

Labour mobility between the regions of the EU-27 and comparison with the US

*by Zuzana Gáková and Lewis Dijkstra**

* The authors work for the European Commission, DG Regional Policy, Unit C.3 – Quantitative and Economic Analysis, Additionality. Email: zuzana.gakova@ec.europa.eu, lewis.dijkstra@ec.europa.eu

1. INTRODUCTION

This paper compares the labour mobility between states in the US and the regions of the EU at NUTS 2 level, introducing for the first time the regional dimension into the analysis of the EU's labour mobility. The main focus of this paper is the EU's internal labour mobility, but it also looks at the destination of working age populations moving to the US and the EU and the reasons that make EU working age residents move.

There are number of differences between the US and the EU, including language, culture, labour legislation and the fact that the US is a federal state. Moreover, free movement of labour in the EU is only a recent phenomenon and does not apply equally to everyone. These make it difficult to compare labour mobility between the two.

The analysis shows, however, that given the share of the US working age population who change their residence every year, labour mobility plays an important role in reducing the differences in economic development between the states. In the EU, the tendency of the workers and people in general to move to another EU country or to another region of the same country, is much lower. This applies to both the old and the new Member States, irrespective of their economic development or the openness of their labour markets.

High labour mobility may lead to employment migrate to richer regions. This enhances the agglomeration effect and widens the disparities between regions. On the other side, labour mobility plays an important role in the adjustment process to There are two main views associated with the effects of labour mobility.

The general approach to labour mobility is that it plays an important role in the adjustment mechanism to divergent economic conditions between different regions, especially in the context of monetary union. Other, more recent views look at labour mobility as a possible source of divergence among regions where employment migrates from poorer to richer regions enhancing growth and productivity in the latter and depriving the poorer ones. Labour mobility in the EU as it stands now, however, is not sufficient to enforce the above scenarios.

In the context of the EU regions, the main contribution of an increased labour mobility would be in helping to reduce the rate of unemployment. Given the size of the gap between the rich and the poor regions - ten fold in some cases measured in terms of GDP/capita - an increased labour mobility would only have a very limited effect in reducing the disparities between regions.

2. THE BASIC DATA

Internal labour mobility concerns movements in the working age population (i.e. departures and arrivals) between regions within the EU. Because there are no EU wide data sources showing both arrivals and departures and because the next EU wide census will only be held in 2011, this paper is based on two alternative indicators, which capture the most important aspects of internal labour mobility.

The first indicator shows the share of working age population who have changed their region of residence within the last year. The data does not take into account seasonal work and education/training (unless they imply a change of residence), movement of workplace over shorter periods (daily commuting) and movement of workplace without a change in

permanent residence. Thus, the observed population group will be referred to in the text as *working age residents*.

The analysis presented in this paper is based on the average share of the working age residents in 2005-2006 who had changed their region of residence during the previous year. The two years were used to increase the sample size and thus the reliability of the figures. For readability's sake, this will be referred to in the text as *the working age residents who arrived in 2006*.

This indicator, however, has a major shortcoming, as it cannot show the share of the working age population that has departed, so it does not reveal whether a region with a high share of arrivals has a high or a low share of departures. This indicator also does not show where the people come from. The first bit of the missing information is addressed by the second indicator.

The second indicator - net migration - shows the difference between the number of people who arrived and left during a year. While not giving actual figures for how many people have left or arrived, it does show which regions overall attracted more people and which saw more people leave. This indicator, however, does not perfectly match the previous indicator in two respects: It covers the entire population, rather than just those of working age and it includes moves in and out of the EU, instead of just moves within the EU. Nevertheless, as most people who move are of working age and as three quarters of the people who move to a EU region come from another region within the EU, net migration is a good source of information to identify regions losing or gaining working age population from within the EU.

When the eight new Member States from Eastern Europe joined the EU in 2004, most of the old Member States, except the UK, Ireland and Sweden, imposed limits on labour mobility. The data therefore needs to be considered within these limits. Finland, Greece, Italy, Portugal and Spain removed their restrictions in 2006, but this is not yet fully reflected in the data. Also, the data refers to a period where Bulgaria and Romania have not yet joined.

3. LABOUR MOBILITY IN THE US AND THE EU

3.1. Internal labour mobility in the EU

The working age population who changed their region of residence accounted for 0.96% of the EU's total working age population (see Map 1). Yet, there are significant cross-country differences and a clear distinction between the EU-15 and the EU-12¹.

In the EU-15, the residential moves of the working age population represented 1.12% of the total working age population. The regions which attracted the highest number of working age residents were located in France (2.14%), namely Bretagne (4.97%), Basse Normandie (4.19%), followed by Midi-Pyrénées (3.17%), Limousin (2.58%) and Centre (2.26%). Germany (1.48%) ranged second with the region of Hamburg (2.92%) and Berlin (2.35%). The third country at the top was the UK with 1.46% of its working age

¹ Throughout this paper, EU-12 denotes those Member States that entered the EU in 2004 and 2007.

population coming from another EU region. The Greek Ionia Nisia (0.048%) was the region with the lowest inflow of working age population from other regions.

In the EU-12, the inflow of working age population coming from other regions was 0.34%, which is similar to the Southern European countries. It ranged from 0.07% in the Romanian Centru region to 1.65% in the Střední Čechy region of the Czech Republic. Overall, the 12 countries were a destination to only 7.34% of the working age population who moved to another EU region.

On average, more than 85% of the EU's internal labour mobility was due to movements between the regions of the same country. In other words, less than one in seven working age residents who moved between EU regions, actually came from another EU country. Therefore, the share of cross-border mobility of the working age residents in the EU was only 0.14% of the working age population.

3.2. Comparing labour mobility in the US and the EU

In the US, the share of working age residents who moved between states during the previous year (see Map 2) accounted for nearly 2%, in 2006. They were concentrated on the East coast and in the Western part of the country (except for California). The states with the highest share of working age residents from another US state were the District of Columbia (7.72%) followed by Nevada (4.43%), Alaska (4.39%), Wyoming (4.09%) and Hawaii (3.82%).

Table 1: Comparison between the EU and the US, 2005 - 2006

	US	EU27	EU15	EU12
Share of working age residents who moved from a different region of the EU/US state	1.98%	0.96%	1.12%	0.34%
Share of working age residents who moved from a different EU country/US state	1.98%	0.14%	0.15%	0.12%
Share of working age residents who moved from a different region of the same country/US state	1.98%	0.82%	0.97%	0.22%
Share of working age residents who moved from abroad	0.76%	0.30%	0.34%	0.16%

In the US, the average share of working age residents moving from another US state is 3.38% in the 'top ten percent states' (states accounting for 10% of the US working age population) and 1.08% in the 'bottom ten percent'. In the EU, few regions have a very high share of arrivals and many of them have very low shares. There are 23 regions with a share of arrivals higher than 2% but 113 regions with a share of less than 1% and 75 regions with a share of less than 0.5%. The EU's 'top ten percent regions' have an average share of arrivals equal to 2.54% while in the 'bottom ten percent regions' it is only 0.10%.

Thus, a striking difference between the US and the EU is the spatial concentration of the working age migrants who are much more dispersed in the US than in the EU.

As mentioned above, in the EU-27, only 0.14% of the working age population changed residence to another EU country. On the basis of these results, it certainly appears true that the geographic mobility of labour is much lower in the EU. However, such a comparison is problematic, because of a number of differences between the US and the EU. These include language, culture and labour legislation, the fact that the US is a federal state and that, in the EU, free movement is only a recent phenomenon and does not apply equally to everyone. It may therefore be more appropriate to compare internal mobility in the US to the mobility of working age residents not between, but within the EU countries².

Comparing the share of working age residents who moved to another region of the same country, 0.82% in the EU to 2% in the US, can somewhat reduce the gap in mobility between the two.

4. THE SOURCES AND THE REASONS FOR LABOUR MOBILITY

4.1. Which regions lost and which regions gained working age population?

The majority of regions with high share of working age residents coming from other regions of the EU had a positive net migration in 2005 (see Map 3).

Some regions in Northeast of France, in Central and Eastern Germany, in the sparsely populated regions of Finland and in the South of UK (including Inner and Outer London), that all had a share of working age residents coming from other EU regions above 1% of their working age population, however, demonstrate that a high share of working age residents from other regions is not always a guarantee for positive net migration.

Some regions in Spain, Portugal, Greece, North of Italy and Estonia, on the other side, had relatively low shares of arrivals from other EU regions but show up with positive net migration. This is due to a large growth in net inward migration from outside the EU that has taken place, mainly in Southern Europe, in the recent years.

By contrast, 71 regions experienced net inward migration of over 0.5%. Except for few regions in Spain, in northern Italy, some Greek islands, Burgenland and Niederösterreich in Austria and Luxembourg, all the others had a share of arrivals of working age residents from other regions above 1%.

4.2. Why do workers move?

Most of the regions with high net outward migration (less than -0.1% of population) and the lowest share of their working age residents moving from other EU regions (less than 0.3% of working age population) had above average (more than 8.6%) unemployment rates in 2006. This was mainly the case in the newer Member States but also in several

² This analysis excludes the EU Member States with only one NUTS 2 region.

Greek regions, in southern Italy, the Portuguese Alentejo region and the Spanish Principado de Asturias (see Map 4).

On the other hand, some of the receiving regions also had high unemployment rates. This was the case in the French regions of Picardie (11.2%), Bourgogne (9.5%), Languedoc-Roussillon (11.5%) and Provence-Alpes-Côte d'Azur (12.2%), in the Spanish region of Castilla-La Mancha (8.8%), in the Finnish Pohjois Suomi regions and in East Germany.

High unemployment rates are, thus, one of the main factors that cause people of working age to leave, but high inward migration of working age residents is not always linked to low unemployment rates.

The main receiving regions saw their level of employment grow substantially in the past five years (see Map 5). It was high (more than 0.8% a year) in most of Spain except for the north-western regions, in the south and northwest of France, in the UK, Ireland, Luxemburg, and in all the island regions, but also in Finland and the Baltic States. In the EU-12, only the capital regions had more dynamic performance in terms of employment creation. The Bulgarian regions show up with higher than 2% average annual increase; however, they display very low income levels.

As shown on the Map 6, the annual disposable income was very low (less than €10 000) in all the newer Member States, so wages clearly act as one of the main incentives for the working age residents to leave. However, the data on the disposable income does not take into account the cost of public services or the differences in the cost of living in the regions, which makes it more difficult to accurately measure the differences between regions.

The highest wages were earned in Austria, southern and western Germany, the UK, the southern region of Ireland, and the capital regions. However, not all of these have high shares of inward migration. Despite lower income levels in the three Cohesion Countries, they experienced the largest net inward migration in the EU in the period concerned. These phenomena can partly be explained by the fact that Austria and Germany did not fully open their labour markets towards the new Member States, but imposed lengthy transition periods, with some exceptions for highly skilled labour from the higher earning groups. Also, the southern European countries are mainly targeted by low skilled workers with lower incomes.

Table 2 summarizes the above findings for the NUTS 2 regions accounting for 10 % of the working age population with the highest/lowest share of arrivals.

Table 2: Summary table for the top/bottom NUTS 2 regions accounting for 10% of the working age population with the highest/lowest share of arrivals

	Top ten	Bottom ten
Share of EU working age residents who arrived from other EU regions in 2006	2.54%	0.10%
Net migration, 2005	0.28%	0.17%

Unemployment rate, 2006	8.52%	8.57%
Annual disposable income, 2005	€16 157	€11 133
Employment growth, 2000-05	1.10%	0.59%

5. DESTINATIONS OF THE WORKING AGE POPULATION COMING FROM OUTSIDE THE US AND THE EU

The working age residents coming from non-EU countries contributed 0.30% to the EU's total working age population in 2006 (see Map 7). Thus, despite ongoing liberalisation of the EU's labour market for its citizens, the share of working age residents arriving from outside the EU is twice as high as the share of the cross-border moves of the working age residents with EU citizenship. The share of the working age residents from non-EU countries is more than twice as high in the EU-15 as in the EU-12.

In contrast to the EU's internal labour mobility, the preferred destinations of the non-EU working age population who changed their residence are islands and the tourist regions, mainly along the Alps. Cyprus ranks the highest with a share of 2.87% of its working age population, followed by the Spanish Balears Islands (0.91%) and the Canarias Islands (0.50%). In fact, the whole of Spain displays above average values and it is the country with the highest share (0.64%) of non-EU working age residents who arrived in 2006, together with Luxemburg and Lithuania, which have traditionally high shares of working age residents born outside the EU.

Inflows were also high in Austria, mainly in Tirol and Vorarlberg, in Paris, the French Alpine regions and the Midi-Pyrénées, and in the South German regions of Bavaria. Therefore, the fourth most attractive country for the non-EU working age residents is Austria (0.56%), followed by France (0.47%), Denmark (0.47%) and Germany (0.42%).

In the US, the working age residents arriving from outside the US in 2006 accounted for 0.76% of the working age population (see Map 8). In 2006, California attracted the highest number of working age residents, followed by Texas, Florida and New York.

6. CONCLUSIONS

The analysis has shown that the share of working age residents who arrived in 2006 to another EU region represented less than 1% of the EU's working age population. The regions in the EU-15 had a share three times higher than the EU-12 and this share was higher in the north than in the south. More than 85% of the movements were going on between the regions of the same country. It implied a very low rate of cross-border labour mobility accounting for only 0.14% of the EU's working age population.

In the US, the share of the working age population who moved to another state amounted to 2%. Due to a number of differences between the US and the EU, it appears more appropriate

to compare mobility of the working age residents not between, but within the EU countries (0.82%) to internal mobility in the US (2%).

The top regions of the EU had a share of arrivals 2.54%, while in the bottom regions, it was only 0.10%, compared to 3.38% and 1.08% in the top and the bottom states of the US. So, a striking difference between the US and the EU was the great dispersion of people moving between the US states compared to EU regions.

The share of the non-EU working age residents who arrived in 2006 was 0.30% of the EU's working age population; three times lower than in the US. Thus, despite all efforts towards the liberalisation of the EU's labour market for its nationals, it is 50% more likely that a non-EU national arrives to work in an EU country than an EU national moving for work to another EU country. The working age residents coming from abroad chose different destinations from those who come from the EU or the US.

The analysis has also shown that the main incentives for people of working age to leave their regions are high unemployment rates and low wages, compared to the rest of the EU. In the receiving regions, working age residents are driven mainly by new employment opportunities.

Labour mobility is one of the aspects of labour market flexibility, which is important for a number of reasons. Besides adjustment to the changes in demand, the adaptation to new technologies and to other changes induced by the globalisation, flexible labour markets play an important role also in providing macroeconomic adjustment where exchange rates and monetary policy can not be used, e.g. in a single currency area. In addition, the issue of labour market flexibility is strongly linked with demographic factors, as estimates suggest that the labour force in the EU will contract significantly, which will have serious consequences for the ratio of workers to pensioners.

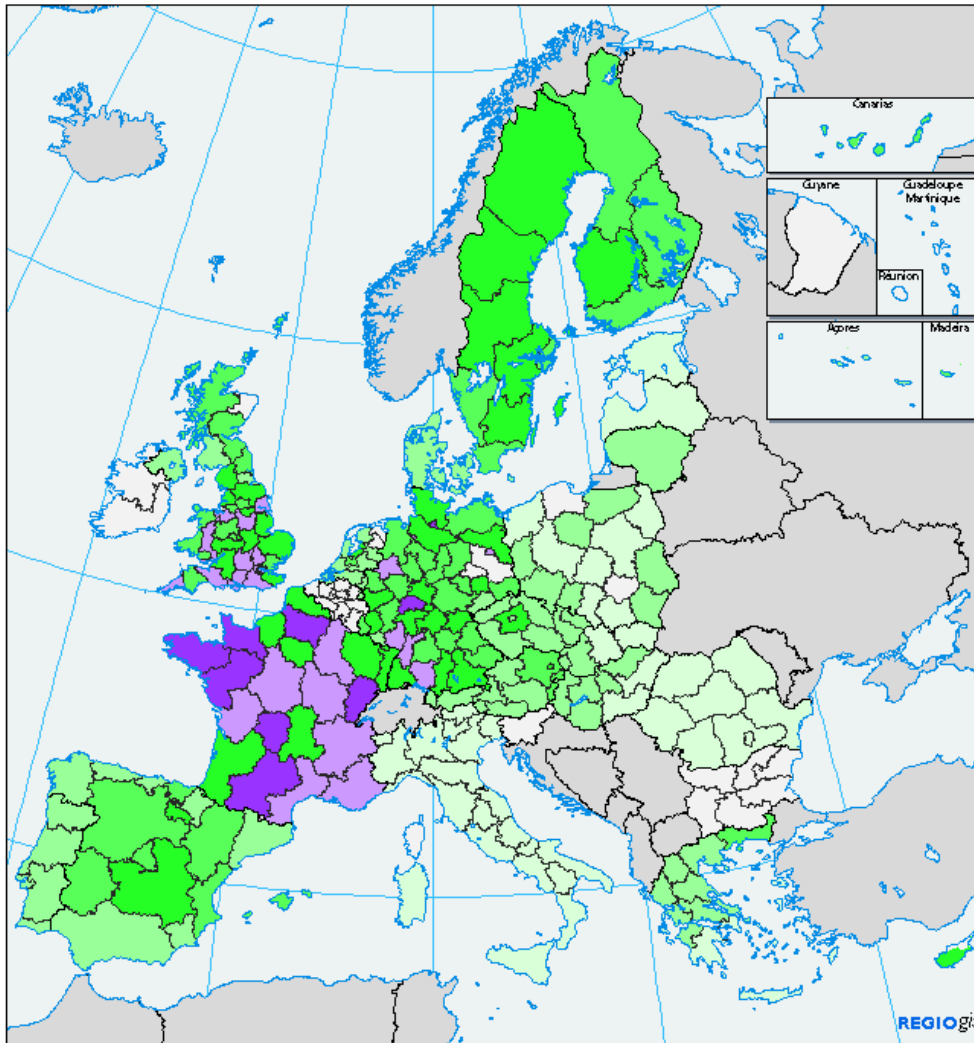
Labour migration is a politically sensitive topic with a wide range of concerns both for receiving and sending regions. In receiving regions an influx of workers may lead to reduced income for low skill jobs, displacement of local workers and/or an increase of the costs of social and welfare services. For sending regions, the main concern is the permanent loss of high skilled and more dynamic residents, which reduce their growth potential.

However, empirical evidence has shown that migrants frequently move for short-term periods; many of them on a regular, often seasonal, basis, as migration is not usually regarded as a once-for-all decision, but rather as part of a long-term adjustment process, where people respond to longer-run expectations in both markets, and in which migrants choose to work for a limited period in another market acquiring skills and improving their own and their families lives through remittances in the home country.

The general approach to labour mobility is that it plays an important role in the adjustment mechanism to divergent economic conditions between different regions, especially in the context of monetary union. Other, more recent views look at labour mobility as a possible source of divergence among regions where employment migrates from poorer to richer regions enhancing growth and productivity in the latter and depriving the poorer ones. Labour mobility in the EU as it stands now, however, is not sufficient to enforce the above scenarios.

In the context of the EU regions, the main contribution of an increased labour mobility would be in helping to reduce the rate of unemployment. Given the size of the gap between the rich and the poor regions - ten fold in some cases measured in terms of GDP/capita - an increased

labour mobility would only have a very limited effect in reducing the disparities between regions.



Map 1: Share of working age residents who moved from a different EU region within the last year, 2005-2006



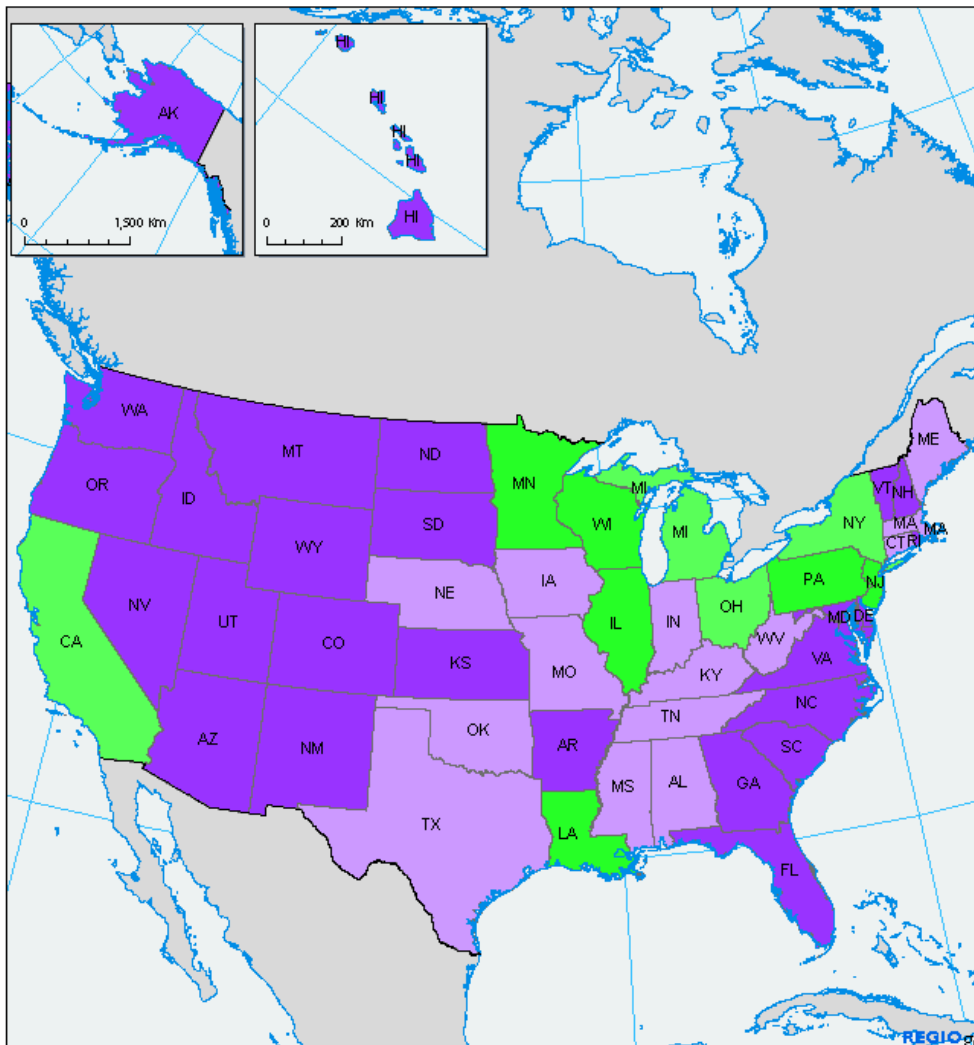
EU27 average: 0.96

Arrivals from another NUTS2 region of the same country and from another EU country

Source: Eurostat



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Map 2: Share of working age residents who moved from a different US state within the last year, 2006

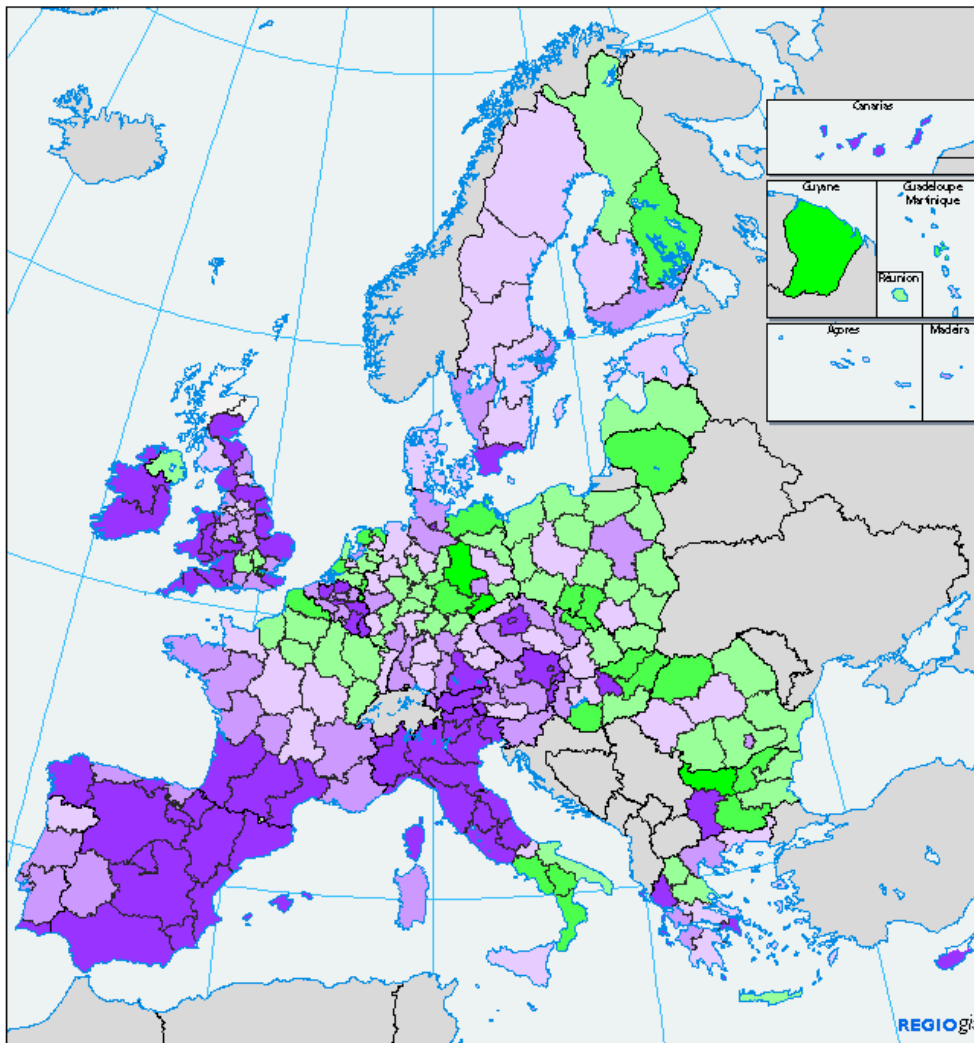
% of working age population

- < 0.30
- 0.30 - 0.80
- 0.80 - 1.30
- 1.30 - 1.80
- 1.80 - 2.30
- ≥ 2.30

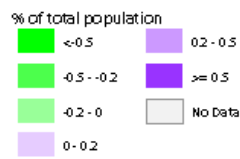
US average: 1.98

Source: US Census Bureau





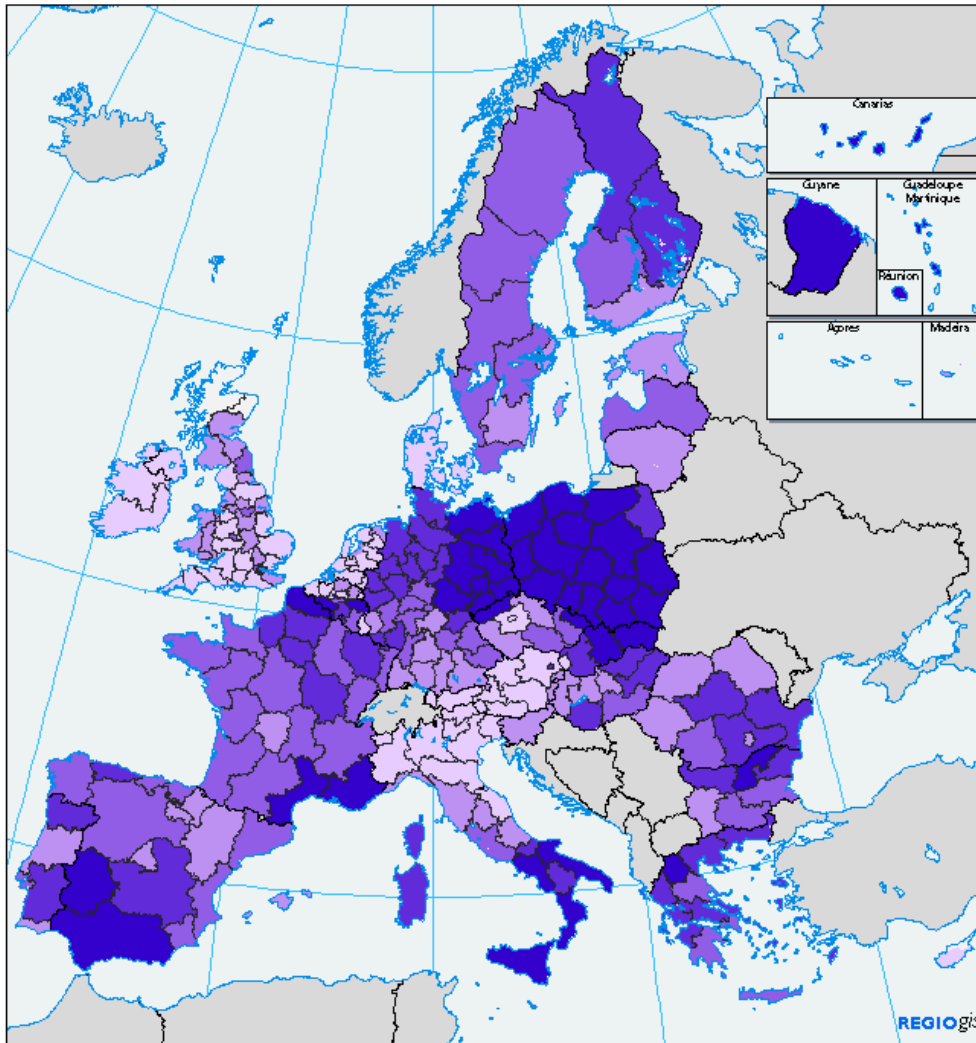
Map 3: Net migration, 2005



Source: Eurostat

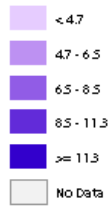


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Map 4: Unemployment rate, 2006

% of labour force

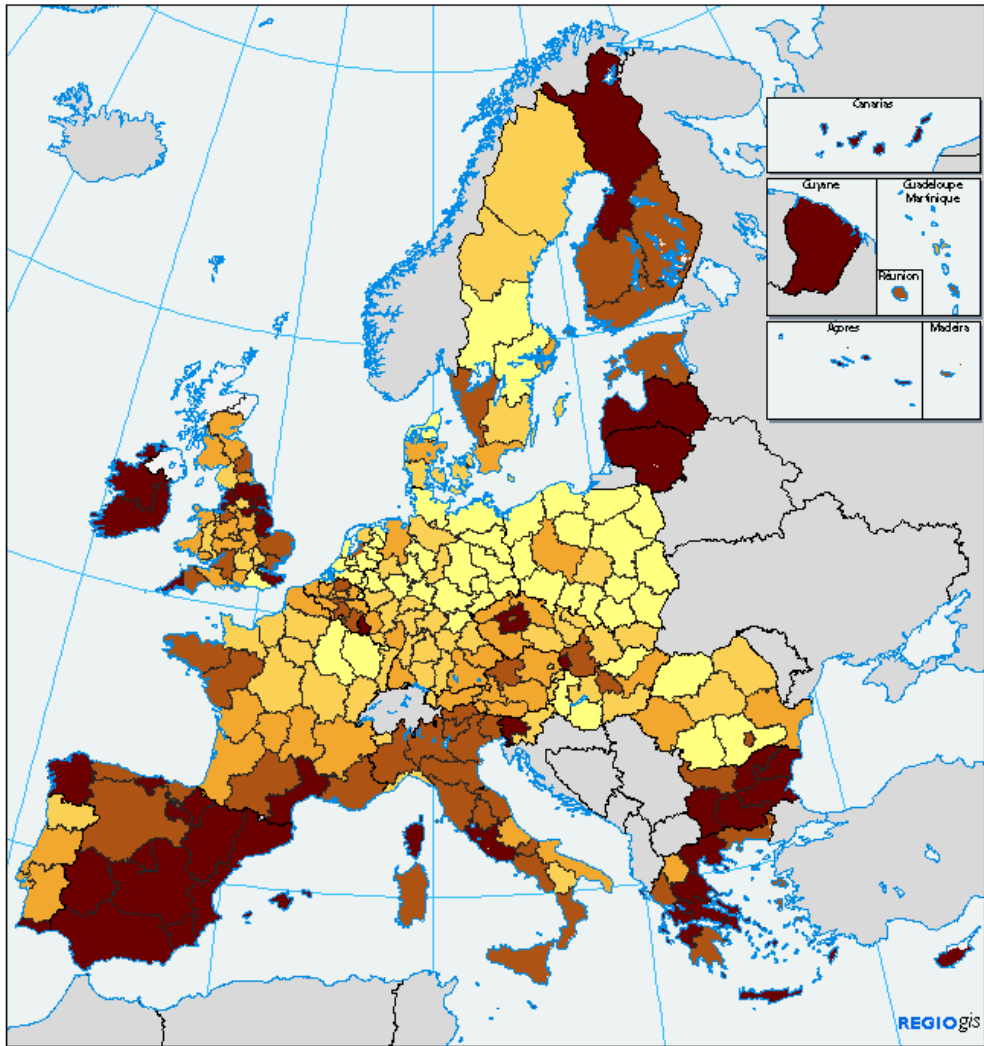


EU-27 = 8.2

Source: Eurostat

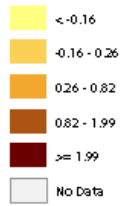


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Map 5: Employment growth, 2000 - 2005

% annual change



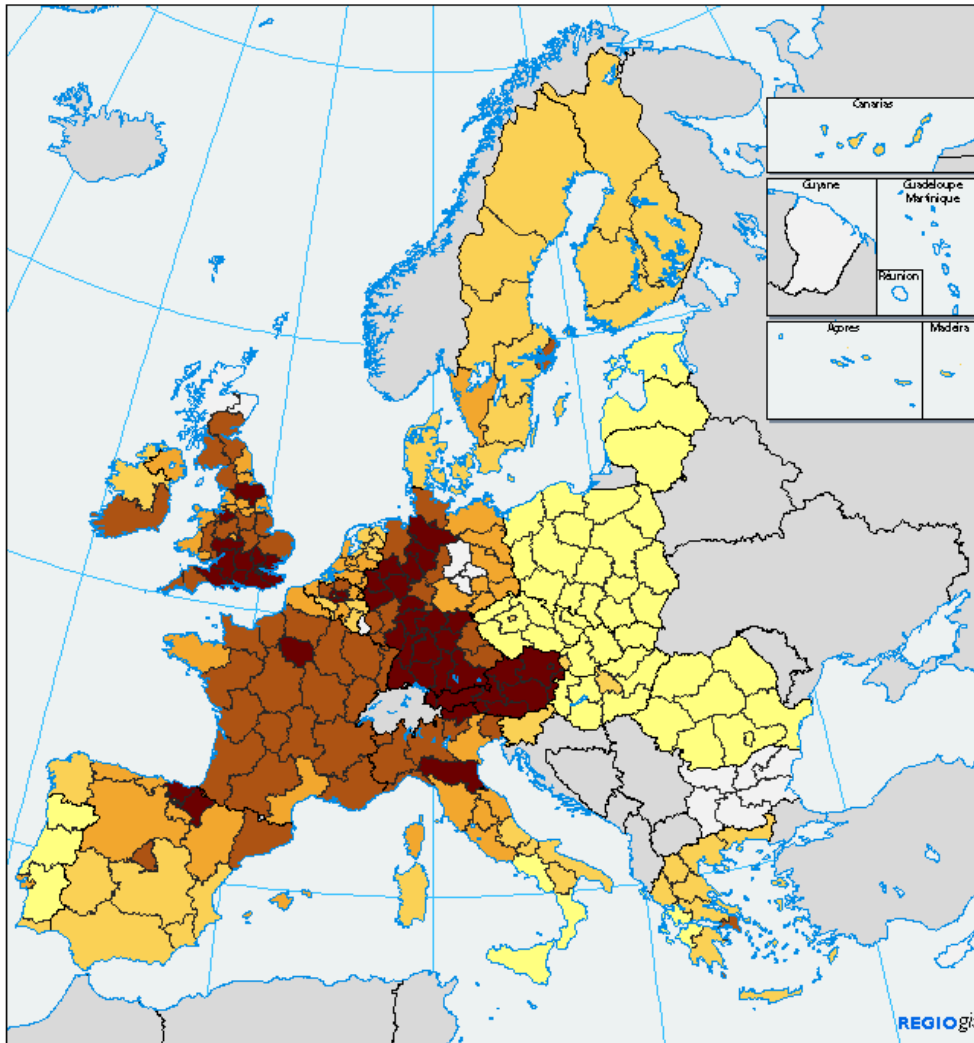
Excluding the sector of agriculture

UK: all sectors

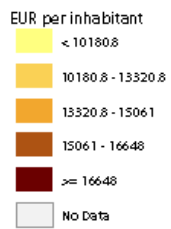
Source: Eurostat



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Map 6: Disposable income of households, 2005



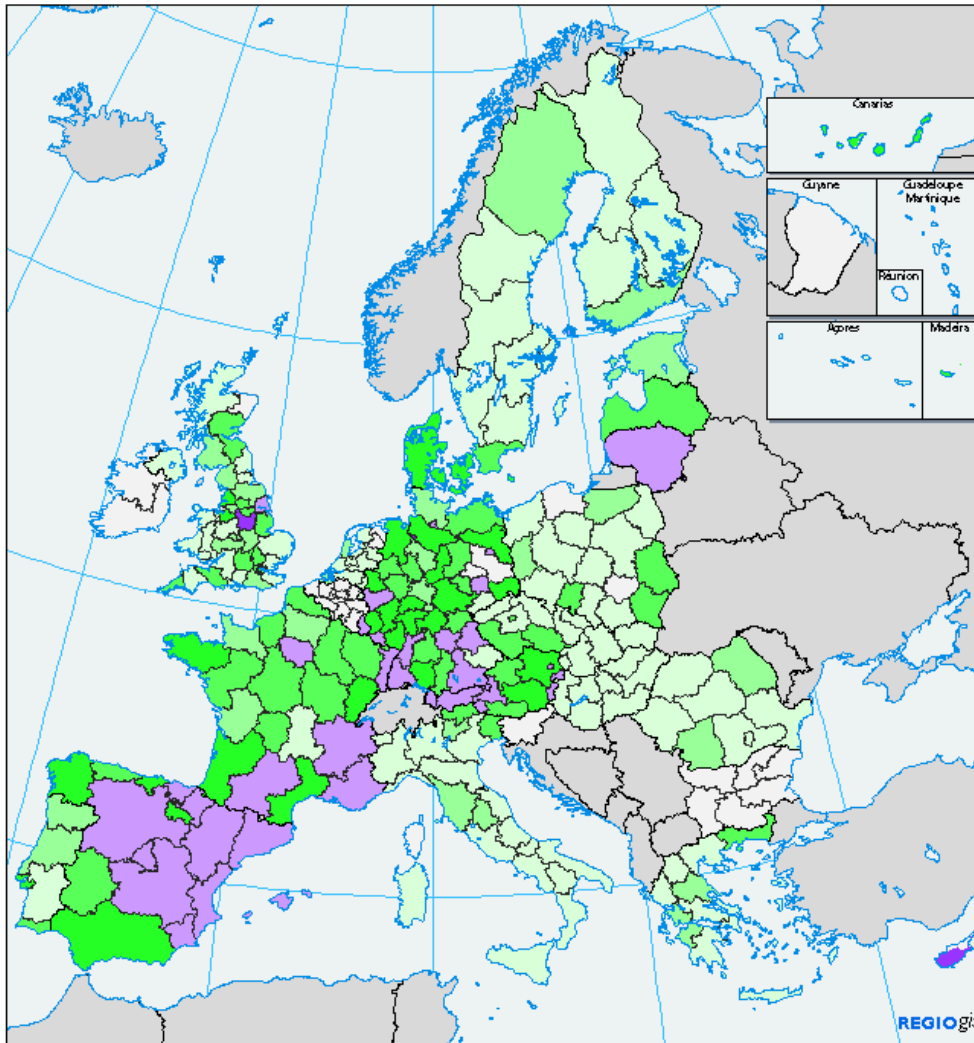
EU-27 average: 13,300,50 EUR

Purchasing Power Standard based on final consumption per inhabitant

Source: Eurostat



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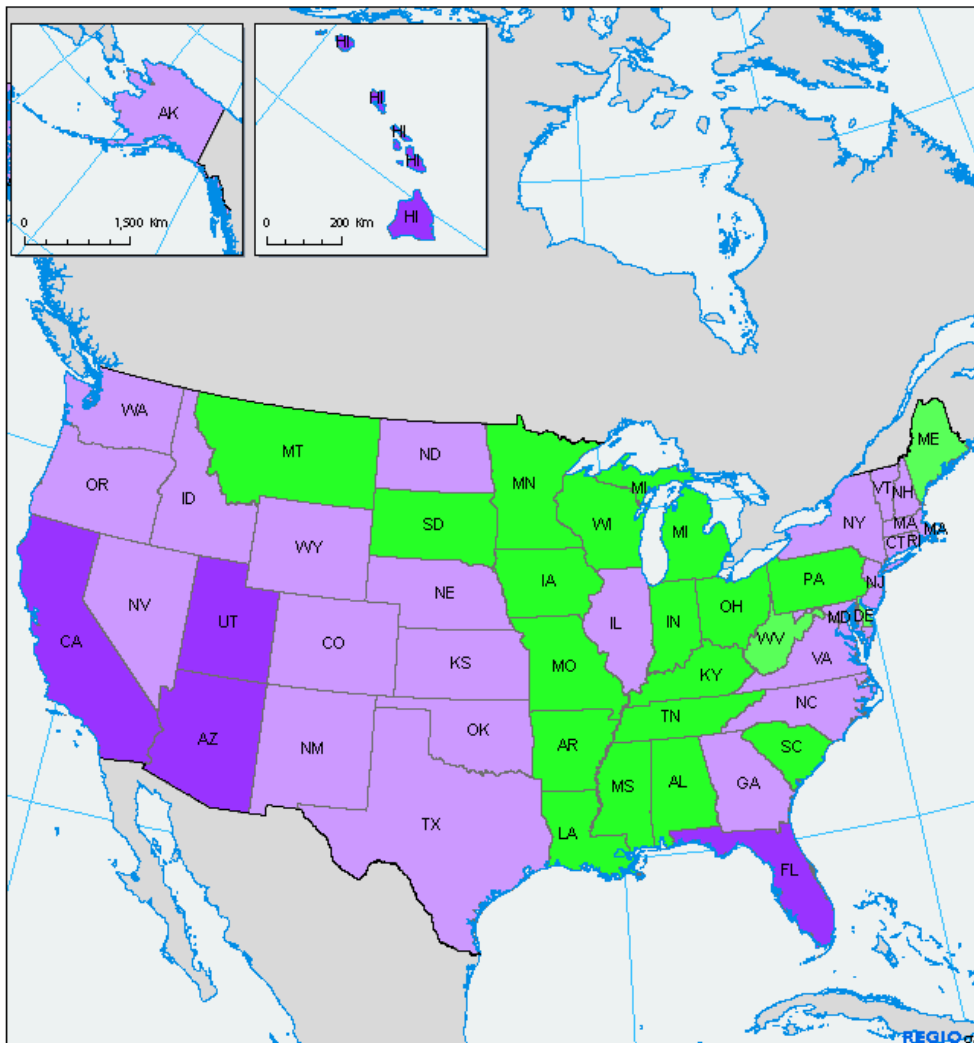
Map 7: Share of working age population who moved from outside the EU within the last year, 2005 - 2006



EU27 average: 0.30
Source: Eurostat



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Map 8: Share of working age residents who moved from outside the US within the last year, 2006

% of working age population

- < 0.15
- 0.15 - 0.20
- 0.20 - 0.35
- 0.35 - 0.50
- 0.50 - 1.00
- ≥ 1.00

US average: 0.70

Source: US Census Bureau

0 1,000 km