

Employment dynamics and social implications

INTRODUCTION ⁽⁹⁸⁾

Bringing about upward convergence in the living standards of Europeans requires, first and foremost, better opportunities for all in the labour market. The increases in inequality and poverty that occurred until recently in many EU Member States as a result of the crisis can be linked to the rise in unemployment and joblessness, but to some extent also to lower quality employment, as in-work poverty has been rising in most countries. Whereas the social impact of poor labour market opportunities was mitigated to varying degrees by social protection systems, sustainable improvements in living standards cannot be built on redistribution alone. Getting people into quality jobs is therefore key to achieving the EU's ambition of fostering upward convergence in living standards across all Member States ⁽⁹⁹⁾.

This chapter analyses the impact of employment dynamics and wages on poverty and income inequality as well as on living conditions. It considers the conditions that are necessary for jobs and wages to be effective pathways out of, or bulwarks against, poverty. The chapter analyses what chances low-wage workers have of improving their wage level and what factors influence upward wage mobility. The empirical analyses included in this chapter were based on EU-

⁽⁹⁸⁾ This chapter was written by Alessia Fulvimari, Eric Meyermans and Maria Vaalavuo.

⁽⁹⁹⁾ This is true for all age groups, as children's living standards depend on those of their working-age parents, and pension rights (and hence poverty risks in old age) depend on employment over the life cycle. The longer-term effects of employment through the accrual of pension entitlements and other benefits of employment (e.g. better health care coverage) are not considered here.

SILC 2014 cross-sectional data and EU-SILC 2013 panel data (see **Box 2.1** for details).

First it describes trends in wages, work intensity and in-work poverty since the onset of the economic crisis. It then uses regression analysis data for the EU as a whole to investigate the conditions in which work can lift people out of poverty, and the characteristics affecting individuals' chances of escaping poverty. The specific role of wages is assessed by focusing on developments at the bottom of the hourly wage distribution. Finally, the chapter reviews the likelihood of upward mobility, as people find employment and leave the low-wage segment of the labour market.

The latest EU-SILC data were released in October 2016, but micro-data were not yet available for all Member States by the time this chapter was finalised.

1. WAGES AND WORK INTENSITY SINCE THE ONSET OF THE CRISIS

1.1. How wages affect incomes and outcomes

Wages are key to understanding developments in household incomes and social outcomes. Perhaps the single most important driver of rising income inequality is growing disparity in earnings, which represents the largest share of household income among the working age population (OECD, 2011; Blau and Kahn, 2009) ⁽¹⁰⁰⁾. **Chart 2.1** illustrates the average composition of total gross household incomes (before

⁽¹⁰⁰⁾ For a literature review on drivers of earnings inequality, including technological advances, education, immigration, trade integration, unionisation and product market deregulation, see European Commission (2012, 79-80).

Box 2.1: EU-SILC cross-sectional and panel data

EU-SILC (European Union Statistics on Income and Living Conditions) is an EU-wide survey which collects detailed data on individuals' and households' labour market status and income components in addition to various socio-demographic characteristics. In this Chapter we have used both the cross-sectional data and the panel data in which individuals are interviewed in four consecutive years.

The empirical questions posed in this Chapter are answered by descriptive and econometric analysis based on EU-SILC time-series data from 2007 to 2014 at the country level, and pooled panel data 2011-2013 (including years from 2008-2013) at the individual level. The latest revisions, which became available in April 2016 have been used.

As EU-SILC data reflect incomes in the previous year (except for the UK and Ireland where incomes refer to the last 12 months before the interview period), the income reference years have been used in the chapter, i.e. in EU-SILC 2014, income components refer to 2013.

As the sample sizes in the panel data tend to be small when we focus on transitions of sub-groups of the population, we have pooled together the datasets of 2011, 2012 and 2013. This considerably increases the sample sizes and makes analysis possible at the country level.

In our analyses of poverty transitions and wage mobility, we mainly focus on year-on-year transitions between the last two waves of the data. This means that we are looking at averages of year-on-year transitions from 2009 to 2010 (EU-SILC 2011), 2010 to 2011 (EU-SILC 2012) and from 2011 to 2012 (EU-SILC 2013). The income years, not the data years, are used in the text and charts.

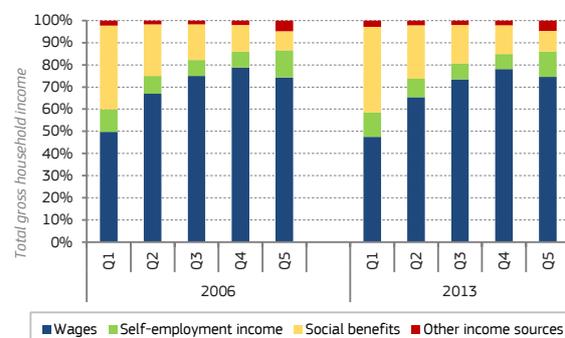
Analytical weights calculated by Eurostat are used. It should be noted that income components in EU-SILC have breaks in time series in 2008 for Spain, France, Cyprus and Austria; in 2010 for Croatia, in 2011 for Denmark; and in 2012 for the UK.

No panel data is available for Germany.

deducting taxes) in Europe by income quintiles in 2006 and 2013.

Wages represent the biggest proportion of household income in all income groups among the working age population, even though this has declined slightly in all groups except for the top 20% of the income distribution since 2006. Going up through the income quintiles, the proportion of wages within total income increases while the proportion of social transfers decreases, as is to be expected.

Chart 2.1: Income composition by income groups, working age population (20-64), EU average in 2006 and 2013.



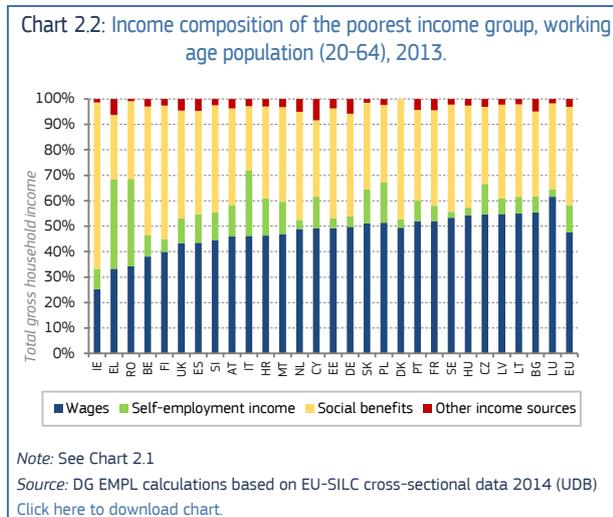
Note: Income groups (Q1-Q5) refer to income quintiles, e.g. Q1 refers to the individuals in the bottom 20% of the income distribution. Only the working age population (20-64 years old) is considered, but the income of everyone in the household is taken into account (including old age pensions received by retired members of the household). Income quintiles are based on equivalised disposable income of working age population. "Other income" includes: (1) interests, dividends and profit from capital investments; (2) private pension plans; (3) income from rental of a property or land; (4) intra-household transfers; (5) alimony; and (6) income received by people less than 16 years old. "Gross incomes" means no taxes or social security contributions are taken into account.

Source: DG EMPL calculations based on EU-SILC cross-sectional data 2007 and 2014 (UDB) (i.e. latest available data at time of drafting. 2013 is the income reference year).

[Click here to download chart.](#)

In the lowest quintile of the income distribution, representing the poorest 20%, there are differences between countries in terms of the share of wages in total income (Chart 2.2). In Ireland, Greece, Romania and Belgium, wages are less than 40% of total gross household income. In Greece and Romania this is mainly due to the high proportion of income from self-employment. In many Member States, however, wages represent more than 50% of all household income in

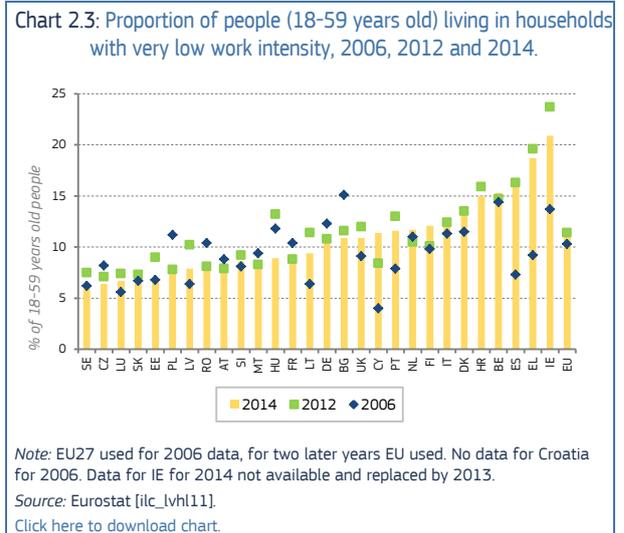
the bottom income quintile. What happens to wages can have a significant impact on the wellbeing of households across the income distribution because they are the main source of income for most households of working age people, even in the bottom quintile.



1.2. Increasing numbers of people are living in jobless households

The number of people aged 18-59 living in households with very low work intensity⁽¹⁰¹⁾ increased from 10.3% in 2006 to 11.4% in 2012, but it then decreased to 11% in 2014 (**Chart 2.3**). Differences between countries are significant: Bulgaria and Poland have experienced a reduction of more than 3 percentage points in joblessness between 2006 and 2014, while the countries hardest hit by the crisis have seen their numbers of jobless people rise significantly, most notably in Greece with an increase from 9.2% in 2006 to 18.7% in 2014 and Spain with an increase from 7.3% in 2006 to 16.5% in 2014.

⁽¹⁰¹⁾ Hereafter, we refer to these households as 'jobless households'. Very low work intensity (VLWI) or joblessness refers to household work intensity below 0.2, meaning that, accounting for months worked, the working age individuals in the household spend less than 20% of their time in employment or self-employment (students aged 18-24 are excluded from the calculation). Elsewhere in the chapter we calculate individual work intensity taking into account hours worked as well.



1.3. Part-time employment has risen – notably involuntary part-time work

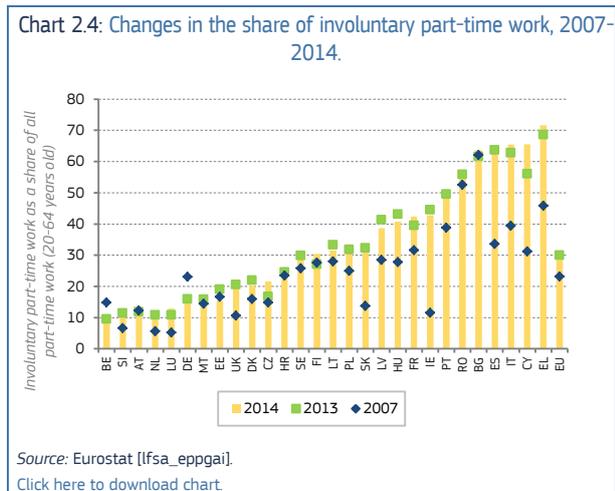
Working hours in the EU have declined since the crisis hit in 2008, though have remained broadly stable since 2013⁽¹⁰²⁾. In absolute terms, part-time employment has grown and continues to grow, while full-time employment declined until 2013. The increasing number of Europeans working part-time may be a positive development if it means that people can choose more freely the balance between work and other pursuits. But part-time work also has a downside if it is involuntary, or if it is the only available option because of the difficulty of reconciling a 'standard' job with one's private life and family responsibilities.

The proportion of part-time workers in the EU increased in all but two countries (Croatia and Poland) during recent years, on average from 16.8% to 19.0%, a slightly higher increase than the US and OECD averages. The increase has been especially strong among men: the share of men working part-time has almost tripled in Greece, Cyprus and Slovakia, and more than doubled in Bulgaria, Czech Republic, Ireland, Spain and Malta. The changes among women have been more modest. Nevertheless, the absolute number of women working part-time is still higher than for men. There also seems to be a clear East-West divide: in Central and Eastern Europe, part-time work is still a marginal phenomenon.

As can be seen from **Chart 2.4**, involuntary part-time work increased by a third following the crisis. On average 23.1% of part-time workers reported working part-time involuntarily in 2007, rising to 30.4% by 2013, and remaining stable since. In a number of Member States the level decreased in 2014 (Slovenia, Germany, Estonia, the UK, Denmark, Lithuania, Latvia, Hungary and Ireland), but in others it continued to increase. More men than women report working part-time involuntarily (42.7% compared with 26.8%). The proportion of involuntary part-time work is especially high in Southern countries, where it also increased

⁽¹⁰²⁾ See 'Main Employment and Social Developments' Chapter.

significantly (in Greece from 45.8% to 71.7%, Cyprus from 31.2% to 65.5%, Italy from 39.4% to 65.4% and Spain from 33.6% to 64.4%), while it is around 10% in Belgium, Slovenia, Austria and the Netherlands.



2. IN-WORK POVERTY: INTERACTIONS BETWEEN WAGES, WORK AND POVERTY

2.1. Work protects against poverty but in-work poverty has increased

Several elements can influence a person's poverty risk.

- His/her *individual market income* is affected by annual *work intensity* (both months in employment over the year and weekly hours worked) and the *hourly wage* level. In turn, this hourly wage level is to a large extent determined by the person's productivity per hour worked which is closely related to his/her skills, expertise and accumulated knowledge (from education and experience).
- *Social transfers and taxes* redistribute income between individuals and households and can have a strong impact on poverty and income inequality.
- Income is measured at the household level assuming that *incomes of all household members are pooled*; thus a person without earnings may not be regarded as poor if he or she lives in a household with others who do have an income.
- The *total household income is divided by the number of household members*, but with weights below one for any additional adults and children, to take account of the fact that living costs are lower when several people share resources in a common household.
- The household income adjusted for household size and composition is compared with the median income of the country in which the household is located. If it is below 60% of the median income, then the members of the household are considered as being 'at risk of poverty'. As the median income in a country can fluctuate, people may cross the at-

risk-of-poverty threshold of 60% of the median simply as a result of fluctuations in the median income.

2015 EU-SILC data (released by Eurostat in October 2016) ⁽¹⁰³⁾, referring to 2014 incomes, show that in 2014, the at-risk-of-poverty (AROP) rate for the working age population ⁽¹⁰⁴⁾ stood at 17.2% in the EU, up from 14.9% in 2006 and slightly higher than 16.4% in 2012 ⁽¹⁰⁵⁾. While this higher level is partly due to the increases in unemployment and joblessness associated with a higher risk of poverty (Chart 2.5), levels of in-work poverty ⁽¹⁰⁶⁾ have also increased. This may be partly due to the rise in part-time work (Chart 2.6) ⁽¹⁰⁷⁾.

There is strong evidence that unemployment poses a serious poverty risk in Europe. In the EU, nearly half (46.3%) of the unemployed (i.e. people unemployed for seven or more months during the year) were at risk of poverty ⁽¹⁰⁸⁾, while this was the case for only 8.2% of employed people. There are, however, differences between people active in the labour market: the self-employed have a higher risk of poverty than salaried workers, and part-time workers have a higher risk of poverty than full-time workers.

In Chart 2.5 countries are ordered according to the AROP of the unemployed. In Germany and Lithuania, the AROP of the unemployed is above 60%. The unemployed are best protected against the risk of poverty in Denmark, France, Cyprus, Ireland and the Netherlands, in all of which the AROP of the unemployed is below 40%. However, even in these countries the risk is considerably higher than for full-time or even part-time workers.

Everywhere in the EU, full-time workers are relatively well protected against poverty, with the highest AROP recorded in Estonia (9.2%), Luxembourg (8.9%) and Bulgaria (7.8%). On the other hand, part-time workers face a significantly higher risk of poverty, notably in Bulgaria (34.1%), Portugal (29.6%) and Romania (29.3%) where part-time work is, however, relatively uncommon. Full-time self-employed people have an

⁽¹⁰³⁾ Indicators based on EU-SILC 2015 data are available in the Eurostat online database. Nevertheless, EU-SILC 2015 micro-data were only available for a limited number of Member States at the time of drafting this chapter.

⁽¹⁰⁴⁾ This figure refers to people aged 18-64.

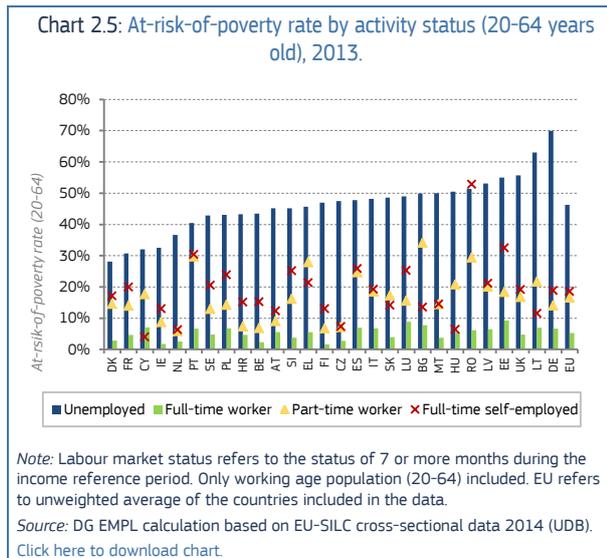
⁽¹⁰⁵⁾ For a more complete discussion on who are the poor in the EU, see Chapter 1.

⁽¹⁰⁶⁾ In this chapter, in-work poverty refers to the standard EU definition of in-work poverty (Ponthieux, 2010). People considered as "in work" are those who have been working for most of the year (i.e. 7 or more months); poverty refers to "at-risk-of-poverty" status.

⁽¹⁰⁷⁾ For an in-depth analysis of in-work poverty in Europe (including discussion on methodological and conceptual issues as well as country comparisons and policy evaluation), see Anderß and Lohmann (2008), Crettaz (2011) and Fraser et al. (2011).

⁽¹⁰⁸⁾ Data do not allow differentiation between people covered by unemployment insurance, and those who are covered by unemployment assistance.

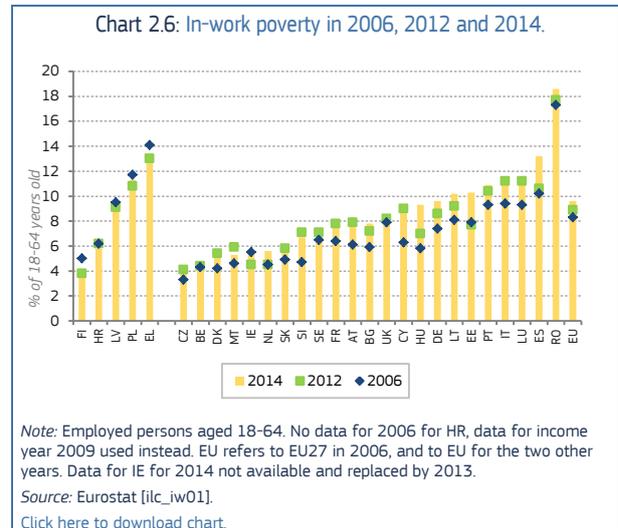
even higher risk of poverty: more than 3.5 times higher than that of full-time workers.



Focussing on those who have been in work for at least seven months in the income reference year ⁽¹⁰⁹⁾, **Chart 2.6** indicates growing in-work poverty in the EU; this is confirmed by academic research (Anderß and Lohmann, 2008; Fraser et al., 2011; Crettaz, 2011; Crettaz, 2013). Only in five countries - Finland, Croatia, Latvia, Poland and Greece - has in-work poverty decreased since 2006, while in Ireland the rate is at the same level in 2014 as in 2006. In other EU countries, in-work poverty is now higher: the increase has been especially significant in Hungary (3.5 percentage points, or pps), Spain (3 pps) and Cyprus (2.9 pps).

In 2014, on average, 9.6% of employed people in the EU were at risk of poverty compared with 8.3% in 2006. This means that almost one in ten people is unable to move above the poverty threshold despite working. The rate is especially high in Romania, Spain, Luxembourg and Italy. It is important to analyse the circumstances in which work is not enough to secure adequate income, and, in particular, whether this is mainly connected to insufficient working time (see also **Chart 2.5**), low hourly wages or family circumstances.

⁽¹⁰⁹⁾ Eurostat uses this "7 months rule" to calculate in-work poverty rates (having worked 7 or more months during the income reference period is counted as being "worker"). This is also applied in this chapter when we talk about working poor or in-work poverty. However, it should be noted that working status refers to an individual characteristic and poverty to a household characteristic.

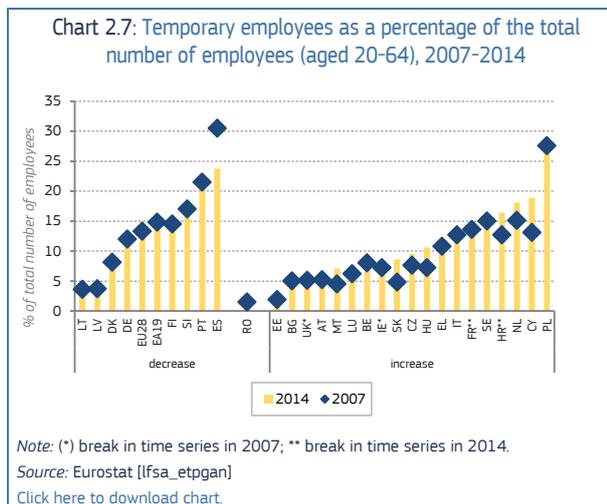


2.2. The rise in non-standard employment and links to low wages

Part-time and temporary jobs tend to offer smaller hourly pay than full-time jobs (e.g. Özdemir et al., 2015; Horemans and Marx, 2013). This raises questions about the possible consequences of the rise in non-standard employment for poverty and inequality and the factors that can help to prevent increases in in-work poverty.

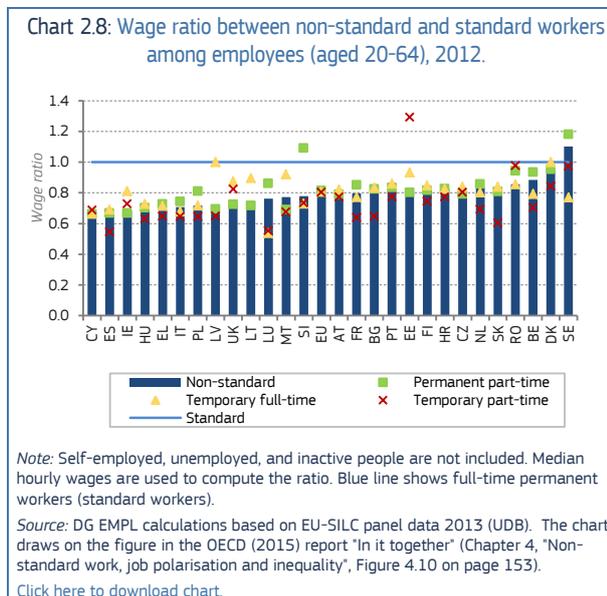
According to a recent study by Eurofound (2016), employers seem to have an increasing need to use temporary contracts when recruiting new employees. As **Chart 2.7** shows, the proportion of temporary workers among all workers increased in most Member States between 2007 and 2014. Nevertheless, it decreased slightly at the EU level, mainly due to the drop in the share of temporary employees in some big Member States, such as Spain, where temporary employment had grown strongly before the crisis. The decrease in the use of temporary work in Spain is likely to be explained by the fact that people already on temporary contracts lost their jobs at the beginning of the crisis (before the reforms). Temporary workers were the hardest hit by the crisis and the large increase in unemployment was the result of the collapse in temporary jobs ⁽¹¹⁰⁾.

⁽¹¹⁰⁾ See section 2.1.4 of Chapter 'Main Employment and Social Developments' for more details on developments in temporary work.



The increases in part-time and temporary work described above can influence income and earnings inequality in many ways. For this reason, their possible connection with lower wages and changes in the wage distribution need to be studied carefully.

The existing empirical evidence shows that non-standard workers (i.e. temporary workers and part-time workers) are over-represented at the bottom of the hourly wage distribution (OECD, 2015). **Chart 2.8** shows the ratio between the median hourly wage⁽¹¹¹⁾ for three types of employees and the median hourly wage for standard workers (i.e. permanent full-time employees).



Across most countries, both temporary and permanent part-time workers have a lower median hourly wage compared with permanent full-time employees. In other words, non-standard workers face a wage

⁽¹¹¹⁾ The wage information in EU-SILC is available at annual level. Hourly wages are calculated as annual wages divided by annual hours worked. Annual gross wages are available in the survey (variable PY010G), while annual hours worked are derived as total weeks worked per year multiplied by total hours worked per week. The former is given by the monthly labour status (PL211A-PL211L). The variable for the weekly hours worked is PLO6O.

penalty in comparison with standard workers. This compounds the income-reducing effects of shorter working time (part-time workers) and more frequent employment interruptions.

2.3. The multiple causes of in-work poverty

The risk of poverty is determined by labour market status, market income, household characteristics and receipt of social transfers.

When considering solutions to in-work poverty, attention easily turns to inadequate wage levels which often reflect low productivity per hour worked. However, while low-wage work can be associated with a number of disadvantages, such as lower job security, it is not clear whether it is the main determinant of in-work poverty. It is important to understand the situations in which low-wage earners are exposed to a risk of poverty and when this risk is linked to low wages per se. Beyond the potential link to poverty, low hourly pay may be particularly problematic when it is persistent and the chances of moving up the wage ladder are low.

Research provides mixed evidence on the connection between low wages and poverty (Crettaz, 2011). This is partly due to the fact that, while a low wage is an individual characteristic, poverty is based on a measurement of household disposable income that also takes into account taxes and benefits, household size and composition and income of other household members.

2.4. Low-wage earners in the EU

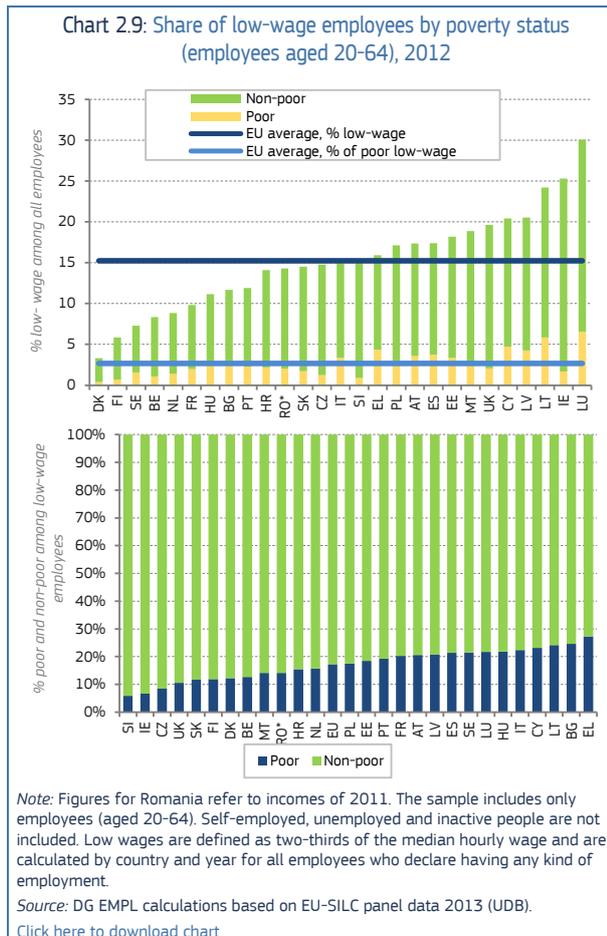
The proportion of low-wage employees – here defined as those with an hourly wage below two-thirds of the median wage⁽¹¹²⁾ – among all employees varies considerably across Member States: from below 10% in the Nordic countries, the Netherlands, Belgium and France, to close to 25% in Lithuania and Ireland and about 30% in Luxembourg.

The incidence of low pay is much higher among women than men, particularly among young people under the age of 30 (see **Table A.2.1** in **Annex** to this chapter). Women's lower hourly wages may, to some extent, be the result of gender segregation in sectors, since women are entering comparatively lower-paid sectors than men (European Commission, 2016f). In addition, women have more career breaks, more spells of inactivity, fewer working hours, and gender discrimination in their remuneration (European Commission 2013, Chapter 3). This is reflected in women's lower wages compared with men.

⁽¹¹²⁾ Low wages can be defined in many ways. The definition used in this chapter (low-wage earners are those with a wage below two-thirds of the country median hourly wage) is relative to the median wage in the country. The same definition is used in a Eurostat working paper (Ponthieux, 2010: 19). A relative definition of low-wage earners could for example include all employees in the bottom two (or three) deciles in the group of low-wage earners (see Lucifora and Salverda 2009 for a review of the topic).

People with a low level of education are more likely to earn low wages than mid- and highly-educated workers. Moreover, so-called non-standard workers – employees on temporary contracts and part-time arrangements – are more likely than permanent and full-time employees to be low-wage earners (Eurofound (2014); also **Chart 2.8**)⁽¹¹³⁾.

However, the share of low-wage earners among employees does not explain rates of in-work poverty across Europe, because in most cases low-wage earners are not, in fact, poor (see lower panel of **Chart 2.9**).

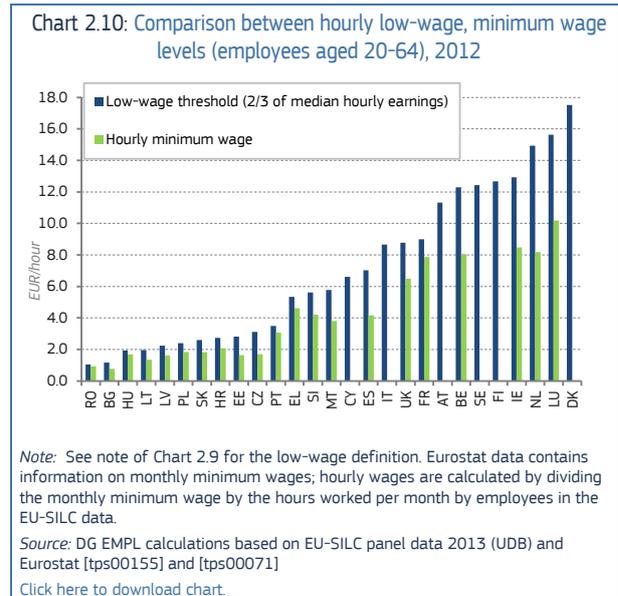


At the EU level, only around one-sixth of workers who earn an hourly wage below two-thirds of the median wage are also at risk of poverty. Differences across Member States are wide. In most Southern European Member States (Greece, Bulgaria, Cyprus, Italy and Spain) and also in Lithuania, Hungary, Luxembourg, Sweden, Latvia, Austria and France, more than one-fifth of low-wage employees are poor, while less than

⁽¹¹³⁾ The reasons why workers are low-paid are not discussed in this chapter. However, it may be useful to mention that employees may receive low pay because of labour supply or labour demand constraints. From the labour supply perspective, employees may be low-paid because either they are not well qualified enough for the labour market or they are discriminated against (for example, because of their gender, family or immigrant background or unemployment spells in their career). From the labour demand perspective, individuals can be low-paid because of shifts in the demand for their skills, lower demand in times of economic downturn and distortions in the design of taxes and benefits.

one-tenth of low-wage employees are poor in Slovenia, Ireland and the Czech Republic.

Hourly low wages varied between EUR 1.1 in Romania to around EUR 17.5 in Denmark in 2012 (based on EU-SILC panel data 2013). The low-wage threshold as defined here is generally higher than the minimum wage level (**Chart 2.10**). However, while in some countries the low-wage threshold is very close to the minimum wage floor, in others the gap between them is larger. For example, in the Netherlands the hourly minimum wage in 2012 was around EUR 8.2, while the low-wage threshold was around EUR 14.9 per hour.

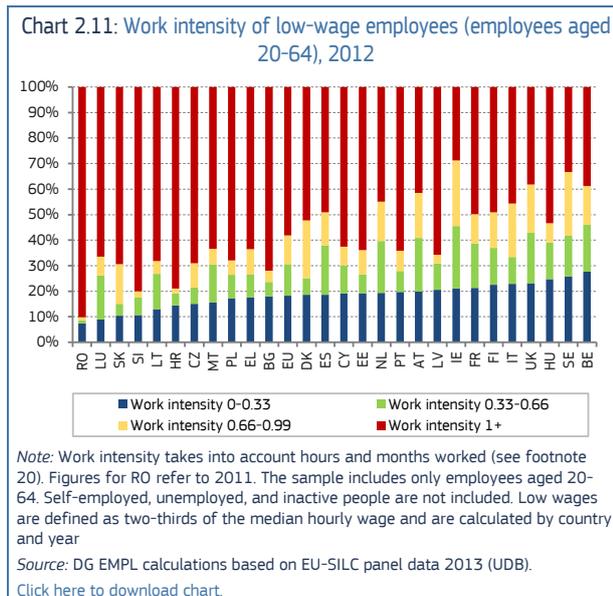


2.5. Low work intensity is a cause of in-work poverty

The link between contractual type and the risk of poverty is not clear-cut, in spite of the observed wage penalty. This is because an individual with a non-standard contract may work enough hours to compensate for the lower hourly wage, or he or she may not be the principal breadwinner in the household. Nevertheless, data suggests that temporary workers who work for only part of the year have a significantly higher poverty risk. The poverty risk seems to be more connected to the work intensity of the individual than to the contract type per se (see also **Chart 2.5**).

When low work intensity is combined with a low wage level, the risk of poverty inevitably becomes greater. At EU level, 18.2% of low-wage employees also experience individual low work intensity (measured in months and hours worked during the year), and 30.6% have low or medium-low work intensity (**Chart 2.11**). The combination of low hourly pay and low work intensity affects more than 20% of low-wage employees in Belgium, Sweden, Hungary, the UK, Italy, Finland, France, Ireland and Latvia, while in Romania

and Luxembourg less than 10% of low-wage employees also have low work intensity (¹¹⁴).

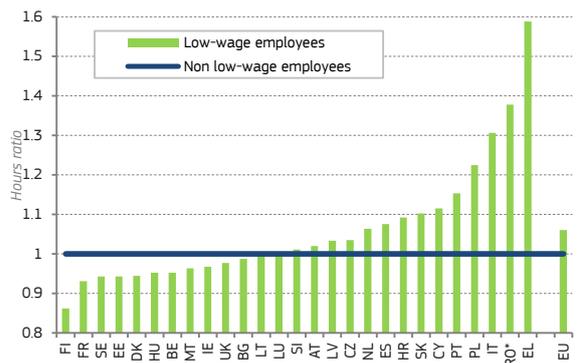


As **Chart 2.12** illustrates, many workers with lower hourly wages appear to compensate for their low wage with longer working time. In the EU as a whole, low-wage employees work on average more hours than employees with higher wages (self-reported hours worked during a usual week at the time of interview). In particular in Greece, Romania and Italy low-wage employees work considerably longer than those with higher hourly pay. However, in eleven countries (i.e. Finland, France, Sweden, Estonia, Denmark, Hungary, Belgium, Malta, Ireland, UK and Bulgaria) low-wage earners work less than non-low-wage earners (¹¹⁵).

⁽¹¹⁴⁾ Here low work intensity is defined as having work intensity below 0.33 at the individual level. This means that a person works less than a third of full-year full-time work, for example less than 4 months in full-time work or less than 8 months in part-time work with number of working hours less than half of the average in the country.

⁽¹¹⁵⁾ This seems inconsistent with OECD's finding (2011, 169) of a growing divide in many OECD countries between higher-wage and lower-wage earners, annual hours having declined among the latter. The explanation may be the different time frame, weekly versus annual hours.

Chart 2.12: Ratio of self-reported hours worked between low-wage and non-low-wage employees (non-low-wage=1), 2012



Note: Figures for RO refer to 2011. The sample includes only employees aged 20-64. Self-employed, unemployed, and inactive people are not included. Low-wages are defined as two-thirds of the median hourly wage and are calculated by country and year. Mean hours worked are used to compute the ratio.

Source: DG EMPL calculations based on EU-SILC panel data 2013 (UDB)

[Click here to download chart.](#)

Differences in work intensity among Member States may depend on household composition. In many cases low-wage earners may be the second earners of the household, and also have caring responsibilities and work part-time. A low wage becomes especially significant when the individual is a single earner and there is low work intensity at household level (Marx and Nolan, 2012). Individual and household factors may play a different role in different Member States.

The fact that a low wage does not lead to poverty in 5 out of 6 cases may be because the wage earners are not the main contributors to household income (e.g. they are second earners) or they compensate for their low hourly wage with a higher number of hours worked. It is also possible that their household needs are low (e.g. there are no dependent children or non-working adults in the household) (¹¹⁶) or their wages are supplemented by social transfers or tax credits.

The poverty risk linked to insufficient wages is amplified if people with one or more disadvantages – namely low work intensity and low wages – live together. However, there is little evidence that low wages are concentrated in certain households (Matsaganis, Medgyesi et al., 2015). Instead, the majority of low-wage earners are not the principal earners of the household. But cultural norms and patterns linked to female employment and low-wage jobs are important for understanding country and regional differences. For example, in the Western part of Germany 71% of low-wage earners lived with another wage-earner and had a below-average in-work poverty risk, while in the Eastern part of Germany low-wage jobs are often the sole source of household income and in-work poverty connected to low pay is higher (Gießelmann and Lohmann, 2008).

⁽¹¹⁶⁾ Needs are of course taken into account only in a limited way in our analysis of monetary poverty. They are only reflected in the equivalence scale that considers the size and composition of the household, but not for example housing costs or health needs.

2.6. Factors connected to being working poor

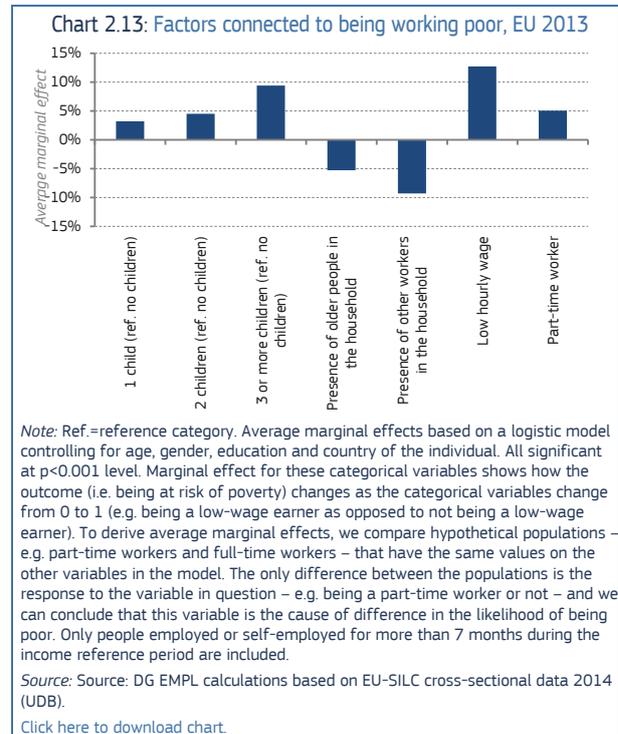
Chart 2.13 presents results from a regression model analysing the factors linked to being in work and also poor. It shows (unsurprisingly) that a low wage level increases the risk of being working poor, while having more than three children is an almost equally high risk. Being a part-time worker also increases the risk of in-work poverty.

On the other hand, the presence in the same household of other workers (higher household work intensity) and older people (supporting household incomes through old age benefits) is connected to a lower likelihood of being working poor. Being a single earner is associated with a higher poverty risk, given that the average living standard nowadays is normally determined by the living standard of double-earner households (Marx and Verbist, 2008). This was also the conclusion of a study on the poverty impact of mothers' employment (European Commission, 2016b).

This analysis highlights the importance of low wages in explaining in-work poverty. It indicates that even if the problems of the working poor cannot simply be reduced to low-wage employment, the quality of jobs and low wages are the most important determinants of in-work poverty (Goerne, 2011). But as many other researchers have pointed out, low wages are seldom the main cause (Crettaz and Bonoli, 2011). It would be simplistic to focus on wages only. Supporting female labour force participation and dual earners - by providing access to childcare, for example ⁽¹¹⁷⁾ - is also important, as is providing adequate family benefits more generally.

There are, of course, variations between countries in the relative importance of these factors, as countries vary in terms of low-wage prevalence or proportions of dual earners. For example, the high overall level of female employment in the UK could mean that low wages do not automatically translate into a risk of poverty. Also, the cost of children (affected by family policies) varies across countries and puts families with children at different levels of risk of poverty and in-work poverty across Europe: in Sweden the household context plays a limited role in in-work poverty, while in Spain and Poland workers in households with many dependents are at particularly high risk of in-work poverty (Goerne, 2011).

⁽¹¹⁷⁾ In turn, high quality early childhood education and care can lay the foundation for children's successful lifelong learning and employability later in life, which are crucial in tackling the problem of income inequality. See, for example, European Commission (2016c).



These results show how more support for families could help to fight in-work poverty. In addition to cash transfers that supplement family incomes directly, subsidised childcare services enable parents to work more hours and thus increase their take-home pay (for an analysis of the impact of childcare on poverty, see European Commission, 2016b). In-work benefits also have potential to reduce the poverty risk among low-wage workers.

Micro-simulations for four EU countries suggest that dedicating 1% of GDP to in-work benefits would reduce in-work poverty by 1.19 percentage points (pps) in Belgium, 1.13 pps in Italy and 2.59 pps in Sweden, while the impact would be more limited in Poland (at most a poverty reduction of 0.83 pps) (Vandelannoote and Verbist, 2016) ⁽¹¹⁸⁾. Another important factor is whether those who are entitled to various benefits actually get them ⁽¹¹⁹⁾.

Raising minimum wages can be an effective means of reducing in-work poverty, but studies have shown that the effect can be relatively limited because minimum wages benefit many more people than just members of poor households (Marchal and Marx, 2015). Micro-simulation research by the EU Social Situation Monitor

⁽¹¹⁸⁾ The exact impact however depends greatly on the design of the benefit, whether it is individual- or household-based, whether there are tapering in and out phases, whether there exists a threshold for eligibility based on hourly wage or total income, etc. In their results, the biggest impact was achieved when the design was either an individual- or household-based lump sum with an income threshold (also either at individual or household level). When labour supply impact is also taken into account, the results change as well. In this case, poverty impact is often smaller, as the median incomes will in general go up: in this case it might be more interesting to see the impact on poverty measured with a fixed poverty threshold that is not impacted by the rise in median income.

⁽¹¹⁹⁾ On the non-take-up of social benefits, see Eurofound (2015).

Box 2.2: Definitions used for poverty dynamics

In the analysis on poverty dynamics and labour market status, the focus is on the unemployed and inactive poor in time t-1 (referring to data of 2009, 2010 and 2011) and at what happens to them the following year, in t (referring to data of 2010, 2011 and 2012).

Unemployment, inactivity, and employment all refer to self-declared *monthly economic status* during the income reference period. As in the measurement of in-work poverty, status refers to the status of at least 7 months. Using information from several waves of the data provides corresponding information on both incomes and labour market status. Employment, or getting a job, includes in this section both salaried work and self-employment. Thus, hourly wage also includes both wages and income from self-employment. Negative income values are coded as 0.

indicates that the poverty-reducing effect of raising the minimum wage (taking into account interactions with social assistance and other tax-and-benefit policies) is small but not trivial: increasing the minimum wage to 50% of the average wage would lead to a fall of at least 1 percentage point in the overall at-risk-of-poverty rate in 13 out of 28 EU Member States, as well as helping to tackle questions of earnings inequality, work incentives and fairness⁽¹²⁰⁾ (Matsaganis, Medgyesi et al., 2015, European Commission 2016d and 2016e).

Combining higher minimum wages with other redistributive policies may prove more effective; but if the effect is offset by a fall in the means-tested benefits they receive, the working poor are likely to see no increase in their disposable income (as suggested by micro-simulation for Germany by Muller and Steiner, 2008). Moreover, if the level of the minimum wage is too much disconnected from productivity levels it may push low-wage earners into unemployment thereby deteriorating their situation as the unemployed face a much stronger risk of poverty.

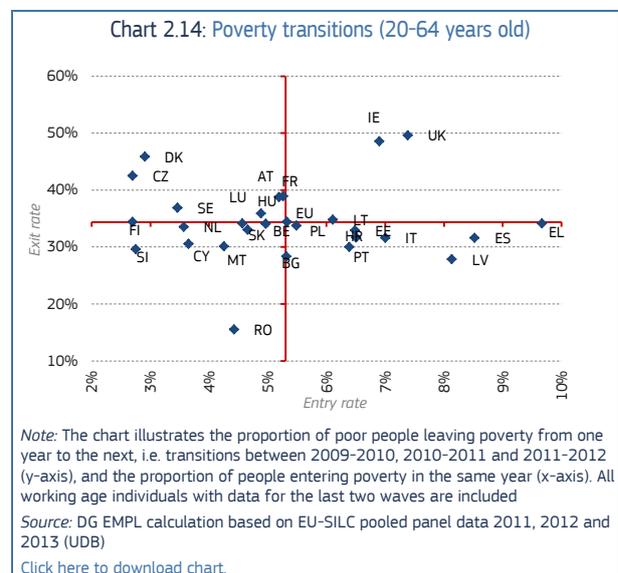
2.7. Escaping poverty through work

This section studies the connection between poverty and working status at the individual level by using EU-SILC panel data including all EU Member States except Germany (see **Box 2.2**). It focuses on the question: when does a job lift you out of poverty?

Previous studies on poverty dynamics have revealed high levels of mobility into and out of poverty (Bane and Ellwood, 1986; Jenkins, 2000; Vaalavuo 2015). One way to look at poverty dynamics is to measure year-on-year transitions into and out of poverty. These entry and exit rates are presented in **Chart 2.14**. The horizontal axis shows the people entering poverty as a percentage of those who were not poor the previous year, and the vertical axis shows the people leaving poverty as a percentage of those who were poor the previous year.

⁽¹²⁰⁾ Matsaganis, Medgyesi et al. (2015) assume no adverse effects on employment or behavioural impact in simulating the effects on poverty of raising national minimum wages to that threshold (50% of average hourly wages). Interactions with social assistance and other tax-benefit policies are taken into account.

On average in the EU, the poverty entry rate is 5.3% and the poverty exit rate is 34.4%. Romania is doing significantly worse with an exit rate of 15.5%, reflecting its high level of persistent poverty. In the UK and Ireland half of the people at risk of poverty escape poverty the following year but these two countries also have above-average entry rates into poverty (7.4% and 6.9%).



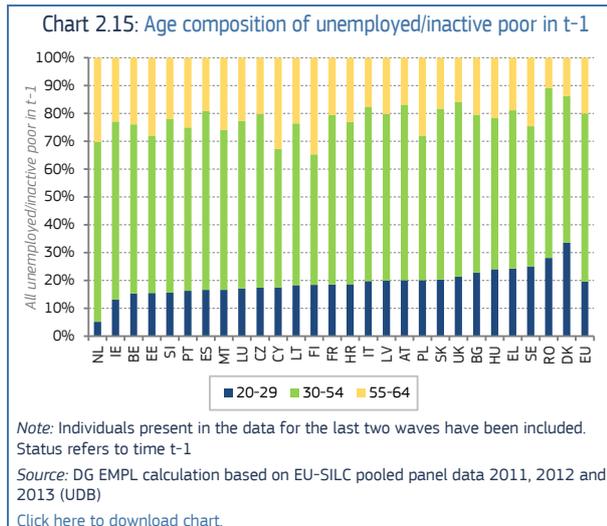
2.7.1. More than 40% of the unemployed and inactive poor are long-term poor

The unemployed and inactive⁽¹²¹⁾ poor represent around 9% of the total. The analysis here looks at what happens to the individuals in this group from one year (t-1) to the next (t-0) and describes how changes in poverty and work status are related to one another.

First, it is important to note that poverty is often a long-term condition for the unemployed and inactive. Almost 40% of those who are currently poor and also unemployed or inactive have been poor for four or more years.

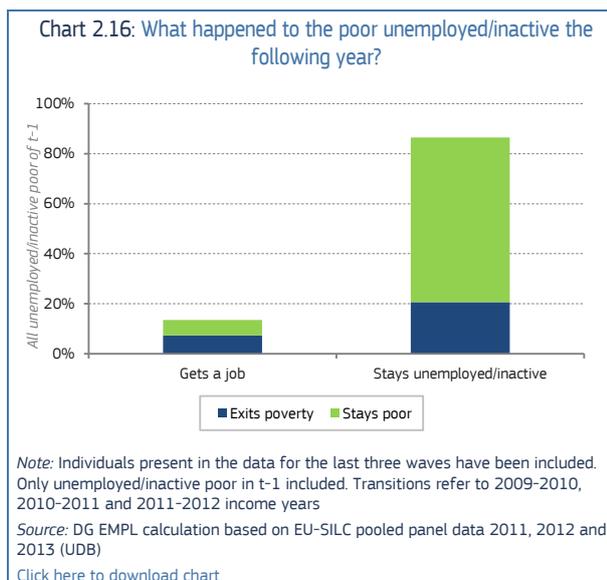
⁽¹²¹⁾ As mentioned in **Box 2.2**, individual labour market conditions are defined based on the status of 7 or more months during the income reference period (e.g. unemployment means that the person has been unemployed for 7 or more months). Inactive people include students, pupils, people who are permanently disabled, in military service or fulfilling care responsibilities and other inactive people.

Second, there are differences in the composition of the unemployed/inactive poor across countries. In Denmark, Romania, Sweden and Greece, young adults make up more than 25% of the unemployed/inactive poor, while in Cyprus and Finland more than a third are over 55 years old (Chart 2.15). Different age groups of the poor unemployed/inactive population present different challenges. For older age groups living at risk of poverty, health issues are likely to pose an additional obstacle to a return to work and escaping poverty⁽¹²²⁾, while some younger individuals may be in a transitory phase linked to studies or the transition from school to work⁽¹²³⁾.



2.7.2. Few transitions out of poverty and out of unemployment

Chart 2.16 shows the transitions year-on-year⁽¹²⁴⁾ for the unemployed/inactive poor in the EU as a whole.

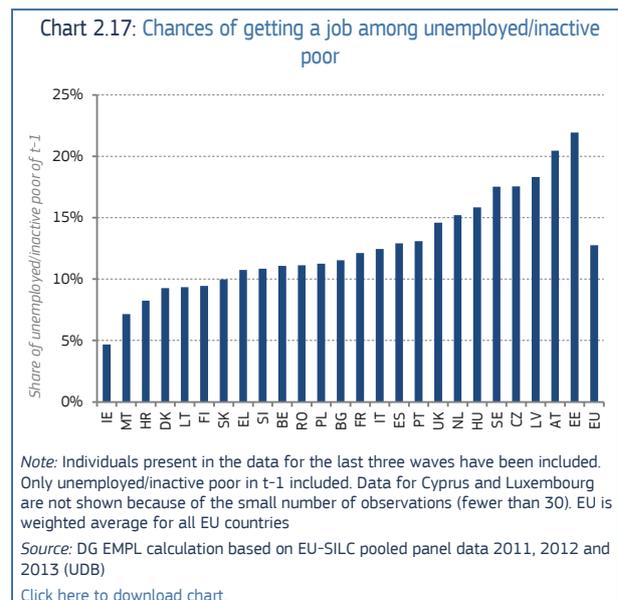


More than 85% of the unemployed/inactive poor in one year remained unemployed/inactive in the subsequent year, and more than 70% remained at risk of poverty:

- almost two thirds were in the same state the following year;
- more than 6% remained poor while getting a job;
- 20.6% left poverty while remaining unemployed or inactive; and
- 7.4% made the double transition out of unemployment/inactivity and poverty⁽¹²⁵⁾.

2.7.3. Older unemployed poor have very low chances of becoming employed

Finding a job and remaining in employment seems to provide a viable exit from poverty when one considers the lower poverty rate of employed individuals (Chart 2.5). However, the chances of the unemployed/inactive poor getting a job vary considerably across countries and also by age (Chart 2.17). In Estonia and Austria, the overall chances of finding a job are more than 20%, while they are less than 10% in Ireland, Malta, Croatia, Denmark, Lithuania and Finland. In some countries, such as Denmark and Finland, this is probably explained by the fact that the poor unemployed/inactive are in many cases young students who are not yet looking for long-term work. On average, older poor people (55-64 years old) have the lowest chance of becoming employed (i.e. being employed or self-employed for more than 7 months during the income reference period) in the next 12 months - half the chance of younger age groups.



⁽¹²²⁾ For a brief literature review on the relationship between unemployment and health, see Vaalavuo (2016).

⁽¹²³⁾ It is beyond the scope of this study to look into these details.

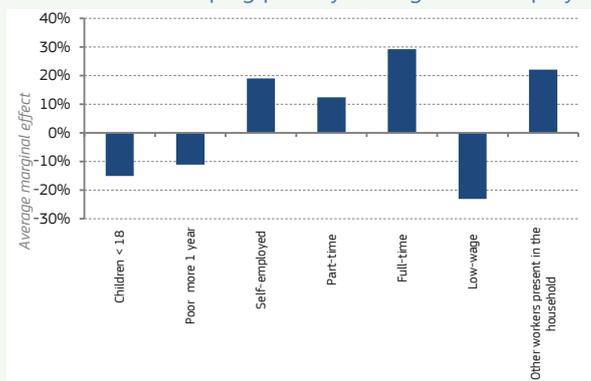
⁽¹²⁴⁾ Transitions refer to 2009-2010, 2010-2011 and 2011-2012 income years.

⁽¹²⁵⁾ Here the analysis focuses only on year-on-year transitions. We do not analyse whether people escaping poverty fall back into poverty later on. Studies have shown that the phenomenon of recurrent poverty is widespread (Stevens 1994; Gardiner and Hills, 1999; Mood and Jonsson 2012). This means that more focus should be put on sustainable escape from poverty.

Box 2.3: Factors connected with escaping poverty

Results based on a logit regression analysis show that those who became employed for at least 7 months during the income reference year had a significantly higher chance of escaping poverty compared with those who remained unemployed or inactive. However, those who became self-employed and those who got a part-time job had a lower chance than those who became full-time employees. Those who got a full-time job had almost a 30% higher chance of escaping poverty compared with those who remain unemployed or inactive, among self-employed the chance was 19% higher and among part-time workers 12% higher. Getting a low-wage job is associated with a significantly lower likelihood of escaping from poverty, other things being equal. If there are other workers in the household there is a 22% higher chance of escaping poverty, but the presence of children under 18 in the household has the opposite effect. It also seems that the longer individuals live in poverty, the smaller their chance of escaping from it.

Chart 1: Factors connected with escaping poverty among the unemployed and inactive poor



Note: Ref. = reference category. Average marginal effects based on a logit model controlling for age, gender, education and country of the individual. All significant at $p < 0.001$ level. The marginal effect for these categorical variables shows how (the likelihood of escaping poverty) differs between those who have a certain characteristic and those who don't. To derive average marginal effects, we compare hypothetical populations – e.g. part-time workers and those who did not get a job – that have all other characteristics in common. The only difference between the populations compared is therefore the response to the variable in question – e.g. being a part-time worker or not – and we can conclude that this variable is the cause of difference in the likelihood of being poor. Getting a job refers to a situation in which a person has been working for more than 7 months during the income reference period.

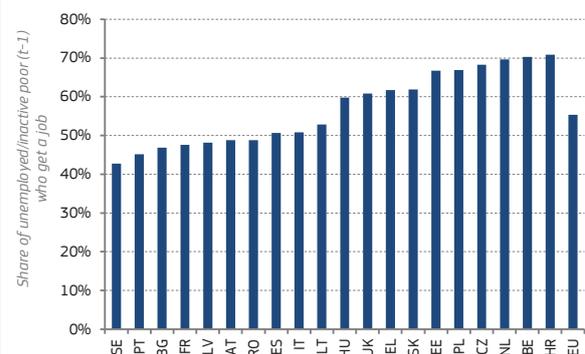
Source: DG EMPL calculations based on EU-SILC pooled panel data 2011, 2012, and 2013 (UDB)

2.7.4. High work intensity and higher wages are connected to better chances of escaping poverty

On average, more than half of those who get a job (employed or self-employed for 7 or more months during the income reference year) also escape from poverty, but there are remarkable differences across countries (Chart 2.18). The proportion is more than 70% in Belgium and Croatia.

The question thus arises why getting a job does not lift every unemployed or inactive person out of poverty. The reasons can be related to the type of work contract, the work intensity (i.e. amount of time worked) and/or low wages. In some cases it can also be linked to losing social transfers due to work income (an issue that has been identified in the literature on 'making work pay' and poverty, unemployment or inactivity traps). Household characteristics can also affect the likelihood of escaping poverty.

Chart 2.18: The share of unemployed/inactive poor getting a job and escaping poverty the following year



Note: Individuals present in the data for the last two waves have been included. Only unemployed/inactive poor in t-1 who get a job in t-0 are included. EU is weighted average for all EU countries. Data for Cyprus, Denmark, Finland, Ireland, Luxembourg, Malta and Slovenia not shown because of small number of observations (fewer than 30)

Source: DG EMPL calculation based on EU-SILC pooled panel data 2011, 2012 and 2013 (UDB)

[Click here to download chart.](#)

Table 2.1: Determinants of transitions from unemployment to employment (odds ratios)

Explanatory variables	Mod. 1	Mod. 2	Mod. 3	Mod. 4	Mod. 5	Mod. 6
Individual level						
Woman	0.842*** [0.825,0.859]	0.823*** [0.806,0.840]	0.811*** [0.794,0.829]	0.811*** [0.793,0.828]	0.828*** [0.809,0.847]	0.811*** [0.793,0.828]
Young 20-29	1.463*** [1.427,1.499]	1.407*** [1.359,1.457]	1.394*** [1.345,1.444]	1.407*** [1.357,1.458]	1.416*** [1.363,1.470]	1.407*** [1.357,1.458]
Older 55-64	0.435*** [0.421,0.449]	0.431*** [0.415,0.447]	0.425*** [0.409,0.441]	0.421*** [0.406,0.438]	0.422*** [0.406,0.439]	0.421*** [0.406,0.438]
Low education	0.648*** [0.634,0.663]	0.648*** [0.633,0.664]	0.649*** [0.633,0.664]	0.649*** [0.633,0.664]	0.629*** [0.613,0.644]	0.649*** [0.633,0.664]
High education	1.495*** [1.455,1.537]	1.489*** [1.447,1.533]	1.488*** [1.446,1.531]	1.489*** [1.447,1.532]	1.499*** [1.454,1.546]	1.489*** [1.447,1.532]
Widowed/divorced	0.904*** [0.873,0.935]	0.896*** [0.864,0.930]	0.895*** [0.863,0.929]	0.894*** [0.862,0.927]	0.885*** [0.852,0.920]	0.894*** [0.862,0.927]
Single	0.820*** [0.801,0.840]	0.818*** [0.797,0.839]	0.818*** [0.798,0.839]	0.818*** [0.798,0.839]	0.816*** [0.794,0.837]	0.818*** [0.798,0.839]
Group level						
UB coverage		0.997** [0.995,0.999]	0.996** [0.994,0.999]	0.997* [0.995,1.000]	0.998 [0.996,1.000]	0.997* [0.995,1.000]
PES involvement in finding current job			1.006*** [1.003,1.008]	1.007*** [1.004,1.010]	1.007*** [1.004,1.010]	1.007*** [1.004,1.010]
Country level						
ALMP participation				1.079** [1.026,1.135]	1.047*** [1.041,1.052]	1.047*** [1.042,1.053]
NRR					0.997 [0.992,1.001]	
GDP growth						1.024 [0.981,1.069]
Country dummies	included	included	included	included	included	included
Observations	246 953.0	230 493.0	230 493.0	230 493.0	201 398.0	230 493.0

Note: Exponentiated coefficients; 95 per cent confidence intervals in brackets; * p<0.05, ** p<0.01, *** p<0.001. Reference categories for individual level variables are: man; prime age; mid-educated; married

Source: DG EMPL calculations based on LFS micro-data 2014

[Click here to download table.](#)

A second set of explanatory variables is defined at a group level: 1) effective unemployment benefit coverage and 2) PES involvement in finding the current job⁽¹³⁰⁾. These groups capture gender and age in six groups within each country. For example, for unemployment benefit, the coverage of recipients has been calculated for each group within each country. Similarly, for PES involvement in finding a job, the proportion of jobseekers who declare some involvement of the PES in finding their job has been calculated for each group.

The third set of explanatory variables is country-level characteristics, including policy interventions such as ALMP participation⁽¹³¹⁾, the net replacement rate (NRR)⁽¹³²⁾, and macroeconomic indicators such as GDP growth⁽¹³³⁾.

The results of the regression analyses in **Table 2.1** suggest that individual characteristics are very influential. There is a higher likelihood of moving from unemployment into a job if individuals are young (rather than prime age adults) and highly-educated (rather than having only mid-level education). Being a woman, being old (rather than a prime-age person), having only low-level education (rather than mid-level education), and being widowed/divorced or single are all associated with lower chances of moving out of unemployment.

The chances of getting a job are strongly and positively linked to the ALMP participation rate in the country. The active involvement of PES in finding a job is also significant and positively linked to movements out of unemployment across four regression specifications. This suggests that the more substantial the role of PES within each group, the higher the probability of moving out of unemployment (though the magnitude of the impact is small). Unemployment benefit coverage has a very limited impact or no impact on the chances of getting a job. Similarly, the level of the replacement rate (calculated at country level) and GDP growth are not significant.

2.8.3. Quality of transitions into employment

At the EU level, around 42% of people who leave unemployment get a temporary job and around 9% move into self-employment. More than 75% of those people who leave unemployment to take a temporary

(67% of the average wage) and is in the second month of unemployment.

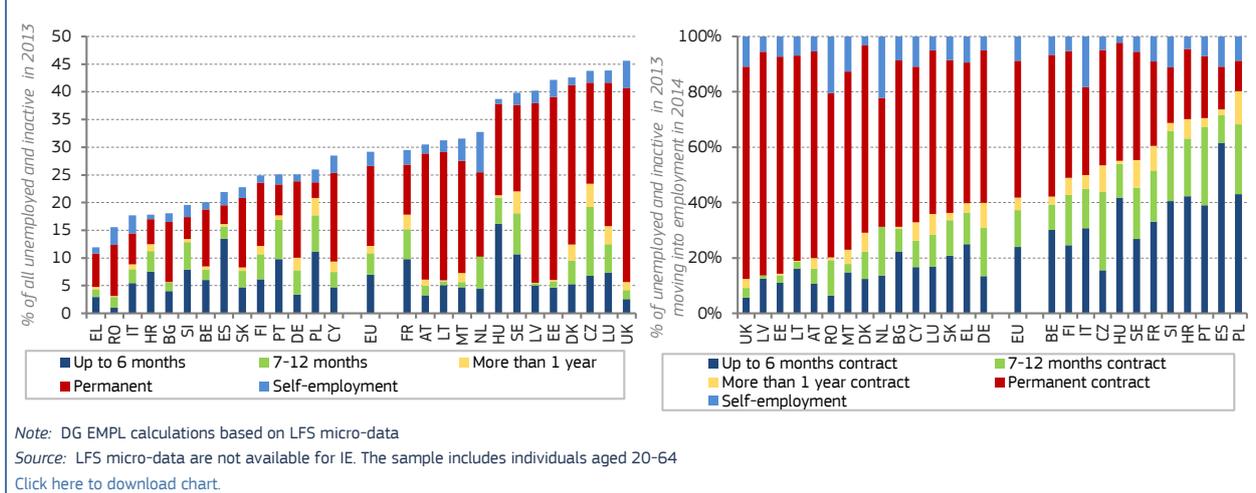
⁽¹³³⁾ Some key variables such as other macroeconomic factors are not included, although partly controlled for by GDP growth and country dummies.

⁽¹³⁰⁾ Unemployment benefit coverage is defined at group level and refers to the year in which individuals were unemployed (t-1, 2013). The LFS survey only registers unemployment benefit recipients among current unemployed, while no information is available on whether an unemployed person who found a job was receiving the unemployment benefit the year before. For this reason information on unemployment benefits receipt cannot be included at individual level in the regression analysis. By contrast, PES involvement in finding the current job is a question available at individual level for those unemployed who moved to employment in the LFS survey. However, in this analysis, the PES involvement has been included at group level as the interest is in how improving the role of PES across different groups of individuals may improve the chances of escaping unemployment.

⁽¹³¹⁾ ALMP participation is measured as the percentage of participants in ALMP measures per 100 people wanting to work. Measures taken into account include: training, employment incentives, supported employment and rehabilitation, direct job creation and start-up incentives.

⁽¹³²⁾ The net replacement rate included in the regression analysis is measured for a single person who was a low-wage worker

Chart 2.20: Transitions from unemployment to employment by length of the contract, 2014



job said that they did so only because they could not find a permanent job ⁽¹³⁴⁾.

The first panel in **Chart 2.20** shows that at the EU level, 29.2% of all unemployed people found a job between 2013 and 2014: 14.4% found a permanent job, 2.6% became self-employed and the remaining 12.2% moved into a temporary job, of which more than half (7.0%) had very short-term contracts (up to six months). The second panel in **Chart 2.20** illustrates that in Poland, Spain, Portugal, Croatia, Slovenia and France more than 60% of unemployed people who found a job moved into temporary employment. Spain has the highest proportion of people (61.6%) who take jobs with very short-term contracts (up to six months). At the other end of the spectrum, in the Baltic countries, the UK and Austria around 75% of unemployed people who moved into employment found a permanent job.

3. HOURLY WAGES AT THE BOTTOM OF THE WAGE DISTRIBUTION

The hourly wage is an important factor affecting disposable income of workers at the lower end of the wage distribution, as it constitutes their most important source of income.

Nevertheless, hourly wages ⁽¹³⁵⁾ at the lower end of the wage distribution were fairly low if compared with the average hourly wage. For the EU as a whole ⁽¹³⁶⁾ they were about 36% of the average hourly wage in 2013, compared with 33% in 2006 (see **Chart 2.21**).

Moreover, notable differences between Member States exist. In Belgium and Finland employees in the bottom decile were paid an hourly wage which was about 50%

of the average hourly wage, while the same group of employees earned about 25% of the average hourly wage in Estonia, Cyprus and Spain. From 2006 to 2013, Finland recorded the strongest increase, while Estonia, Bulgaria and Spain had the strongest decrease ⁽¹³⁷⁾.

Chart 2.21: Hourly wages: first decile as percentage of average hourly wage

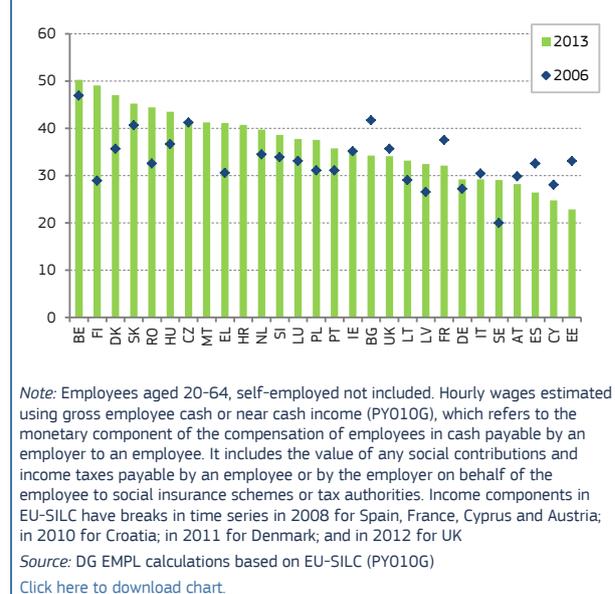


Chart 2.22 shows the nominal hourly wage level adjusted for consumer prices (i.e. the real hourly wage), which is a good measure of the evolution of the purchasing power of the hourly wage over time.

From 2006 to 2013 developments in the real hourly wage at the bottom of the wage distribution varied strongly across Member States. While the real hourly wage increased considerably in Finland and Sweden, it decreased strongly in Cyprus, Estonia and Spain.

⁽¹³⁴⁾ The LFS survey contains a question on reasons for having a temporary job/work contract of limited duration (variable "TEMPREAS"). Among the possible reasons one is "person could not find a permanent job".

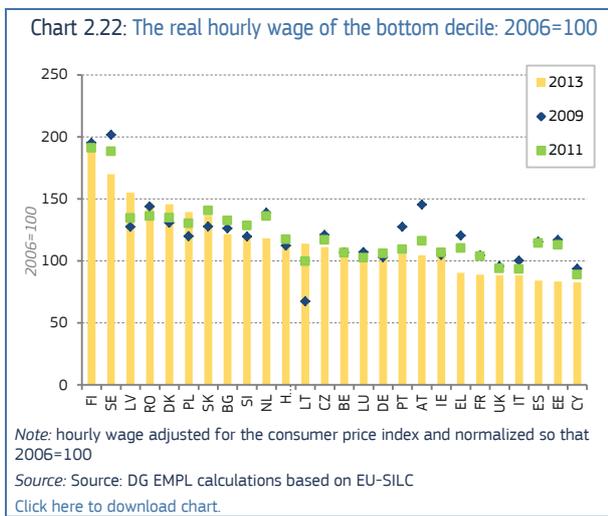
⁽¹³⁵⁾ Hourly wages estimated using EU-SILC data, i.e. gross employee cash or near cash income (PYO10G). The earnings of self-employed people are not included.

⁽¹³⁶⁾ Unweighted average.

⁽¹³⁷⁾ Such developments are driven by several factors, including those that have a direct impact on the productivity and bargaining power of low wage earners, but also composition effects; since the onset of the crisis some of the most vulnerable and the lowest-paid have become unemployed, and thus did not lower the average wage of the bottom decile.

The data indicate that women, the young and the low-skilled were most likely to be found in the bottom decile of the wage distribution between 2006 and 2013, while the high-skilled and men were most likely to be in the higher wage deciles.

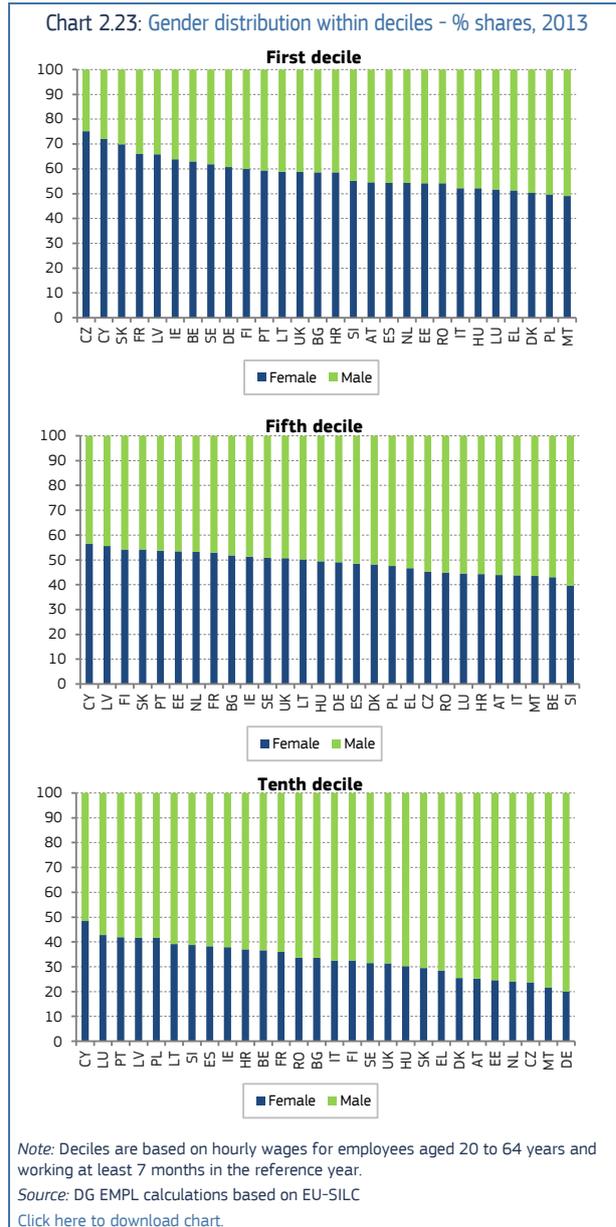
There was a larger proportion of women than of men in the bottom wage decile in all Member States (except Malta and Poland) in 2013, with the highest proportion of women in the Czech Republic (Chart 2.23). In the same year, in all Member States, the proportion of men in the top decile was larger than that of women, with the highest proportion of men in Germany and Malta, and the lowest proportion of men in Cyprus and Luxembourg. In the fifth decile the gender distribution was more balanced, with the highest proportion of women found in Cyprus and Latvia and the lowest proportion of women in Slovenia and Belgium.



All in all, Chart 2.23 shows that women are over-represented in the bottom decile of the earnings distribution and under-represented in the top deciles. This can be attributed to several factors. First, women and men have different jobs and work in different sectors, and women tend to work in the jobs with lowest earnings⁽¹³⁸⁾. This in turn reflects, inter alia, gender imbalances in education: girls are less likely to choose scientific or technological fields of study⁽¹³⁹⁾. Second, on average, women spend more time than men carrying out unpaid domestic and care work, so that they tend to work shorter hours than men and have fewer opportunities to advance their careers. Third, in some cases (albeit illegally) women are not

⁽¹³⁸⁾ For more background information on occupational gender segregation see for instance, Burchell, et al. (2014), 'A New Method to Understand Occupational Gender Segregation in European Labour', DG JUST report at http://ec.europa.eu/justice/gender-equality/files/documents/150119_segregation_report_web_en.pdf.
⁽¹³⁹⁾ See, for instance, European commission (2013), 'Report on Progress on equality between women and men in 2012', Commission Staff Working Document, SWD (2013) 171 final, doi: http://ec.europa.eu/justice/gender-equality/files/swd_2013_171_en.pdf.

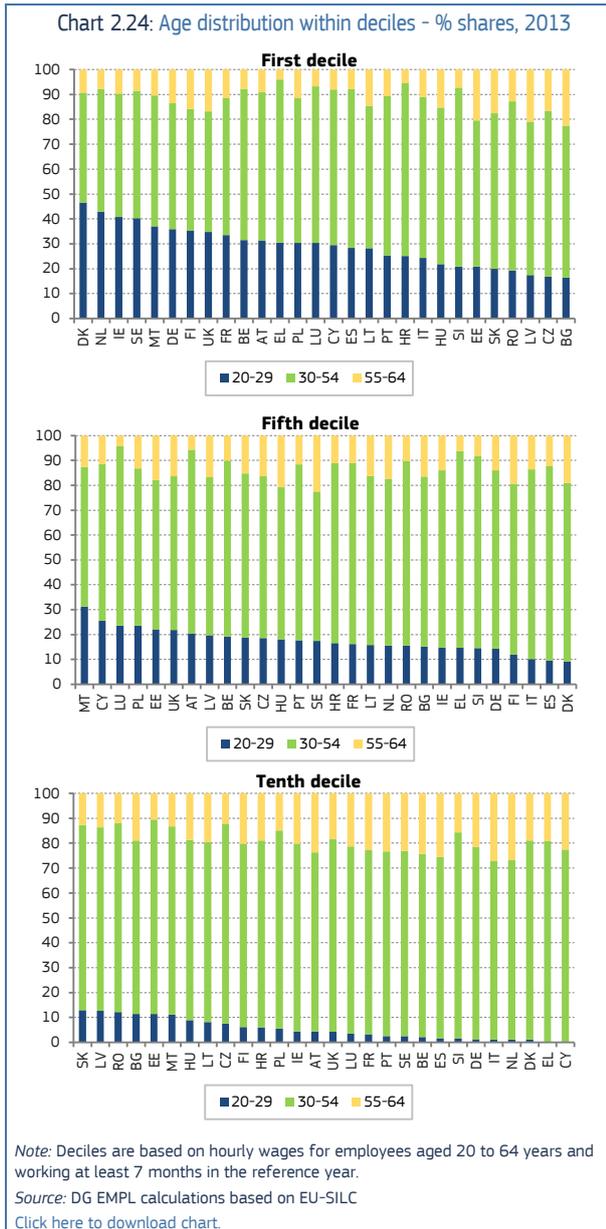
paid the same as men for the same work or work of equal value⁽¹⁴⁰⁾.



Young employees (20 to 29 years) constitute the largest proportion of employees in the bottom wage decile in Denmark, the Netherlands, Ireland and Sweden: to some extent this reflects the high part-time labour market participation by students in the Nordic Member States⁽¹⁴¹⁾. In Slovenia, Croatia and

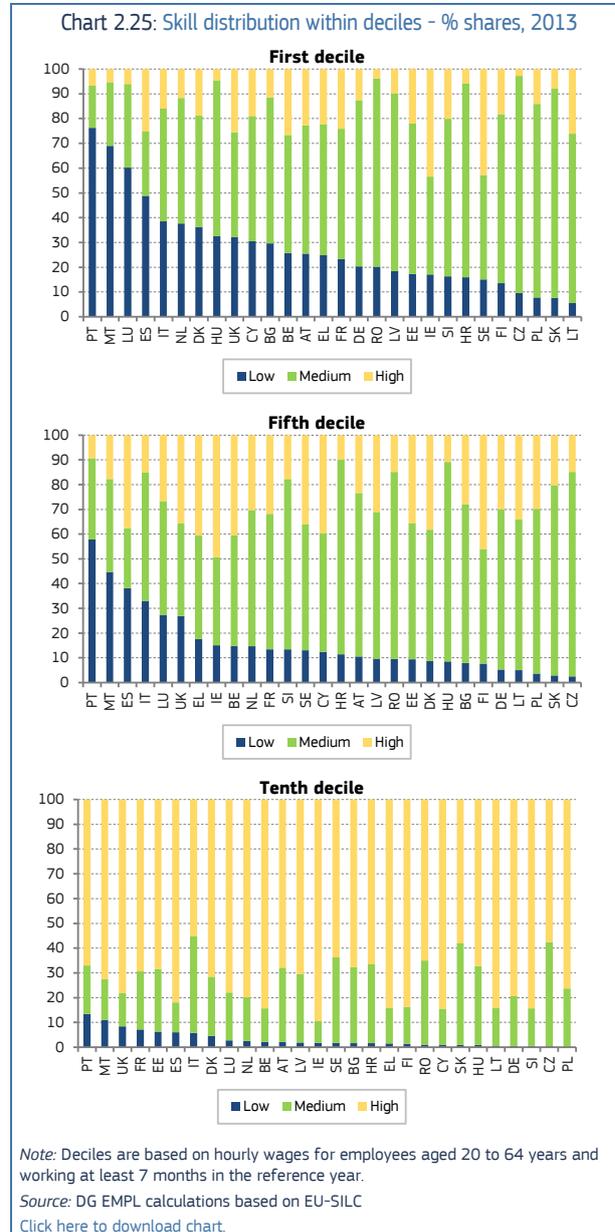
⁽¹⁴⁰⁾ For example, Foster-McGregor et al. (2014) report that (using Structure of Earnings Survey data) in 2010 the contribution of differences between men and women to inequality (as measured by the Gini index) ranged from more than 6% in Finland and around 4% to 5% in Estonia, Slovakia, Sweden and Norway to less than 1% in Bulgaria and Romania. For more details see Neil Foster-McGregor, Sandra Leitner, Sebastian Leitner, Johannes Pöschl and Robert Stehrer (2014), 'Study on various aspects of earnings distribution using micro-data from the European Structure of Earnings Survey', doi: <http://ec.europa.eu/social/BlobServlet?docId=12622&langId=en>.
⁽¹⁴¹⁾ Such jobs include babysitting, housekeeping, cleaning, waiting, delivering papers or acting as kitchen and bar assistants and similar jobs. See, for instance, <http://www.ucnorth.dk/home/programmes->

Romania the middle-aged group (30 to 54 years) constituted by far the largest group of workers in the bottom decile (Chart 2.24). The highest proportion of older workers (55 to 64 years) is to be found in Bulgaria, Latvia and Estonia, with the lowest proportions observed in Greece, Croatia and Luxembourg, partly reflecting the overall low participation rates of older workers in these Member States. In the fifth decile the middle-aged workers constitute the largest group of workers in all Member States, while in the tenth decile the presence of young workers is very low in most Member States (except in Slovakia, Latvia, Romania, Bulgaria, Estonia and Malta).



The proportion of low-skilled workers within the bottom decile varies widely across Member States, reflecting strong differences in education level, such as a very high proportion of low-skilled workers in overall employment in Portugal and a low proportion in Slovakia and Lithuania (Chart 2.25). As might be

expected, the proportion of high-skilled workers within the top decile is large in all Member States, while the proportion of the low-skilled is rather low (except in Portugal, Malta and the United Kingdom). Low-skilled workers are most likely to be found in the bottom decile as their reservation wage (below which they will not accept a job offer) is most likely to be lower than that of the other skill groups.



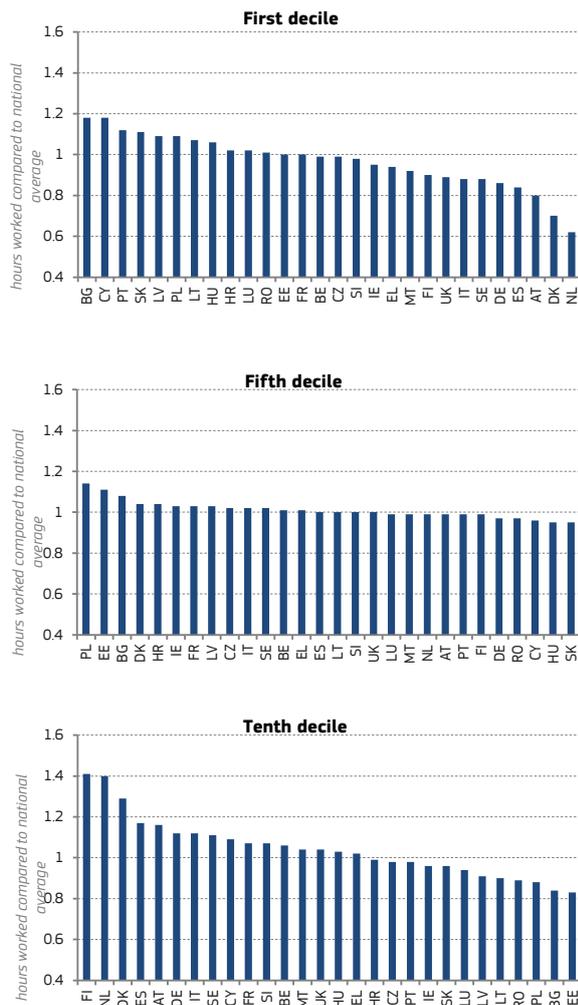
In most Member States, employees receiving the lowest hourly wage worked fewer hours than the national average: notable exceptions are Bulgaria and Cyprus where employees in the bottom decile worked almost 20% more than the national average in 2013 (Chart 2.26). In the Netherlands, the employees in the bottom decile worked about 60% of the national average number of hours. Hours worked in the fifth decile were close to the national average in most Member States. Employees in the top decile recorded about 40% more working hours than the national average in Finland and the Netherlands, while they worked only about 85% of the national average in Estonia and Bulgaria.

Box 2.4: Definitions used for wage mobility

In the analysis on wage mobility, the focus is on people who have been employees in two consecutive waves, meaning that they were employees in $t-1$ (referring to data of 2009, 2010 and 2011) and they remained employees the following year, in t (referring to data of 2010, 2011 and 2012). The analysis refers to averages of year-on-year transitions from 2009-2010, 2010-2011 and 2011-2012.

The self-declared economic status refers to the year of the interview, while the wage refers to the year before. The time discrepancy between the wage reference year and all other variables in EU-SILC has been solved by using the information referring to the wage reference year for all variables. Negative wage values are coded as zero.

Chart 2.26: Hours worked – compared with national average, 2013



Note: Deciles are based on hourly wages for employees aged 20 to 64 years and working at least 7 months in the reference year.

Source: DG EMPL calculations based on EU-SILC

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4. THE CHANCES OF UPWARD MOBILITY

The lower the degree of labour and wage mobility in a country, the higher is the risk of being stuck in unemployment and low-paid jobs. Understanding the drivers of labour and wage mobility is therefore important for policy-makers. Similarly, identifying

groups of individuals with lower chances of upward mobility may help policy-makers to target active and passive labour market policies more effectively towards the most vulnerable individuals.

This part of the chapter presents evidence on various types of transition based on EU-SILC panel data⁽¹⁴²⁾. The analysis is based on pooled longitudinal EU-SILC datasets from 2011, 2012, and 2013 and covers employees⁽¹⁴³⁾ aged 20-64 years old for whom data for at least two consecutive years are available, and who maintain their status over at least two years⁽¹⁴⁴⁾ (see **Box 2.4** for more details on the definitions used in the analysis). Due to the limited length of EU-SILC panel data, the analysis only looks at chances to improve the wage in the very short term (year-on-year) and short term (two-year time span), while it would be interesting to analyse these phenomena over longer periods of time. The existing empirical evidence supports the idea that wage mobility increases with the time span considered (Bachmann et al., 2016).

4.1. Transitions between labour market statuses

Table 2.2 presents transitions across different labour market statuses⁽¹⁴⁵⁾ from one year to the next. Seven different labour market statuses are reported. There are four employee profiles which combine contractual condition (temporary vs. permanent jobs) and working time arrangement (part-time vs. full-time jobs). In addition to these four types of employees there are self-employed, unemployed and inactive individuals.

The transition matrix presented in **Table 2.2** shows the proportion of individuals who maintain the same labour market status, and the proportion of people who move from a given status to any other from one year ($t-1$) to the next ($t-0$). From the transition matrix a synthetic mobility index (Baldini and Toso 2004; Burkhauser and Couch 2009) can be easily calculated as $M = \frac{N-1r}{N-1}$, where N is the number of possible labour

⁽¹⁴²⁾ All EU countries are included except Germany, for which panel data are not publicly available.

⁽¹⁴³⁾ Self-employed people are not included in the analysis, due to the lower reliability of their labour income variable in EU-SILC compared with employees.

⁽¹⁴⁴⁾ At EU level around 91.4% of employees maintain their status over two years, 4.3% become unemployed, 3.2% become inactive and 1.1% move to self-employment.

⁽¹⁴⁵⁾ Labour market status refers to self-declared status at the time of the interview.

Table 2.2: Year-on-year transition matrix by employment status (employees aged 20-64), 2010-2011, 2011-2012 and 2012-2013.

Employment states in t-1	Employment states in t							% of group in t-1	% of group in t (ppt change)
	Permanent full-time	Permanent part-time	Temporary full-time	Temporary part-time	Self-employed	Inactive	Unemployed		
Permanent full-time	89.5	2.4	1.7	0.2	1.0	2.7	2.7	41.9	-0.6
Permanent part-time	13.2	73.7	1.1	1.8	1.4	5.6	3.3	6.0	0.3
Temporary full-time	21.6	1.2	54.6	3.6	1.8	3.6	13.7	5.6	-0.1
Temporary part-time	5.3	10.1	11.7	47.8	1.7	8.2	15.2	1.8	0.1
Self-employed	2.8	0.6	1.0	0.4	89.0	3.8	2.5	11.0	0.2
Inactive	2.7	1.4	1.9	1.1	1.9	85.3	5.7	24.7	-0.1
Unemployed	7.7	2.1	9.9	3.4	3.5	14.1	59.4	9.1	0.3
Summary statistics	Mobility index							0.335	

Note: All EU countries shown together. Figures refer to year-on-year transition rates (2010-2011, 2011-2012 and 2012-2013) and include only individuals (aged 20-64) for whom data for two consecutive years is available.

Source: DG EMPL calculations based on EU-SILC pooled panel data 2011, 2012 and 2013 (UDB).

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Table 2.3: Transition matrix by employment status in a two-year period (20-64 years old), 2009-2011, 2010-2012 and 2011-2013

Employment states in t-2	Employment states in t							% of group in t-1	% of group in t (ppt change)
	Permanent full-time	Permanent part-time	Temporary full-time	Temporary part-time	Self-employed	Inactive	Unemployed		
Permanent full-time	84.3	3.2	2.3	0.4	1.6	4.5	3.8	43.2	-1.4
Permanent part-time	15.0	66.4	1.3	2.5	2.2	8.7	3.9	6.1	0.6
Temporary full-time	29.6	1.8	42.8	3.6	2.7	5.0	14.5	5.6	-0.2
Temporary part-time	9.9	13.4	11.0	38.0	2.0	10.0	15.9	1.9	0.2
Self-employed	4.5	1.3	1.6	0.7	82.7	5.1	4.1	10.9	0.2
Inactive	4.5	2.2	2.9	1.7	2.8	78.8	7.1	23.3	0.1
Unemployed	12.5	2.7	10.6	3.8	4.8	17.9	47.8	8.9	0.4
Summary statistics	Mobility index							0.432	

Note: DG EMPL calculations based on EU-SILC pooled panel data 2011, 2012 and 2013 (UDB)

Source: All EU countries shown together. Figures refer to transition rates in two-year time span (2009-2011, 2010-2012 and 2011-2013). Figures include only individuals (aged 20-64) for whom data for three consecutive years is available

[Click here to download table.](#)

market statuses (seven in this case), and tr is the trace of the matrix (i.e. the sum of the elements on the main diagonal). The mobility index ranges from 0 to 1 where 0 corresponds to complete immobility and 1 to maximum mobility.

Table 2.2 shows that from one year to the next (2010-2011, 2011-2012 and 2012-2013) around 60% of unemployed people in the EU remain unemployed and 14.1% move to inactivity. For inactive people the figures are worse. Less than 10% of the inactive individuals in the EU become employed (including self-employed) in one-year time frame⁽¹⁴⁶⁾. The table also shows that 21.6% of temporary full-time employees obtain a permanent full-time contract. At the same time 13.7% lose their job and 3.6% become inactive; these are of course much higher proportions than among permanent workers. Temporary part-time workers have an even greater chance of becoming unemployed (15.2%) or inactive (8.2%) and a much poorer chance of getting a permanent full-time job (5.3%).

Overall, the year-on-year mobility index of 0.335 in Table 2.2 suggests that the labour market status of individuals does not change much within a year. However, Table 2.3 shows that over a two-year period employment become more mobile (the mobility index rises from 0.335 to 0.432). The higher mobility index

for the two-year period is mostly the result of the return to the labour market of inactive people, of a higher number of unemployed people finding a job and of higher transition rates from temporary to permanent contracts. The higher job mobility over the two-year period compared with the annual time frame is partly attributable to a greater number of temporary workers and self-employed becoming unemployed⁽¹⁴⁷⁾.

4.1.1. The chances of moving to permanent contracts deteriorated during the crisis

Labour market polarisation can be the result of a deepening divide between those who have access to a job and those who do not, between those with high and those with low wages, and between those with secure jobs and those with precarious jobs. A new class-in-the-making is rapidly growing: the so-called 'precariat'. "The precariat consists of millions of people with insecure jobs, housing and social entitlements. They have no occupational identity, and do not belong to any occupational community with a long-established social memory giving an anchor of ethical norms" (Standing, 2011). The identification of social divisions on the basis not only of workers' pay, but also of their employment security, further supports the idea that the nature of contracts and working time arrangements play a significant role in creating labour

⁽¹⁴⁶⁾ Note that inactive people also include the disabled and students. The low transition rate may be because these people are not looking to become employed.

⁽¹⁴⁷⁾ However this evidence may be influenced by the crisis. Since 2013 the labour market in the EU has gradually recovered. Therefore, this trend could be less evident in the most recent years.

market polarisation. Movements from temporary to permanent contracts, and from part-time to full-time jobs, both represent progress towards more secure wages.

Empirical evidence supports the conclusion that the use of temporary contracts increased in most Member States during the crisis (between 2008 and 2013), and the rate of movement to permanent contracts deteriorated. At the same time, more temporary workers lost their jobs. Between 2008 and 2013, the probability of moving from temporary to permanent jobs fell by 4.6 percentage points at the EU level. Overall, only 23% of those who were temporary workers in 2012 had a permanent contract in 2013, while 13% became unemployed (Fulvimari et al., 2016).

The role of temporary contracts differs considerably across the EU. In those countries where there is a low rate of movement from temporary to permanent jobs there is also a strong likelihood of temporary workers becoming unemployed. This is particularly the case in Spain, but also in Greece, Italy and France. In other Member States (UK and Lithuania) there is a greater chance that temporary work will be a “stepping stone” to a more permanent job. In terms of individual characteristics, moving into permanent jobs is harder for young people (see also Smith and Villa, 2016).

The rate of movement from part-time to full-time jobs also deteriorated during the crisis. Moving into full-time jobs becomes less frequent with age and is also less likely for women. This may well reflect the fact that part-time jobs are linked with part-time retirement; where this opportunity exists it enables older workers to extend their working lives (Eurofound, 2016).

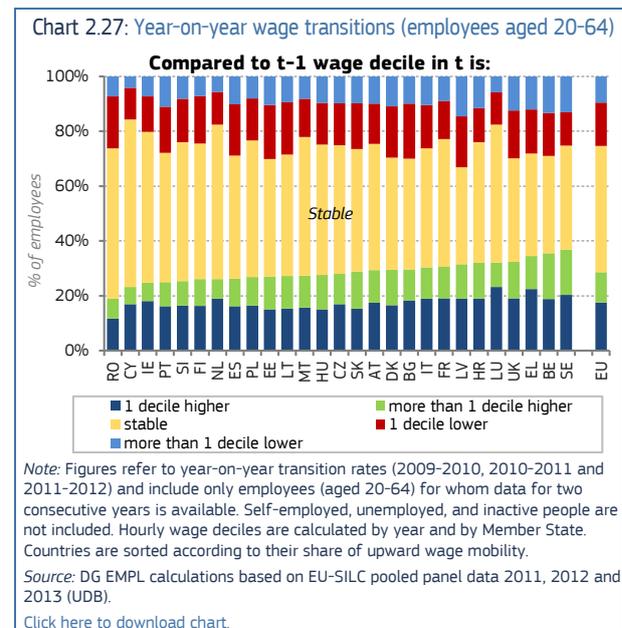
Improved economic conditions, stronger active labour market policies and better incentives to work all help to account for higher or lower rates of transition from temporary to permanent jobs and from part-time to full-time occupations. Recent evidence shows that the crisis significantly reduced the likelihood of moving from temporary to permanent contracts (Bachmann et al., 2014).

4.2. Transitions to higher wages

The chances of an individual’s wage changing over time may vary considerably across the different segments of the wage distribution (i.e. bottom, middle and top) and across different population groups. These aspects are not captured by wage inequality indicators, but are crucial in terms of “wage inequality tolerance”. Indeed, the higher the degree of wage mobility, the more equality of opportunity there will be. If people can see that they have a chance to increase their wages, and that skills and effort are well rewarded, they may become more tolerant of wage inequality. However, wage instability and volatility are also a source of financial insecurity.

4.2.1. Half of employees change wage decile from one year to the next

Chart 2.27 shows year-on-year wage transition rates by Member State, for those employees who maintain their employed status from one year ($t-1$) to the next (t) – around 91.4% of employees at EU level. Overall, more than half of the employees in the EU move to a different wage decile from one year to the next. Total wage mobility (wage transitions both upward and downward) differs considerably across the EU, ranging from 41% in Cyprus to 66% in Latvia.

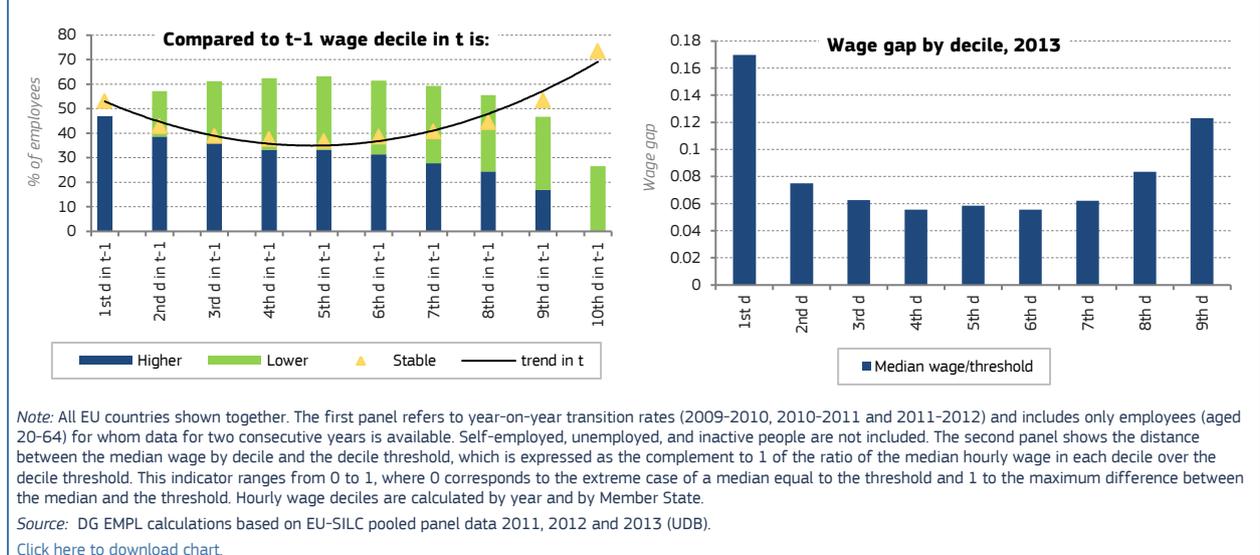


4.2.2. Young adults are more likely to experience wage mobility

The picture of overall wage transitions by individual socio-demographic characteristics shows few differences between women and men in most Member States. By contrast, age seems to play an important role. Upward wage transitions are more common among younger workers (aged 20-29) who, in general, experience the highest wage volatilities and also have very high chances of moving down the wage distribution. Older workers aged 55 and above have the lowest chances of improving their wage position from one year to the next and a relatively higher risk than prime-age workers of moving downward. This is likely to be linked to the fact that older workers tend to have relatively stable occupations (more stable than prime-age workers) and that their careers are less likely to progress than those of younger workers.

Overall, workers with low-level education have the highest mobility between wage deciles, followed by those with mid-level education, while highly-educated employees generally have higher wage stability. This is in line with recent findings based on EU-SILC data, according to which lower skills are associated with higher wage mobility and therefore with lower wage stability (Bachmann et al., 2016).

Chart 2.28: Year-on-year wage transitions by decile (employees aged 20-64), EU average



4.2.3. More wage mobility in the middle of the wage distribution

The first panel in **Chart 2.28** shows total wage mobility (the bars, signalling both upward and downward) and wage stability (the black line), which reaches its lowest point at the 5th decile. Low wage mobility at the bottom of the distribution is known as the "sticky floor" effect, a pattern that persistently keeps workers with low wages at the bottom of the distribution (OECD, 2015). By contrast low wage mobility at the top of the distribution is known as the "glass ceiling" effect, a situation which affects all those employees with very high wages who are unable to improve their financial situation further. And upward wage mobility tends to be higher at the bottom of the wage distribution than at the middle (corroborating findings by Bachmann et al., 2016).

The difficulty of jumping from one decile to the next varies, depending on the part of the distribution from which the worker starts. The second panel in **Chart 2.28** shows that it is at the bottom of the wage distribution (i.e. first decile) where the wage gap between the median wage and the decile threshold (defined as the complement to 1 of the ratio of the median hourly wage in each decile over the decile threshold) is the highest. This suggests that moving from the first to the second decile requires a relatively high wage increase compared with upper segments of the wage distribution.

Individual transitions are presented in the form of a transition matrix in **Table A.2.2** in the **Annex**. This matrix shows the percentages of workers who stay in the same decile, and who move from one decile to another. 29.7% of employees experience upward wage mobility, while 25.6% move downwards. Both these percentages, but particularly the proportion of workers whose wages move upward, increase over the time span considered. As a result, the wage mobility indices move from 0.61 for year-on-year transitions to 0.67 for transitions within three years. This is considerably

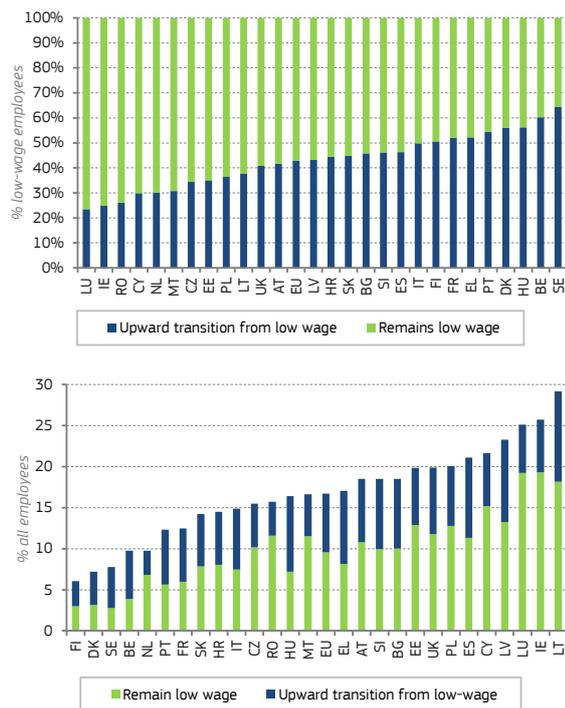
higher than the transitions between different labour market statuses shown in **Table 2.2** and **Table 2.3**.

4.2.4. The chances of escaping from low wages

How persistent are low wages⁽¹⁴⁸⁾? What are the chances of low-wage employees moving upward and what facilitates this? Overall, in 2012 15.2% of employees were low-wage earners in the EU. Of those, 55.5% were still low-wage earners the following year, while 44.5% had moved up from low-waged status.

⁽¹⁴⁸⁾ Low wage is a concept that relates to gross wage distribution without taking account of a worker's household situation, living standards, and family and other needs (Lucifora and Salverda, 2009). As mentioned in section 2, low wage earners are defined as those who earn below two-thirds of the median hourly wage.

Chart 2.29: Year-on-year upward transitions from a low wage and the share of employees who remain low-wage earners (employees aged 20-64)



Note: DG EMPL calculations based on EU-SILC pooled panel data 2011, 2012 and 2013 (UDB).

Source: Figures refer to year-on-year transition rates (2009-2010, 2010-2011 and 2011-2012) and include only employees (aged 20-64) for whom data for two consecutive years is available. Self-employed, unemployed, and inactive people are not included. Countries are sorted according to their share of upward wage mobility. Low wages are defined as two-thirds of the median hourly wage and are calculated by country and year.

[Click here to download chart.](#)

As already shown, Member States vary widely in their proportion of low-wage workers, from below 10% in the Nordic countries, the Netherlands, Belgium and France, to 25% and above in Luxembourg, Ireland and Lithuania.

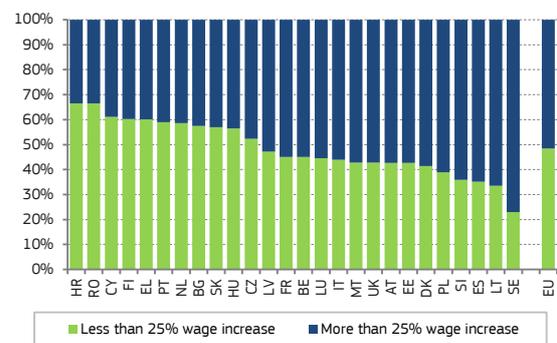
Member States also vary with respect to the chances that their low-wage earners have of improving their condition through an upward transition⁽¹⁴⁹⁾. The upper panel in **Chart 2.29** shows that in Sweden and Belgium more than 60% of low-wage workers in *t-1* are no longer earning low wages in *t*, while in Luxembourg, Ireland and Romania low-wage workers are most likely to remain in this condition. The lower panel in **Chart 2.30** indicates how many employees move upward from low hourly pay. It shows, for example, that Sweden and Belgium have very high exit rates from low wages, in addition to a low incidence of low pay in these countries.

Upward transition rates from low wages increase considerably within a two-year time frame, compared

⁽¹⁴⁹⁾ Upward transitions from low-wage status vary a lot (both within and between countries) depending on the definition of low-wage earners chosen. In general, the relative definition of low-wage earners used in this section (i.e. all those employees whose wage is below two-thirds of the median wage) leads to higher year-on-year upward transition rates compared to the absolute definition of low-wage earners as those belonging to the bottom three deciles.

with year-on-year movements. While on average at EU level the share of low-wage employees who move upward from low-wage from one year to the other is around 44.5%, in a two-year time frame around 48% of employees with low hourly pay manage to escape from low wages. This increase in the chances of upward mobility is true for most EU Member States with the exception of Ireland, Spain, UK, Latvia, Austria and Luxembourg⁽¹⁵⁰⁾.

Chart 2.30: Proportion of people with a wage increase of more than 25% among those escaping low wages (employees aged 20-64)



Note: Data are not reliable for IE due the limited sample size. Figures refer to year-on-year transition rates (2009-2010, 2010-2011 and 2011-2012) and include only employees (aged 20-64) for whom data for two consecutive years is available. Self-employed, unemployed and inactive people are not included. Low wages are defined as two-thirds of the median hourly wage and are calculated by country and year.

Source: DG EMPL calculations based on EU-SILC pooled panel data 2011, 2012 and 2013 (UDB).

[Click here to download chart.](#)

Chart 2.30 shows how far people moving out of low wages get. Overall, a significant proportion (52% at EU level) of employees moving upward from low wages receive a wage increase of more than 25%. Sweden outperforms the EU average with around 77% of employees moving upward from low wages, increasing their pay by more than 25%.

4.2.5. Individual characteristics connected to upward mobility from low-wage jobs

To determine which individual characteristics are associated with upward mobility from low wages **Chart 2.31** presents the average marginal effects from a logistic regression model⁽¹⁵¹⁾. The regression analysis suggests that being highly educated, having changed employment in the year before and working fewer hours than before are all characteristics associated with higher probability of moving upward from a low wage.

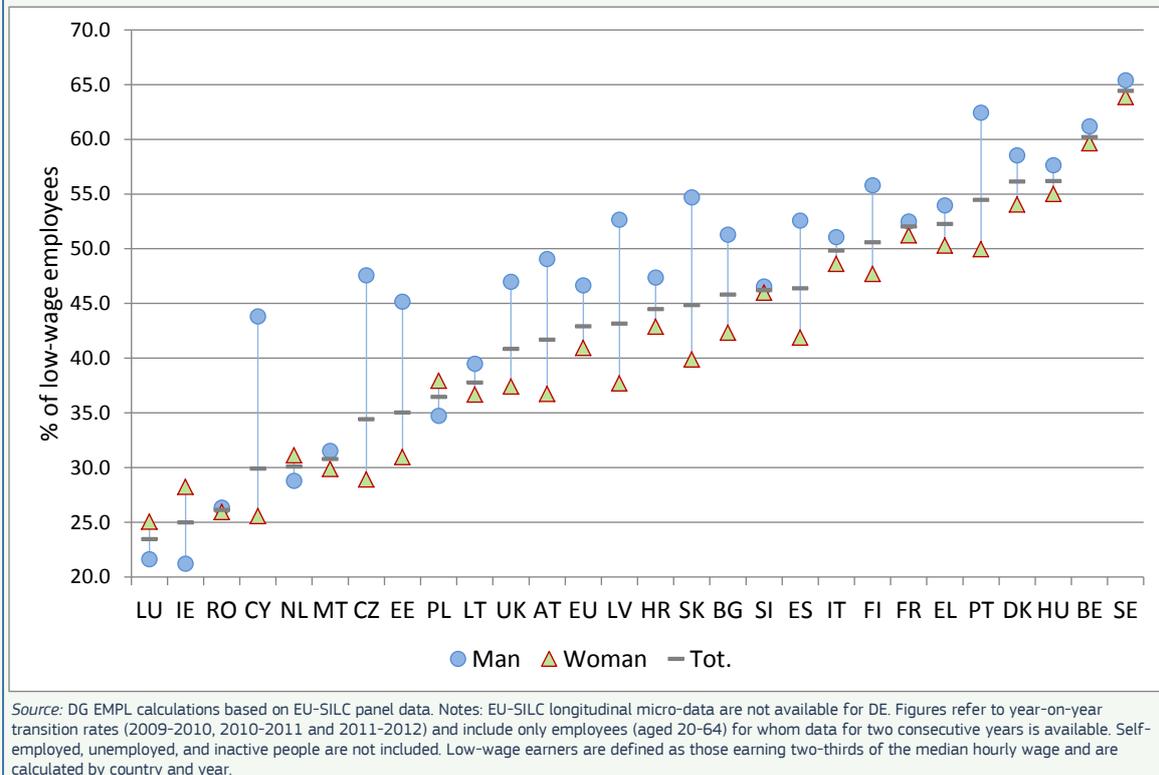
⁽¹⁵⁰⁾ Data on this are available upon request.

⁽¹⁵¹⁾ Full model with odd ratios is available upon request.

Box 2.5: Women are less likely to escape low wages

Despite being over-represented among the group of low-wage earners, women also have lower chances of moving upward along the wage ladder and escaping low wages. At EU level the proportion of women who escape low wages from one year to the other (42.4%) is around 5 percentage points lower than that of men (47.5%). Women have a lower upward transition rate from low wages than men (Chart 1) especially in the Czech Republic, Cyprus, Estonia, Latvia, Slovakia, Portugal, Spain and Austria. Interestingly, the Czech Republic and Slovakia are countries where young mothers tend to stay at home with children and where, as a consequence, the employment gap between parents or mothers and other women is very large. The career interruption of most mothers in these countries may lead to persistently lower wages of women compared to men.

Chart 1: Year-on-year upward transition from low wage by gender



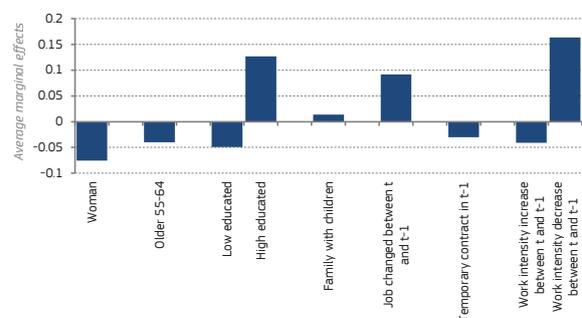
The evidence that being highly educated improves the chances of moving upward from a low wage may suggest a merit effect and better opportunities in the labour market⁽¹⁵²⁾. Changing employment is also positively associated with exit chances from low-wage employment, and this indicates the existence of a link between job mobility and wage mobility. The third characteristic positively related with upward mobility from low-wages – working fewer hours – is in line with the evidence presented earlier that low-wage workers often tend to work longer hours in order to compensate for low hourly pay, so the reduction in hours could be the result of moving to a higher wage level rather than a cause.

On the other hand, having a low level of education, being a woman (see Box 2.5) or an older employee, or working more hours than in the previous year, are all associated with a lower likelihood of moving upwards

⁽¹⁵²⁾ When focusing on the whole wage distribution, highly educated individuals appear to be the most stable (section 4.2.2). However, among low-wage earners, the higher the educational level the better the chances of moving upward on the wage ladder.

from a low wage. As regards the gender effect, the career interruption linked to being a mother may explain why being a woman reduces the likelihood of escaping low-wages.

Chart 2.31: Characteristics connected with upward mobility from low wages (employees aged 20-64): results from logistic regression model



Note: Average marginal effects are shown in the Chart. The model also includes other household composition variables (not significant), having a part-time contract in t-1 (not significant), country fixed effects and year dummies. The full model is available upon request.

Source: DG EMPL calculations based on EU-SILC pooled panel data 2011, 2012 and 2013 (UDB)

[Click here to download chart.](#)

a job. By contrast, being a woman, old, having only low-level education and being widow/divorced or single are all associated with lower chances of escaping unemployment. Active labour market policies and active involvement of Public Employment Services in finding a job have a positive impact on transitions out of unemployment. Such findings underline the importance of active labour market policies for raising the employability of the unemployed and inactive, notably through education and training measures targeted at those individuals with serious skill deficits.

The findings also underline that as women have more career breaks and periods of inactivity compared with men, they face specific risks. These risks pose an important policy challenge, as households (and particularly single parent households) rely more and more on women's earnings. The promotion of work-life balance and the provision of childcare are important, both in tackling poverty and in enabling upward social mobility.

Annex: Further descriptive evidence

Table A.1: Percentages of low-wage earners among different groups of workers (employees aged 20-64), 2012

	% low-wage	Young 20-29		Prime age 30-54		Older 55-64		Educational level			Employment contract		Working time	
		men	women	men	women	men	women	low	medium	high	permanent	temporary	full-time	part-time
AT	17.4	25.7	23.6	9.4	23.1	7.7	18.0	32.6	17.5	8.7	16.1	30.6	13.9	28.6
BE	8.3	13.3	22.2	4.5	8.9	4.0	6.6	14.7	10.9	4.3	7.0	20.5	6.6	12.8
BG	11.7	10.8	10.0	7.1	15.0	15.2	14.9	27.9	12.6	3.6	10.5	25.5	11.2	30.5
CY	20.4	27.5	42.7	9.6	24.0	8.4	21.9	32.7	22.5	12.7	15.8	55.2	19.6	32.7
CZ	14.8	12.5	22.1	6.3	23.1	10.3	19.2	37.2	16.9	2.3	13.6	23.6	14.3	31.8
DK	3.3	11.0	11.5	1.2	3.2	1.7	4.1	7.2	4.1	1.3	4.6	13.9	2.9	4.9
EE	18.2	9.9	19.6	8.4	25.4	15.2	32.8	30.5	22.1	10.8	17.9	16.7	16.7	35.4
EL	15.9	29.9	28.7	11.6	15.8	6.2	27.8	26.4	18.5	7.9	9.8	30.4	13.4	32.6
ES	17.4	18.6	30.0	12.9	21.5	9.7	17.6	23.5	22.0	10.4	14.4	28.0	14.5	35.9
FI	5.9	8.7	14.7	2.8	6.7	2.3	5.4	11.1	8.5	2.4	8.9	16.7	5.4	10.6
FR	9.8	18.3	15.9	5.5	11.5	4.3	14.3	18.1	11.4	4.8	7.5	23.4	7.2	20.7
HR	14.1	15.9	16.4	11.3	18.3	6.3	7.2	28.6	15.8	2.9	12.9	21.6	14.1	16.8
HU	11.2	13.1	19.6	9.2	12.1	5.9	10.6	27.4	11.2	3.7	8.8	27.8	10.0	31.1
IE	25.3	48.8	41.0	18.3	24.1	23.9	28.3	40.6	36.8	13.1	23.4	32.6	16.3	44.7
IT	15.0	24.5	37.4	10.9	16.9	9.5	9.9	21.1	14.5	6.0	12.6	30.9	12.3	31.2
LT	24.2	23.6	33.3	19.2	27.6	23.3	20.8	38.2	31.8	13.1	24.4	18.1	23.1	45.3
LU	30.1	49.6	33.8	23.6	33.1	12.6	38.3	54.9	27.1	7.6	28.6	44.6	28.8	35.2
LV	20.5	15.4	22.8	16.9	23.6	16.1	27.0	33.8	27.2	6.6	20.0	27.8	18.8	48.9
MT	18.9	27.3	27.3	11.2	22.1	15.0	25.9	28.5	16.7	2.7	18.6	24.1	15.7	51.0
NL	8.8	19.0	14.3	5.6	8.9	3.9	11.5	17.0	10.0	4.1	14.5	24.7	7.4	10.8
PL	17.1	23.7	23.6	14.3	16.7	14.8	14.7	31.2	21.7	5.5	12.5	28.3	16.3	28.1
PT	11.9	16.4	17.5	7.7	13.6	6.7	18.4	15.1	8.6	4.2	10.4	16.3	11.0	25.8
RO	14.3	13.7	20.7	10.8	18.8	8.5	11.1	32.6	16.1	3.4	14.1	21.5	14.3	12.1
SE	7.3	14.4	26.9	3.9	7.4	2.2	4.0	9.2	8.0	6.1	8.3	37.3	5.9	12.7
SI	15.2	20.3	30.3	11.7	17.0	9.0	8.6	30.8	17.4	6.4	12.8	26.7	15.1	18.9
SK	14.5	13.4	19.2	8.9	18.7	12.7	18.0	39.0	17.0	4.6	13.5	22.0	13.9	33.2
UK	19.6	30.0	28.7	11.6	22.9	15.3	24.5	34.7	25.3	10.6	19.2	25.1	14.9	34.8
EU	15.2	20.6	24.2	10.2	17.8	10.0	17.1	27.6	17.5	6.3	14.1	26.4	13.5	28.0

Note: EU-SILC micro-data are not available for DE. Figures for RO refer to 2011. The sample includes only employees (aged 20-64). Self-employed, unemployed, and inactive people are not included. Low-wages are defined as two-thirds of the median hourly wage and are calculated by country and year.

Source: DG EMPL calculations based on EU-SILC panel data 2013 (UDB).

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Table A.2: Year-on-year transition matrix by wage deciles (employees aged 20-64)

		Destination - Wage decile in t										
		1st decile	2nd decile	3rd decile	4th decile	5th decile	6th decile	7th decile	8th decile	9th decile	10th decile	
Origin - Wage decile in t-1	1st decile	52.2	23.1	8.8	5.4	3.4	2.1	1.6	1.2	0.9	1.2	
	2nd decile	17.8	41.2	20.8	9.1	4.7	2.3	1.3	1.2	0.9	0.6	
	3rd decile	6.6	18.4	38.7	19.3	8.2	4.0	2.5	1.3	0.6	0.5	
	4th decile	3.6	7.1	17.9	37.1	19.0	8.3	3.8	1.4	1.1	0.9	
	5th decile	2.3	3.9	6.9	17.3	36.1	19.0	8.7	3.2	1.7	0.8	
	6th decile	2.1	2.2	3.4	6.2	16.9	36.5	20.1	7.8	3.2	1.6	
	7th decile	1.4	1.5	1.6	3.2	6.3	18.6	38.1	20.7	6.7	1.8	
	8th decile	1.5	0.7	1.0	1.6	2.7	6.4	18.6	42.9	20.2	4.3	
	9th decile	0.9	0.7	0.8	0.9	1.4	2.8	5.6	17.4	52.2	17.2	
	10th decile	1.5	1.4	0.5	0.7	0.8	1.3	2.1	4.3	15.2	72.3	
Total in t		8.5	9.7	9.9	10.1	10.0	10.3	10.5	10.4	10.5	10.2	
Summary statistics									29.7%			
									25.6%			
									44.7%			
									0.614			

Note: All EU countries shown together. Figures refer to year-on-year transition rates (2009-2010, 2010-2011 and 2011-2012) and includes only employees (aged 20-64) for whom data for two consecutive years is available. Self-employed, unemployed, and inactive people are not included. Hourly wage deciles are calculated by year and by Member State.

Source: DG EMPL calculations based on EU-SILC pooled panel data 2011, 2012 and 2013 (UDB).

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