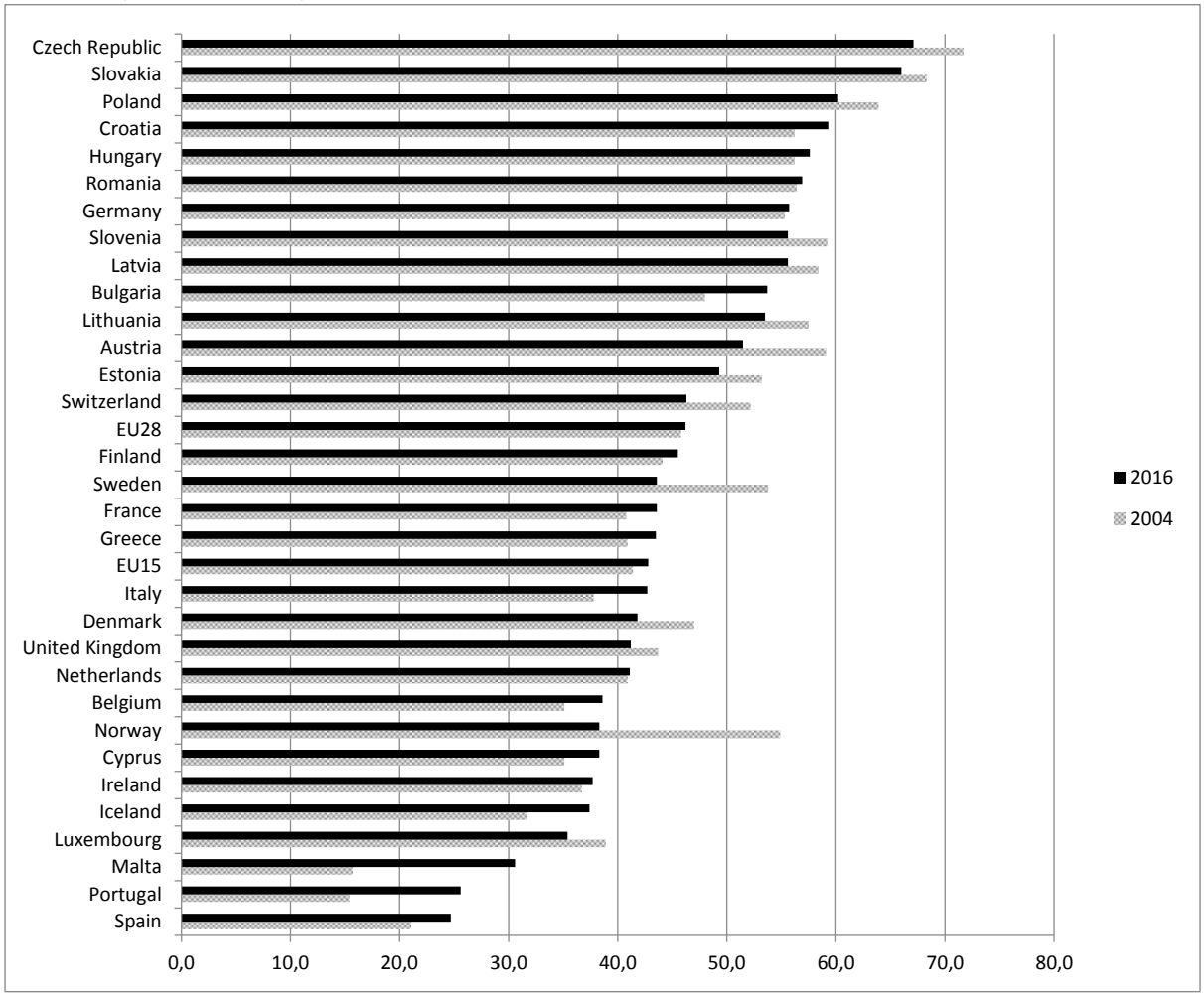
Source: EU-LFS (Eurostat)

Figure A8: Share of employment in medium and lower-skilled occupations in EEA countries, 2002 and 2016



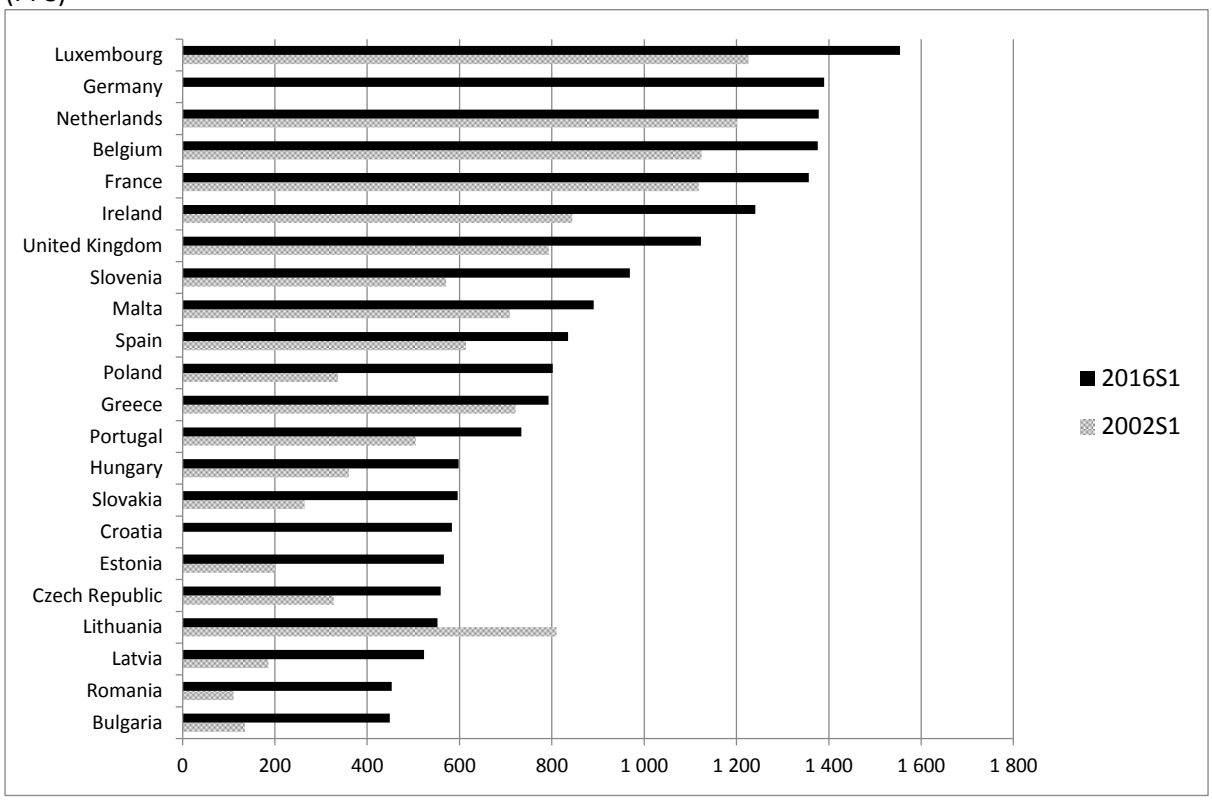
Source: EU-LFS (Eurostat)

Figure A9: Population (aged 15-65) with upper secondary and post-secondary non-tertiary education, EEA countries, 2004 and 2016



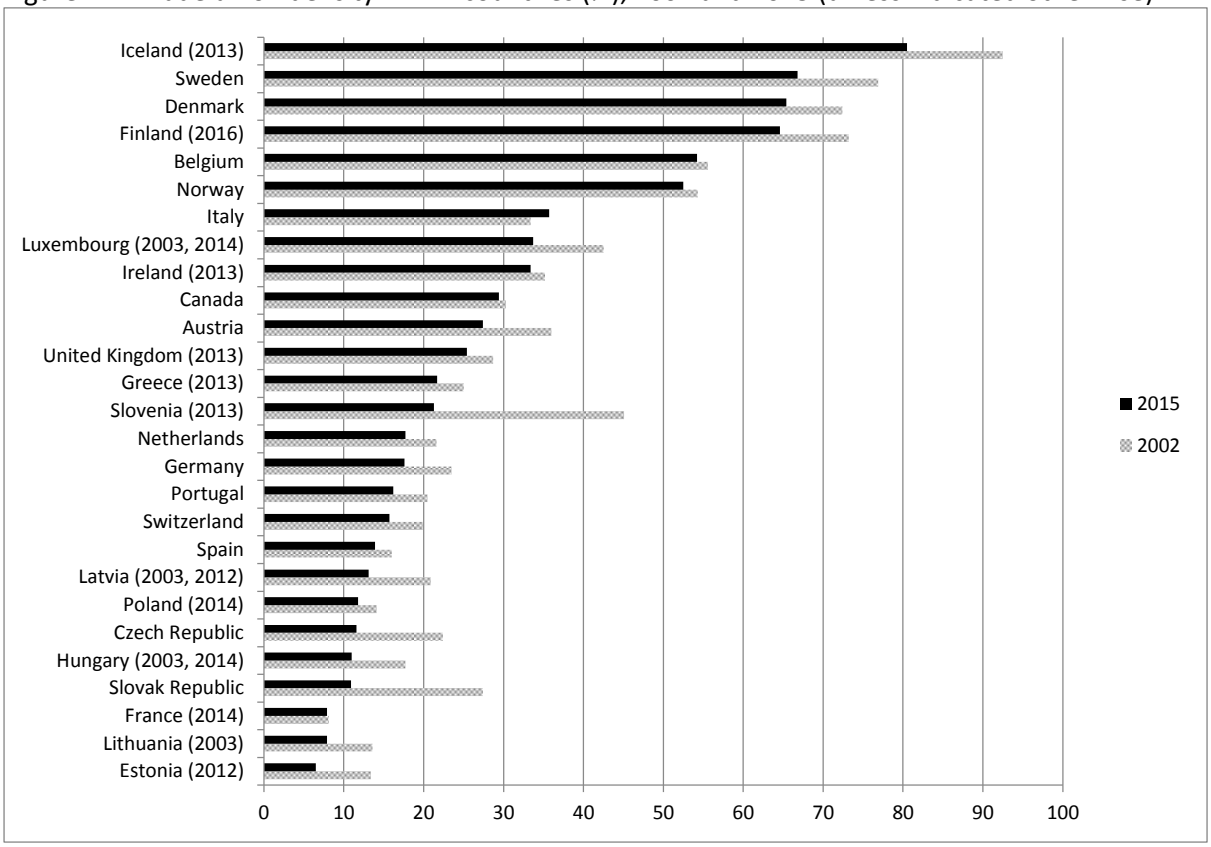
Source: Eurostat

Figure A10 Monthly minimum wage in EEA countries, 2016 and 2002, Purchasing Power Standard (PPS)



Source: Eurostat

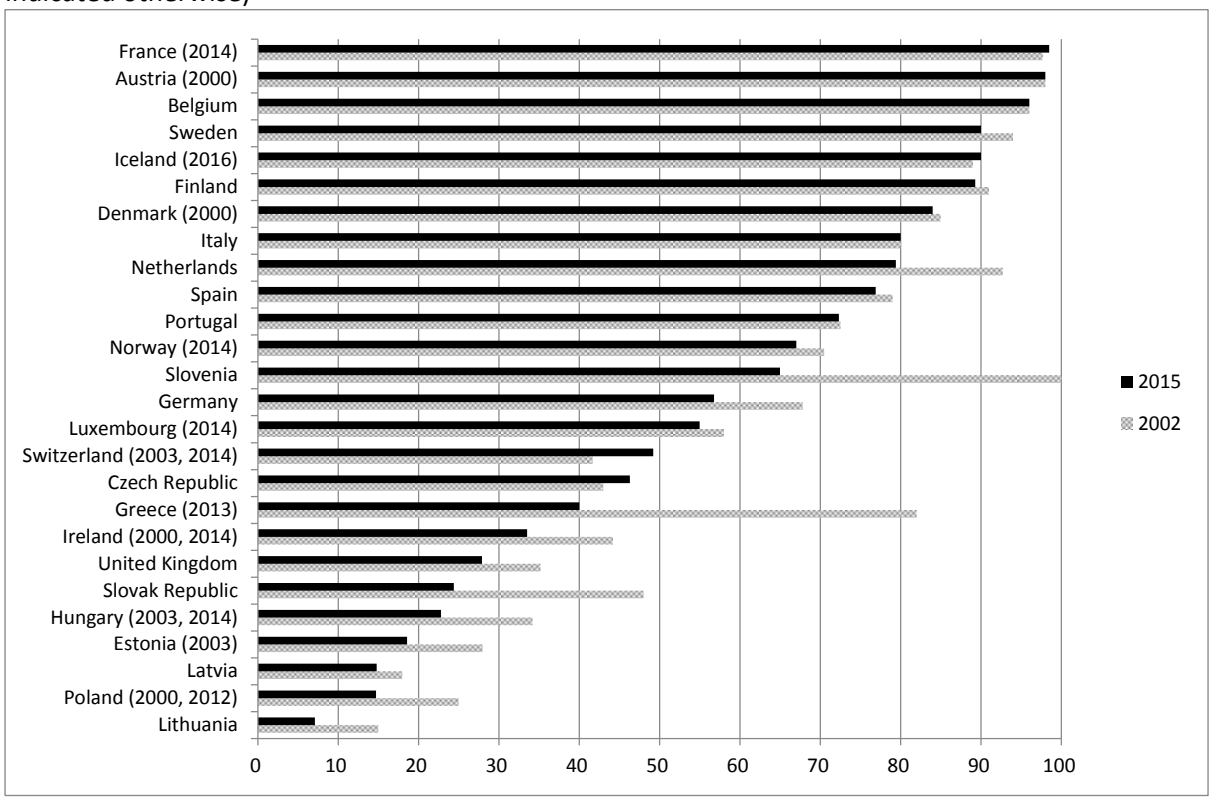
Figure A11 Trade union density in EEA countries (%), 2002 and 2015 (unless indicated otherwise)



Source: OECD

Notes: The years in parentheses indicated the years of the observations (early 2000s, mid 2010s). observations for countries without parentheses refer to 2002 and 2015

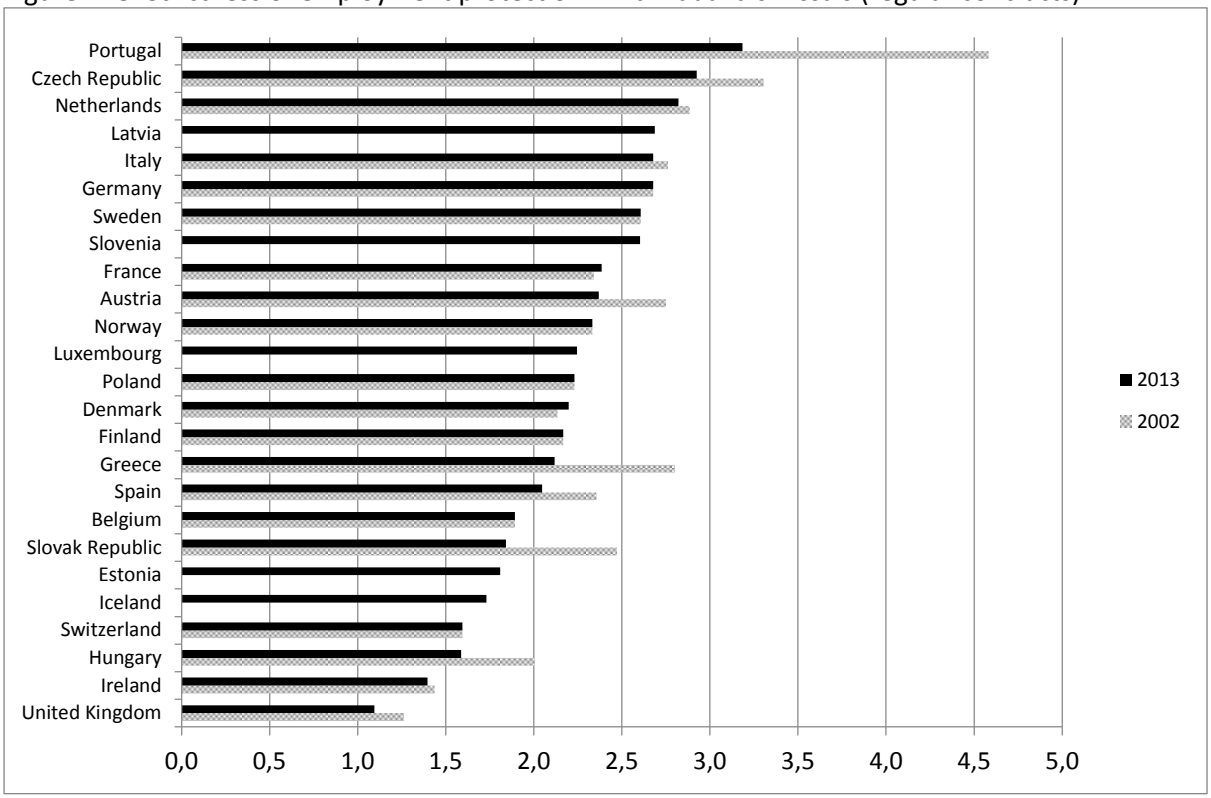
Figure A12 Collective bargaining (% employees covered) in EEA countries, 2002 and 2015 (unless indicated otherwise)



Source: OECD

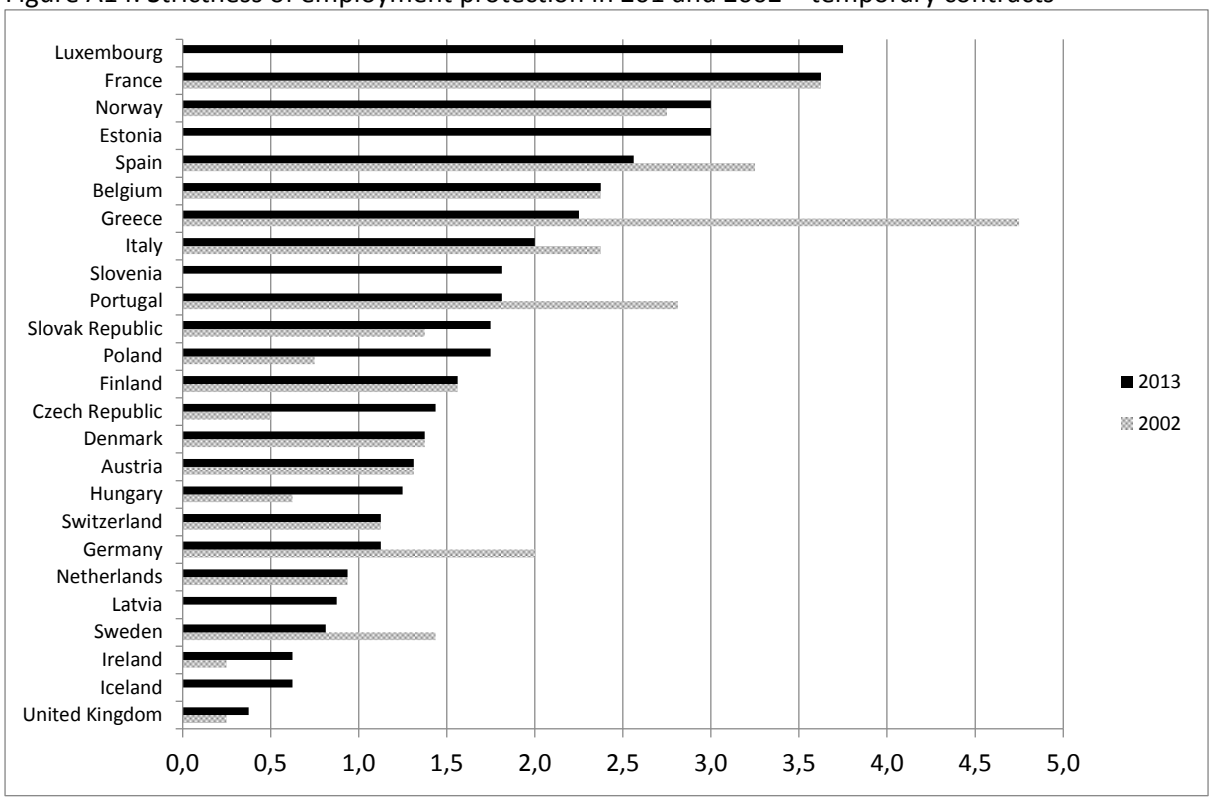
Notes: The years in parentheses indicated the years of the observations (early 2000s, mid 2010s). observations for countries without parentheses refer to 2002 and 2015

Figure A13: Strictness of employment protection – individual dismissals (regular contracts)



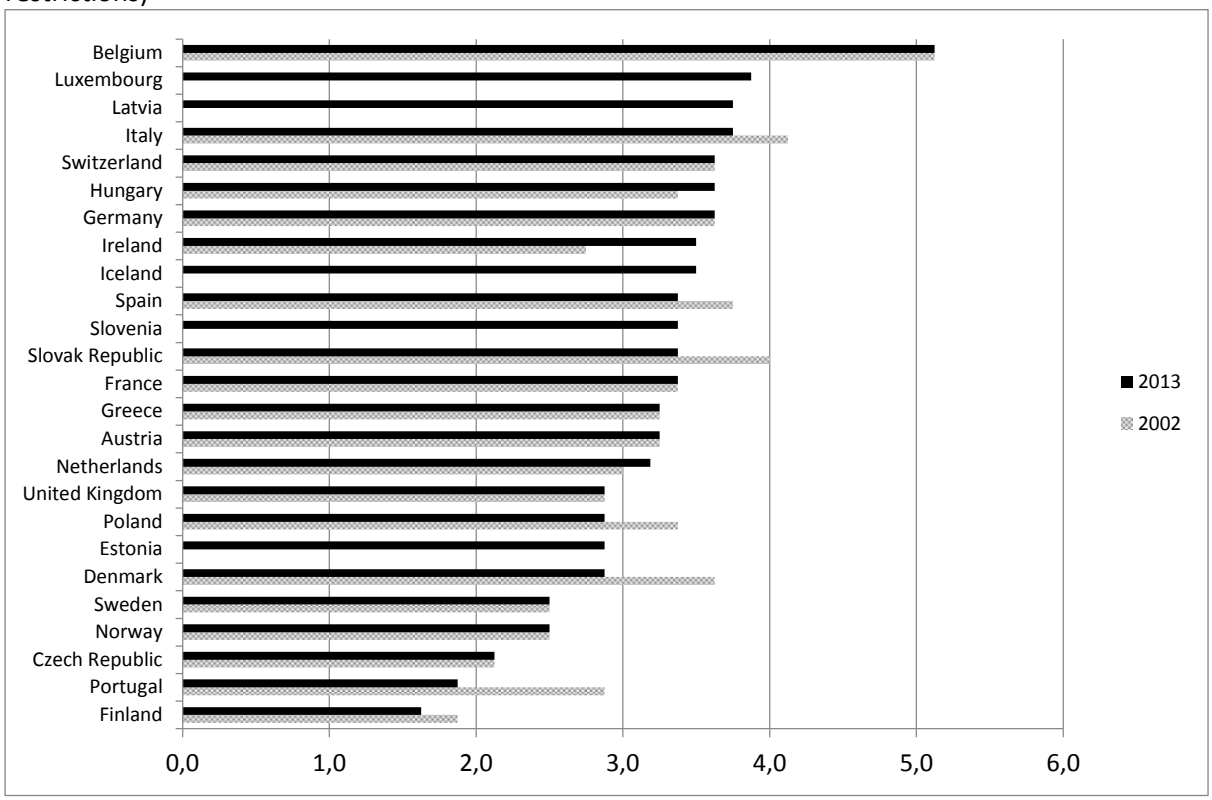
Source: OECD

Figure A14: Strictness of employment protection in 201 and 2002 – temporary contracts



Source: OECD

Figure A15: Strictness of employment protection in 2013 and 2002 – collective dismissals (additional restrictions)



Source: OECD

Appendix B: The Social Protection in Europe Database (SPEUDA)

Introduction

This Appendix provides basic information about SPEUDA, the data-base of social protection indicators that has been compiled within work package 7 of the REMINDER project. The multitude of indicators included in SPEUDA reflects the multidimensionality of *welfare state (social protection) institutions*. The data-base contains comparative and longitudinal data on social protection programmes in 28 European Union (EU) member states and four European Free Trade Association (EFTA) countries. It includes indicators for new indicators that we constructed based on existing indicators taken from legal compilations and other existing data-sets for social protection institutions in 32 European countries. The dataset - SPEUDA - includes factors such as coverage, eligibility, qualifying conditions, generosity and funding of social protection programmes.

Social protection programmes and institutional characteristics covered

The data-base comprises information about seven social protection programmes: Unemployment insurance, Work injury insurance, Sick-cash benefits, Old age pensions, Parental leave/Maternity benefits, Family allowances and Health care, as well as protection measurements regarding guaranteed minimum income (safety nets). In general, the social protection programmes are systems designed to protect individuals against interruption or loss of earnings (and may include additional compensations for certain expenditures). Regarding minimum incomes, the data-base includes measurements on the generosity of means-tested and other targeted benefits for individuals and families in need of social assistance. Within each programme, the indicators are structured according to fixed subdivisions that represent: coverage; funding; qualifying conditions; benefits; and replacement rates.

Data sources

The indicators in the SPEUDA database are coded on the basis of data and information taken from the existing sources listed below:

Social Security Programmes Throughout the World (SSPTW):

Source: https://www.ssa.gov/policy/docs/progdesc/ssptw/

This legislative information presented in a standardized format has been used to collect information about the following social protection programmes:

Unemployment

Compensation for the loss of income resulting from involuntary unemployment.

Work injury

Compensation for work-connected injuries and occupational illnesses

Sick pay

Sickness benefits, which are paid when short term illnesses prevent work

Old age

Benefits providing pensions or lump-sum payments to compensate for loss of work-related income resulting from old age or permanent retirement

Parental leave (maternity/paternity)

Prenatal, obstetric, and postnatal care for working parents

Family allowance

Additional income for families with young children to meet part of the added costs of their support

Mutual Information Systems on Social Protection (MISSOC):

Source: http://missoc.org/MISSOC/INFORMATIONBASE/informationBase.jsp

The database has been used to collect information about the following social protection systems:

Health care

Schemes for health care insurance and health care subsidies

Guaranteed minimum resources

Eligibility standards for social security assistance

Social Assistance and Minimum Income Protection Interim Dataset (SAMIP):

Source: http://www.spin.su.se/datasets/samip

The database has been used to collect information about the following social protection system:

Guaranteed minimum resources

Means-tested benefits calculated for three typical households; a single person, a lone parent, and a two parent family.

World Bank Open Data:

Data on GDP per capita and GNI per capita are collected from the World Bank Open Data.

Source: http://data.worldbank.org/

ILOSTAT:

Data on average incomes are collected from the International Labour Organization's (ILO) database ILOSTAT.

Source: http://www.ilo.org/ilostat/faces/ilostat-home/home?_adf.ctrl-state=15rr743iza_4&_afrLoop=364506191145969#!

Countries and years covered

The countries included in the SPEUDA data-base include the 28 EU member states and four EFTA countries. The countries included in the database, and the years covered for each country in each original source or dataset, are shown in the table below.

Countries	**SSPTW (years covered)**	**MISSOC (years covered)**	**SAMIP (years covered)**
Austria	2002-2014	2004-2016	1990-2013
Belgium	2002-2014	2004-2016	1990-2013
Bulgaria	2002-2014	2007-2016	2007-2013
Croatia	2002-2014	2013-2016	-
Cyprus	2002-2014	2004-2016	2004-2013
Czech Republic	2002-2014	2004-2016	1993-2013
Denmark	2002-2014	2004-2016	1990-2013
Estonia	2002-2014	2004-2016	1995-2013
Finland	2002-2014	2004-2016	1990-2013
France	2002-2014	2004-2016	1990-2013
Germany	2002-2014	2004-2016	1990-2013
Greece	2002-2014	2004-2016	-
Hungary	2002-2014	2004-2016	1992-2013
Iceland (EFTA)	2002-2014	-	1995-2013
Ireland	2002-2014	2004-2016	1990-2013
Italy	2002-2014	2004-2016	1990-2009
Latvia	2002-2014	2004-2016	2004-2013

Lichtenstein (EFTA)	2002-2014	-	-
Lithuania	2002-2014	2004-2016	2004-2013
Luxembourg	2002-2014	2004-2016	1990-2013
Malta	2002-2014	2004-2016	2004-2013
Netherlands	2002-2014	2004-2016	1990-2013
Norway (EFTA)	2002-2014	-	1990-2013
Poland	2002-2014	2004-2016	1995-2013
Portugal	2002-2014	2004-2016	1996-2013
Romania	2002-2014	2007-2016	2007-2013
Slovakia	2002-2014	2004-2016	1993-2013
Slovenia	2002-2014	2004-2016	1992-2013
Spain	2002-2014	2004-2016	1990-2013
Sweden	2002-2014	2004-2016	1990-2013
Switzerland (EFTA)	2002-2014	-	1990-2013
United Kingdom	2002-2014	2004-2016	1990-2013

Note: MISSOC health care data are not available for Norway, Switzerland, Iceland and Lichtenstein

Time-interval of the data in the original sources and data-sets:

SSPTW 2002-2014 (two years interval)

MISSOC 2004-2016 (one year interval)

SAMIP 1990-2013 (one year interval)

Coding of variables

General coding

A number indicators in the SPEUDA data-base are equivalent to the indicators provided by the primary data sources. However, SPEUDA also includes a large number of operationalized and computed (coded) variables. These newly-constructed variables are briefly described below. The coding schemes for all indicators are described in the list of indicators below.

Coverage

Whether different group categories, i.e. employed or self-employed persons, are covered by a specific protection programme is captured by dummy-variables.

"cover_adj_index": the labour force participation rate multiplied by group coverage (ie. whether public and private private sectors as well as self-employed persons are covered by insurance).

"lab_tot_partic": share of the population participating in the labour market, ranging between 0-1.

Funding

Funding principles are presented as 1) percentage of earnings paid by the insured; percentage of payroll paid by the employer; percentage paid by the government, and 2) the contribution of each of these categories as part of the total funding of the benefit programme in question.

Qualifying conditions

There are different types of qualifying conditions relative to each programme (see List of indicators, section 6).

Amount of benefits

Benefits are presented as part of previous salary or as flat-rate depending on the information provided by the original sources or data-sets. Minimum and maximum amount of benefits are calculated as well as minimum and maximum contributions by the insured for each insurance programme.

Replacement rates

Replacement rate represents the level of benefit provision in case of loss of income. The RR-variables are calculated as benefit level as a proportion of national income measurements, in this case GDP per capita and GNI per capita.

General Assumptions

In standardizing programme indicators, the coding is, in some cases, based on assumptions about specific details connected to certain measurements. The general assumptions for programme-specific indicators are listed below.

Old age benefits

When there are two different systems, the older system is coded if this is a legal option for the retired person.

Sick-pay/work injury

Assumption that recipient is not hospitalized.

Maternity/parental leave

Weeks that the father must take out while the mother is on leave are not included in duration and benefit calculations.

Unemployment/sickness/work injury:

When benefits depend on work record e.g. 3-5 or 5-10 years, it is coded for the longer time period.

Family allowance

When stated that the child must be younger than X, X-1 is given as age (e.g. age 15 is coded for Sweden). Benefits calculated for one pre-school and one small school aged child.

Minimum resources

Whether payment to citizens abroad is possible – if no info, the assumption is that it is not possible.

Permanent residence/long-term residence – the limit of minimum 5 years of residence is in accordance with EU regulation of “long-term residence”.

Health care

Information about funding levels missing – instead dummy variable were used to indicate whether categories are contributing.

List of indicators in SPEUDA

	List of indicators	**Code**	**Description**
UNEMPLOYMENT (Voluntary income-related benefit)			
Coverage	Government employees (public employees)	unem_vol_cov_public_employees	Government employees (public employees) covered by voluntary unemployment programme: calculated as 0=no, 1=yes
	Employees	unem_vol_cov_employees	Employees covered by voluntary unemployment programme: calculated as 0=no, 1=yes
	Self-employed	unem_vol_cov_self_employed	Self-employed covered by voluntary unemployment programme: calculated as 0=no, 1=yes
	Domestic	unem_vol_cov_domestic	Domestic workers covered by voluntary unemployment programme: calculated as 0=no, 1=yes
	Farmers self employe	unem_vol_cov_farmers_self	Farmers self-employed covered by voluntary unemployment programme: calculated as 0=no, 1=yes
	Farmers kooperative/agri worker	unem_vol_cov_farmers_koop	Farmers cooperative covered by voluntary unemployment programme: calculated as 0=no, 1=yes
	Universal (all)	unem_vol_cov_uni	Universal coverage of voluntary unemployment

			programme: calculated as 0=no, 1=yes
	Coverage (index)	unem_vol_cov_index	Coverage aggregation, 1-7
	cover_adj_index	unem_vol_cov_adj_index	Share of labour market participation multiplied with group coverage (i.e. whether public, private and self-employed are covered by insurance)
	lab_tot_partic	unem_vol_lab_partic	Share of population participating in the labour market, 0-1
Funding	Insured (percentage of earnings)	unem_vol_fund_insured_proc	Percentage of earnings paid by the insured
	Employer (percentage of payroll)	unem_vol_fund_employer_proc	Percentage of payroll paid by the employer
	Government	unem_vol_fund_gov_proc	Percentage paid by the government
	any deficits	unem_vol_fund_def	If the government covers deficits, 1=yes, 0=no
	Insured (part of total)	unem_vol_fund_insured_prop	Proportion of funding paid by the insured
	Employer (part of total)	unem_vol_fund_employer_prop	Proportion of funding paid by the employer
	Government (part of total)	unem_vol_fund_gov_prop	Proportion of funding paid by the government
Qualifying conditions	Work record (weeks)	unem_vol_cond_work-record	Estimated work record for benefits eligibility (weeks)
	Reference period (weeks)	unem_vol_cond_ref-period	Estimated time period for benefits eligibility (weeks)
Benefits	Benefits (percentage of	unem_vol_ben_perc	Benefit level as percentage

	previous salary)		of previous salary
	Benefits 26 weeks	unem_vol_ben_26w	Benefit level after 26 weeks
	Minimum benefit	unem_vol_ben_min	Minimum amount of benefit (% of previous salary)
	Maximum benefit	unem_vol_ben_max	Maximum amount of benefit (% of previous salary)
	Minimum contribution	unem_vol_ben_min_contrib	Minimum contribution for eligibility of benefit
	Maximum contribution	unem_vol_ben_max_contrib	Maximum contribution for eligibility of benefit
	Duration (days)	unem_vol_ben_dur	Duration of benefit (days)
Raplacement rate variables	RR_gdp	unem_vol_gdp_rr	Replacement rate of benefit comparatively to Gross Domestic Product/month
	RR_average income	unem_vol_ai_rr	Replacement rate of benefit comparatively to average income/month
	RR_gni pc	unem_vol_gni_rr	Replacement rate of benefit comparatively to Gross National Income/month
<u>WORK INJURY</u>			
Coverage	Government employees (public employees)	work_injury_cov_publ_employ	Government employees (public employees) covered by work injury insurance: calculated as 0=no, 1=yes
	Employees	work_injury_cov_employ	Employees covered by work injury insurance: calculated as 0=no, 1=yes
	Self-employed	work_injury_cov_self_employ	Self-employed covered by work injury insurance:

			calculated as 0=no, 1=yes
	Domestic	work_injury_cov_dom	Domestic workers covered by work injury insurance: calculated as 0=no, 1=yes
	Farmers self-employed	work_injury_cov_farmers	Self-employed farmers covered by work injury insurance: calculated as 0=no, 1=yes
	Farmers kooperative/agri worker	work_injury_cov_farmers_koop	Farmers cooperative covered by work injury insurance: calculated as 0=no, 1=yes
	Universal (all)	work_injury_cov_uni	Universal coverage of work injury insurance: calculated as 0=no, 1=yes
	Coverage (index)	work_injury_cov_index	Coverage aggregation, 1-7
	cover_adj_index	work_injury_cov_adj_index	Share of labour market participation multiplied with group coverage (ie. whether public, private and self-employed are covered by insurance)
	lab_tot_partic	work_injury_lab_partic	Share of population participating in the labour market, 0-1
	Conditional/means-testing of employees	work_injury_cov_employ_means	If work injury insurance programme is conditional and/or means-tested for employees: calculated as 0=no, 1=yes
Funding	Insured (percentage of earnings)	work_injury_fund_insured_proc	Percentage of earnings paid by the insured
	Employer (percentage of	work_injury_fund_employer	Percentage of earnings paid

	payroll)	_proc	by the employer
	Government	work_injury_fund_gov_proc	Percentage paid by the government
	Insured (part of total)	work_injury_fund_insured_ prop	Proportion of funding paid by the insured
	Employer (part of total)	work_injury_fund_employer _prop	Proportion of funding paid by the employer
	Government (part of total)	work_injury_fund_gov_prop	Proportion of funding paid by the government
	any deficits	work_injury_fund_def	If government covers deficits, 1=yes, 0=no
Qualifying conditions	Work record (weeks)	work_inj_cond_work-record	Estimated work record for benefits eligibility (weeks)
	Reference period (weeks)	work_inj_cond_ref-period	Estimated time period of employment for benefits eligibility (weeks)
Benefits (temporary disability)	Benefits (percentage of previous salary)	work_injury_ben_perc	Benefit level as percentage of previous salary
	Benefits 26 weeks	work_injury_ben_26w	Benefit level after 26 weeks
	Minimum	work_injury_ben_min	Minimum amount of benefit per day
	Maximum	work_injury_ben_max	Maximum amount of benefit per day
	Minimum contribution	work_injury_ben_min_inc	Minimum annual income used to calculate benefit
	Maximum contribution	work_injury_ben_max_inc	Maximum annual income used to calculate benefit
	Duration (days)	work_injury_ben_dur	Duration of benefit (days)
	Until full recovery or	work_injury_ben_full	Benefits until full recovery

	permanent disability		or permanent disability
	Employer liability/labor code	work_injury_ben_liability	If workers are protected through employer liability/labour codes, 0=no, 1=yes
Benefits (permanent disability)	Lump-sum or Pension	work_injury_per_ben_lump	Benefit level in case of permanent disability: Lump-sum or Pension
	Benefits (percentage of previous salary)	work_injury_per_ben_perc	Benefit level as percentage of previous salary
	Minimum	work_injury_per_ben_min	Minimum amount of benefit per day
	Maximum	work_injury_per_ben_max	Maximum amount of benefit per day
	Minimum contribution	work_injury_per_ben_min_ contrib	Minimum annual income used to calculate benefit
	Maximum contribution	work_injury_per_ben_max_ contrib	Maximum annual income used to calculate benefit
Survivors benefits	Survivors: Lump-sum or pensions	work_injury_surv_ben_lum p	Benefits for widow or widower as lump-sum
	Survivors Benefits	work_injury_surv_ben	Benefits for widow or widower as percentage of previous earnings
Raplacement rate variables	RR_gdp	work_injury_gdp_rr	Replacement rate of benefit comparatively to Gross Domestic Product/month
	RR_average income	work_injury_ai_rr	Replacement rate of benefit comparatively to average income/month
	RR_gni pc	work_injury_gni_rr	Replacement rate of benefit comparatively to Gross National Income/month

SICKPAY			
Coverage	Government employees (public employees)	sick_cov_publ_employ	Government employees (public employees) covered by sickness insurance: calculated as 0=no, 1=yes
	Employees	sick_cov_employ	Employees covered by sickness insurance: calculated as 0=no, 1=yes
	Self-employed	sick_cov_self_employ	Self-employed covered by sickness insurance: calculated as 0=no, 1=yes
	Deomestic	sick_cov_jobseekers	Jobseekers covered by sickness insurance: calculated as 0=no, 1=yes
	Farmers self-employed	sick_cov_farmers	Self-employed farmers covered by sickness insurance: calculated as 0=no, 1=yes
	Farmers kooperative/agri worker	sick_cov_farmers_koop	Farmers kooperative covered by sickness insurance: calculated as 0=no, 1=yes
	Universal (all)	sick_cov_uni	Universal coverage of sickness insurance: calculated as 0=no, 1=yes
	Coverage (index)	sick_cov_index	Coverage aggregation, 1-7
	cover_adj_index	sick_cov_adj_index	Share of labour market participation multiplied with group coverage (ie. whether public, private and self-employed are covered by insurance)
	lab_tot_partic	sick_lab_partic	Share of population participating in the labour

			market, 0-1
	Conditions	sick_cov_cond	Conditions for sickness insurance coverage
Funding	Insured (percentage of earnings)	sick_fund_insured_proc	Percentage of earnings paid by the insured
	Employer (percentage of payroll)	sick_fund_employer_proc	Percentage of earnings paid by the employer
	Government	sick_fund_gov_proc	Percentage paid by the government
	Insured (part of total)	sick_fund_insured_prop	Proportion of funding paid by the insured
	Employer (part of total)	sick_fund_employer_prop	Proportion of funding paid by the employer
	Government (part of total)	sick_fund_gov_prop	Proportion of funding paid by the government
	Deficits	sick_fund_def	If government covers deficits, 1=yes, 0=no
	Work record (weeks)	sick_cond_work-record	Estimated work record for benefits eligibility (weeks)
	Reference period (weeks)	sick_cond_ref-period	Estimated time period of employment for benefits eligibility (weeks)
Benefits	Benefits (percentage of previous salary)	sick_ben_perc	Benefits as percentage of previous salary paid initially or per month if flat-rate
	Benefits 26 weeks	sick_ben_26w	Benefit level after 26 weeks
	Minimum amoun (month)	sick_ben_min	Minimum amount of benefit per month
	Maximum (month)	sick_ben_max	Maximum amount of benefit per month

	Minimum contribution	sick_ben_min_inc	Minimum annual income used to calculate benefit
	Maximum contribution	sick_ben_max_inc	Maximum annual income used to calculate benefit
	Duration	sick_ben_dur	Duration of benefit
	Employer liability/labor code	sick_ben_liability	If workers are protected through employer liability/labor codes, 0=no, 1=yes
	Medical benefits	sick_ben_medical	Medical benefits (pecentage paid by employer/government)
Raplacement rate variables	RR_gdp	sick_gdp_rr	Replacement rate of benefit comparatively to Gross Domestic Product/month
	RR_average income	sick_ai_rr	Replacement rate of benefit comparatively to average income/month
	RR_gni pc	sick_gni_rr	Replacement rate of benefit comparatively to Gross National Income/month
<u>OLD AGE</u>			
Coverage	Government employees (public employees)	old_earning_cov_publ_empl oy	Government employees (public employees) covered by earnings-related pensions: calculated as 0=no, 1=yes
	Employees	old_earning_cov_employ	Employees covered by earnings-related pension: calculated as 0=no, 1=yes
	Self-employed	old_earning_cov_self_empl oy	Self-employed covered by earnings-related pension:

			calculated as 0=no, 1=yes
	Domestic	old_earning_cov_dom	Domestic workers covered by earnings-related pension: calculated as 0=no, 1=yes
	Farmer self-employed	old_earning_cov_farmers	Self-employed farmers covered by earnings-related pension: calculated as 0=no, 1=yes
	Farmers koperative/agri worker	old_earning_cov_farmers_koop	Farmers kooperative covered by earnings-related pension: calculated as 0=no, 1=yes
	Universal (all)	old_earning_cov_uni	Universial coverage of earnings-related pension: calculated as 0=no, 1=yes
	Coverage (index)	old_earning_cov_index	Coverage aggregation, 1-7
	cover_adj_index	old_earning_cov_adj_index	Share of labor market participation multiplied with group coverage (ie. whether public, private and self-employed are covered by insurance)
	lab_tot_partic	old_earning_lab_partic	Share of population participating in the labor market, 0-1
	Condition/means-tested	old_earning_cov_means	Conditional/means-testing of employees: calculated as 0=no, 1=yes
Funding	Insured (percentage of earnings)	old_earning_fund_insured_proc	Percentage of earnings paid by the insured (for earnings-related pension programme)
	Employer (percentage of	old_earning_fund_employer	Percentage of payroll paid by the employer (for

	payroll)	_proc	earnings-related pension programme)
	Government	old_earning_fund_gov_proc	Percentage paid by the government (for earnings-related pension programme)
	Deficits	old_earning_fund_def	If government covers deficits, 1=yes, 0=no
	Insured (part of total)	old_earning_fund_insured_ prop	Proportion of funding paid by the insured
	Employer (part of total)	old_earning_fund_employer _prop	Proportion of funding paid by the employer
	Government (part of total)	old_earning_fund_gov_prop	Proportion of funding paid by the government
	Male Standard retirement age	old_retire_age_male	Male Standard retirement age
	Female Standard retirement age	old_retire_age_female	Female Standard retirement age
	Minimum contribution years/work record	old_earning_con_work_rec	Minimum work record for recieving earnings-related old-age benefits
Benefits	*Base pension (month)*	*old_base_ben*	*Benefit level for basic pension programme (per month)*
	Benefits (per month)	old_earning_ben	Income related pensions benefits (percentage of previous income, per month)
	Reference earnings (for calculating benefits)	old_earning_ben_ref_earn	Reference earnings for calculating benefits
	Minimum (per month)	old_earning_ben_min	Minimum amount of benefit per month

	Maximum (per month)	old_earning_ben_max	Maximum amount of benefit per month
	Minimum contribution	old_earning_ben_min_cont	Minimum contribution used to calculate benefit
	Maximum contribution	old_earning_ben_max_cont	Maximum contribution used to calculate benefit
	Guarantee pension/means-income tested	old_earning_ben_guarenteed	Guarenteed means tested pension
	Survivors pension (as percentage of spouse's pension)	old_earning_ben_survavior	Survivors pension (as percentage of spouse's pension)
Raplacement rate variables	RR_gdp (guarenteed pension)	old_earning_gdp_rr_guaranteed	Replacement rate of guarenteed old age benefit comparatively to Gross Domestic Product/month
	RR_gdp (income related)	old_earning_gdp_rr_income	Replacement rate of income related old age benefit comparatively to Gross Domestic Product/month
	RR_average income	old_earning_ai_rr	Replacement rate of benefit comparatively to average income/month
	RR_gni pc (guarenteed pension)	old_earning_gni_rr_guarenteed	Replacement rate of guarenteed old age benefit comparatively to Gross National Income/month
	RR_gni pc (income related)	old_earning_gni_rr_income	Replacement rate of income related old age benefit comparatively to Gross National Income/month
MATERNITY/PATERNITY (parental)			

Coverage	Government employees (public employees)	parental_cov_publ_employ	Government employees (public employees) covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Employees	parental_cov_employ	Employees covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Self-employed	parental_cov_self_employ	Self-employed covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Domestic	parental_cov_dom	Domestic workers covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Farmers self-employed	parental_cov_farmers	Self-employed farmers covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Farmers kooperative/agri worker	parental_cov_farmers_koop	Farmers kooperative covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Universal (all)	parental_cov_uni	Universal coverage of maternity/paternity benefits: calculated as 0=no, 1=yes
	Coverage (index)	parental_cov_index	Coverage aggregation, 1-7
	cover_adj_index	parental_cov_adj_index	Share of labour market participation multiplied with group coverage (ie. whether

			public, private and self-employed are covered by insurance)
	lab_tot_partic	parental_lab_partic	Share of population participating in the labour market, 0-1
Funding	Insured (percentage of earnings)	parental_fund_insured_proc	Percentage of earnings paid by the insured
	Employer (percentage of payroll)	parental_fund_employer_proc	Percentage of earnings paid by the employer
	Government	parental_fund_gov_proc	Percentage paid by the government
	Insured (part of total)	parental_fund_insured_prop	Proportion of funding paid by the insured
	Employer (part of total)	parental_fund_employer_prop	Proportion of funding paid by the employer
	Government (part of total)	parental_fund_gov_prop	Proportion of funding paid by the government
Qualifying conditions	Work record (weeks)	parental_cond_work-record	Estimated work record for benefits eligibility (weeks)
	Reference period (weeks)	parental_cond_ref-period	Estimated time period of employment for benefits eligibility (weeks)
Benefits	Benefits (percentage of previous salary or per month if flat-rate)	parental_ben_perc	Benefits as percentage of previous salary paid initially or per month if flat-rate
	Benefits 26 weeks	parental_ben_26w	Benefit level after 26 weeks
	Minimum (month)	parental_ben_min	Minimum amount of benefit per month
	Maximum (month)	parental_ben_max	Maximum amount of

			benefit per month
	Minimum contribution	parental_ben_min_cont	Minimum contribution used to calculate benefits
	Maximum contribution	parental_ben_max_cont	Maximum contribution used to calculate benefits
	Duration	parental_ben_dur	Duration of benefit
	Employer liability/labor code	parental_ben_liability	If workers are protected through employer liability/labor codes, 0=no, 1=yes
	Medical benefits	parental_ben_medical	Medical benefits (pecentage paid by employer/government)
Replacement rate variables	RR_gdp	parental_gdp_rr	Replacement rate of benefit comparatively to Gross Domestic Product/month
	RR_average income	parental_ai_rr	Replacement rate of benefit comparatively to average income/month
	RR_gni pc	parental_gni_rr	Replacement rate of benefit comparatively to Gross National Income/month
<u>FAMILY ALLOWANCE</u>			
Coverage	Government employees (public employees)	fam_allow_cov_publ_emplo y	Government employees (public employees) covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Employees	fam_allow_cov_employ	Employees covered by maternity/paternity benefits: calculated as 0=no, 1=yes

	Self-employed	fam_allow_cov_self_employ	Self-employed covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Domestic	fam_allow_cov_dom	Domestic workers covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Farmers self-employed	fam_allow_cov_farmers	Self-employed farmers covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Farmers kooperative/agri worker	fam_allow_cov_farmers_koop	Farmers kooperative covered by maternity/paternity benefits: calculated as 0=no, 1=yes
	Universal (all)	fam_allow_cov_uni	Universal coverage of maternity/paternity benefits: calculated as 0=no, 1=yes
	Coverage (index)	fam_allow_cov_index	Coverage aggregation, 1-7
	cover_adj_index	fam_allow_cov_adj_index	Share of labour market participation multiplied with group coverage (ie. whether public, private and self-employed are covered by insurance)
	lab_tot_partic	fam_allow_lab_partic	Share of population participating in the labour market, 0-1
	Conditions	fam_allow_cov_cond	Conditions for family allowance coverage

Funding	Insured (percentage of earnings)	fam_allow_fund_insured_proc	Percentage of earnings paid by the insured
	Employer (percentage of payroll)	fam_allow_fund_employer_proc	Percentage of earnings paid by the employer
	Government	fam_allow_fund_gov_proc	Percentage paid by the government
	Deficits	fam_allow_fund_def	If government covers deficits, 1=yes, 0=no
	Insured (part of total)	fam_allow_fund_insured_prop	Proportion of funding paid by the insured
	Employer (part of total)	fam_allow_fund_employer_prop	Proportion of funding paid by the employer
	Government (part of total)	fam_allow_fund_gov_prop	Proportion of funding paid by the government
Qualifying conditions	Max age of children	fam_allow_cond_child_allow_age	Child allowance (maximum age of children)
	Max income	fam_allow_cond_max_income	Max income, means-testing, for benefit eligibility
	School	fam_allow_cond_school	If the child must attend school (1=yes, 0=no)
	Health	fam_allow_cond_health	If the child must fullfill any specific health standard (1=yes, 0=no)
	Work record (weeks)	fam_allow_cond_work-record	Estimated work record for benefits eligibility (weeks)
Benefits	Benefits (per child and month)	fam_allow_ben_child_allow	Child allowance/benefits (per child and month)
	Means/income-tested (child allowance)	fam_allow_ben_child_allow_means	If child allowance is means or income tested (1=yes, 0=no)

Replacement rate variables	RR_gdp	fam_allow_gdp_rr	Replacement rate of benefit comparatively to Gross Domestic Product/month
	RR_average income	fam_allow_ai_rr	Replacement rate of benefit comparatively to average income/month
	RR_gni pc	fam_allow_gni_rr	Replacement rate of benefit comparatively to Gross National Income/month
HEALTH CARE			
	Basic principles		
Coverage	Government employees (public employees)	Missoc_health_cov_public_employees	Government employees (public employees) covered by Health care insurance: calculated as 0=no, 1=yes
	Employees	Missoc_health_cov_employees	Employees covered by covered by Health care insurance: calculated as 0=no, 1=yes
	Self-employed	Missoc_health_cov_self_employed	Self-employed covered by covered by Health care insurance: calculated as 0=no, 1=yes
	Domestic	Missoc_health_cov_domestic	Domestic workers covered by covered by Health care insurance: calculated as 0=no, 1=yes
	Jobseekers	Missoc_health_cov_jobseekers	Jobseekers covered by basic covered by Health care insurance: calculated as 0=no, 1=yes
	Universal (all)	Missoc_health_cov_uni	Universial coverage of covered by Health care insurance: calculated as

			0=no, 1=yes
	Coverage (index)	Missoc_health_cov_index	Coverage aggregation, 1-6
	cover_adj_index	Missoc_health_cov_adj_index	Share of labour market participation multiplied with group coverage (ie. whether public, private and self-employed are covered by insurance)
	lab_tot_partic	Missoc_health_lab_partic	Share of population participating in the labour market, 0-1
	Compulsory	Missoc_health_cov_comp	If health insurance is compulsary, 1=yes, 0=no
	Voluntary	Missoc_health_cov_vol	If health insurance is voluntary, 1=yes, 0=no
Funding	Employees	Missoc_health_fund_employee	If employees contributes to the funding, 1=yes, 0=no
	Self-employed (percent of earnings)	Missoc_health_fund_self_employ	If the self-employed contributes to the funding, 1=yes, 0=no
	Employer (percentage of payroll)	Missoc_health_fund_employer	If the employer contributes to the funding, 1=yes, 0=no
	Government	Missoc_health_fund_gov	If the government contributes to the funding, 1=yes, 0=no
	Insured (part of total)	Missoc_health_fund_insured_prop	Proportion of funding paid by the insured
	Self-employed (part of total)	Missoc_health_fund_self_employ_prop	Proportion of funding paid by the self-employed
	Employer (part of total)	Missoc_health_fund_employer_prop	Proportion of funding paid by the employer

	Government (part of total)	Missoc_health_fund_gov_prop	Proportion of funding paid by the government
	Deficits	Missoc_health_fund_def	Responsibility for deficits in funding
Qualifying conditions	Qualifying period	Missoc_health_cond_period	Time before eligible to insurance
	Residents	Missoc_health_cond_res	Insured must be reside in the country, 1=yes/0=no
Benefits	Duration of benefits	Missoc_health_ben_dur	How long service is available for insured
	Payment of doctor	Missoc_health_ben_pay_doctor	Patient charge for doctor
	Patient charge min % (session)	Missoc_health_ben_charge_min_share	Minimum patient charge for treatment, per session (percentage)
	Patient charge min amount (session)	Missoc_health_ben_charge_min	Minimum patient charge for treatment, per session (amount)
	Patient charge max % (session)	Missoc_health_ben_charge_max_share	Maximum patient charge for treatment, per session (percentage)
	Patient charge max amount (session)	Missoc_health_ben_charge_max	Maximum patient charge for treatment, per session (amount)
	Max cost per year /reduction for high cost)	Missoc_health_ben_red	Maximum cost for a patient per year
	Hospitalisation: patient charge min % (day)	Missoc_health_ben_hosp_charge_min_share	Minimum patient charge for hospitalisation, per day (percentage)
	Hospitalisation: patient charge min amount (day)	Missoc_health_ben_hosp_charge_min	Minimum patient charge for hospitalisation, per day (amount)

	Hospitalisation: patient charge max % (day)	Missoc_health_ben_hosp_charge_max_share	Maximum patient charge for hospitalisation, per day (percentage)
	Hospitalisation: patient charge max amount (day)	Missoc_health_ben_hosp_charge_max	Maximum patient charge for hospitalisation, per day (amount)
GUARANTEED MINIMUM RESOURCES			
Qualifying conditions	Nationality	Missoc_min_cond_nationality	Nationality requirements for eligibility, 1=yes, 0=no
	Resident	Missoc_min_cond_resident	Obligation to reside in country, 1=yes, 0=no
	Permanent/long-term residence	Missoc_min_cond_residence	Permanent residence, or long-term residence for minimum 5 years, obligation for immigrants, 1=yes, 0=no
Benefits	Sasi (assistance single adult)	Samip_min_ben_single	Social assistance standard rates for a single adult person below retirement age and without children. Average monthly amounts. Excluding housing costs, special needs benefits and occasional payments.
	Salp (assistance lone parent two children)	Samip_min_ben_lone_par	Same as SAsi but for a lone parent type-case with two children. See documentation for details.
	Safa (assistance two parents two children)	Samip_min_ben_two_par	Same as SAsi but for a two-parent family with two children. See documentation for details

	SAsiy	Samip_min_ben_Sasiy	Same as SAsi but yearly amounts
	SAlpy	Samip_min_ben_Salpy	Same as SAlp but yearly amounts.
	SAfay	Samip_min_ben_Safay	Same as SAfa but yearly amounts.
	SAavey	Samip_min_ben_Saavey	The average of SAsiy, SAlpy, and SAfay.
	CSUPPlp	Samip_min_ben_CSUPPlp	Child supplement for the lone parent type-case. Average monthly amounts
	CSUPPfa	Samip_min_ben_CSUPPfa	Child supplement for the two parent type-case. Average monthly amounts.
	HSUPPsi	Samip_min_ben_HSUPPsi	Housing supplement for the single person without children. Average monthly amounts.
	HSUPPlp	Samip_min_ben_HSUPPlp	Housing supplement for the lone parent type-case. Average monthly amounts
	HSUPPfa	Samip_min_ben_HSUPPfa	Housing supplement for the two parent type-case. Average monthly amounts
	TCREDsi	Samip_min_ben_TCREDsi	Refundable tax credits for the single person without children. Average monthly amounts.
	TCREDlp	Samip_min_ben_TCREDlp	Refundable tax credits for the lone parent type-case. Average monthly amounts
	TCREDfa	Samip_min_ben_TCREDfa	Refundable tax credits for the two parent type-case.

			Average monthly amounts
	OTHsi	Samip_min_ben_OTHsi	Other benefits beside those above for the single person household without children. Average monthly amounts.
	OTHlp	Samip_min_ben_OTHlp	Other benefits beside those above for the lone parent type-case. Average monthly amounts.
	OTHfa	Samip_min_ben_OTHfa	Other benefits beside those above for the two-parent type-case. Average monthly amounts.
	CSUPPlpy	Samip_min_ben_CSUPPlpy	Same as CSUPPlp but yearly amounts.
	CSUPPfay	Samip_min_ben_	Same as CSUPPfa but yearly amounts
	HSUPPsiy	Samip_min_ben_HSUPPsiy	Same as HSUPPsi but yearly amounts.
	HSUPPlpy	Samip_min_ben_HSUPPlpy	Same as HSUPPlp but yearly amounts.
	HSUPPfay	Samip_min_ben_HSUPPfay	Same as HSUPPfa but yearly amounts.
	TCREDsiy	Samip_min_ben_TCREDsiy	Same as TCREDsi but yearly amounts.
	TCREDlpy	Samip_min_ben_TCREDlpy	Same as TCREDlp but yearly amounts.
	TCREDfay	Samip_min_ben_TCREDfay	Same as TCREDfa but yearly amounts.
	OTHsiy	Samip_min_ben_OTHsiy	Same as OTHsi but yearly amounts.

	OTHlpy	Samip_min_ben_OTHlpy	Same as OTHlp but yearly amounts.
	OTHfay	Samip_min_ben_OTHfay	Same as OTHfa but yearly amounts
	MIPsi	Samip_min_ben_MIPsi	Minimum income protection for the single person household without children. Average monthly amounts. The sum of SAsi, HSUPPsi, TCREDsi, and OTHsi.
	MIPlp	Samip_min_ben_MIPlp	Minimum income protection for the lone parent type-case. Average monthly amounts. The sum of SAlp, CSUPPlp, HSUPPlp, TCREDlp, and OTHlp.
	MIPfa	Samip_min_ben_MIPfa	Minimum income protection for the two-parent family type-case. Average monthly amounts. The sum of SAfa, CSUPPfa, HSUPPfa, TCREDfa, and OTHfa.
	MIPsiy	Samip_min_ben_MIPsiy	Same as MIPsi but yearly amounts.
	MIPlpy	Samip_min_ben_MIPlpy	Same as MIPlp but yearly amounts.
	MIPfay	Samip_min_ben_MIPfay	Same as MIPfa but yearly amounts.
	MIPavey	Samip_min_ben_MIPavey	The average of MIPsiy, MIPlpy, and MIPfay.
	FAlp	Samip_min_ben_Falp	Family Assistance for the lone parent type-case. Same as Minimum income

			protection but less housing supplements (MIPlp-HSUPPlp). Average monthly amounts.
	FAfa	Samip_min_ben_Fafa	Family Assistance for the twoparent family type-case. Same as Minimum income protection but less housing supplements (MIPlp-HSUPPlp). Average monthly amounts.
	FAlpy	Samip_min_ben_Falpy	Same as FAlp but yearly amounts
	FAfay	Samip_min_ben_Fafay	Same as FAfa but yearly amounts.
	FAavey	Samip_min_ben_Faavey	The average of FAlpy and FAfay.
General indicators (for RR calculation)			
	Gdp per capita per month		Gross National Product per capita/month
	Gni pc per month LCU		Gross National income per capita per month in local currency
	Average income		Average income for entire population/per capita income

REMINDER

ROLE OF EUROPEAN MOBILITY AND ITS IMPACTS IN NARRATIVES, DEBATES AND EU REFORMS

The REMINDER project is exploring the economic, social, institutional and policy factors that have shaped the impacts of free movement in the EU and public debates about it.

The project is coordinated from COMPAS and includes participation from 14 consortium partners in 9 countries across Europe

UNIVERSITY OF OXFORD

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