Definitions of territorial units

The various territorial units that are presented within Urban Europe — statistics on cities, towns and suburbs are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

Living in cities

The first half of this online publication looked at cities from a morphological perspective, in other words looking at the spatial structure, transformation and characteristics of urban developments. This second part concentrates on the people who are born, live and work in cities. It begins with a broad description of life in cities and subsequently focuses on:

- working lives (Chapter 9);
- the housing situation for those living in cities (Chapter 10);
- foreign-born persons in cities (Chapter 11);
- poverty and social exclusion in cities (Chapter 12);
- satisfaction and the quality of life in cities (Chapter 13).

The attractiveness of cities has already been referred to in relation to the branding/appeal of cities for (potential) business investment or their overall competitiveness. Cities also need to attract individuals: this can be done, among other ways, through the quality of what they can offer in terms of education, jobs, social experiences, culture, sports and leisure facilities, environment, or urban safety.

Population density

Cities offer considerable potential for energy and environmental savings, as densely populated urban areas allow for more energy-efficient forms of housing, transport and service provision — see Chapter 6 for more information on 'green cities'. In order for such savings to be made, urban developments need to remain compact, rather than being characterised by urban sprawl.

The most densely populated parts of the EU were found in the suburbs of Barcelona, across a number of Parisian arrondissements and in Inner London

The compactness of urban developments can be measured using population density, which is expressed as
the number of inhabitants per square kilometre (km²). Figure 1 shows results for the most densely populated places in the European Union (EU), according to a range of different territorial units.

At the most detailed level, based on a 1 km² population grid covering the whole of the EU-28, the highest level of population density was recorded in the south-western suburbs of Barcelona, within L'Hospitalet de Llobregat (where 53,119 persons lived in a single square kilometre in 2011). The second highest ratio (52,218 inhabitants/km²) was recorded within the 18th arrondissement in Paris, not far from the Basilica of Sacré Coeur, while the third highest ratio (50,287 inhabitants/km²) was also located in the suburbs of Barcelona, this time to the north-east, within Badalona.

Figure 1 also shows the most densely populated local administrative units (LAU2) in 2014. This ranking was dominated by the arrondissements of the French capital, with the highest number of inhabitants per km² recorded in the 11th and 20th arrondissements to the east, and the 18th arrondissement to the north. These figures were supported by an analysis at a more aggregated level, as Paris was confirmed as the most densely populated NUTS level 3 region in the EU-28, with an average of 21,264 inhabitants/km² in 2013. The second and third highest density ratios, for NUTS level 3 regions, were recorded in the EU’s only other megacity (defined here as a city with in excess of 10 million inhabitants), namely the east and west of Inner London in the United Kingdom, where each inhabitant had, on average, approximately twice as much space as in Paris.

![Map of Barcelona and Paris showing the most densely populated areas.](http://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/population-distribution-demography)

The densely populated northern parts of Paris were more than four times as crowded as several parts of the city running along the banks of the river Seine.
Table 1 presents the three local administrative units with the highest levels of population density for each of the EU Member States; it shows significant differences both across EU Member States and within the same Member State. For example, the most densely populated local administrative unit in France was the 11th arrondissement of Paris (42 138 inhabitants/km$^2$ in 2014), where population density was more than 40 times as high as in the most densely populated part of Slovenia, the capital of Ljubljana (1 044 inhabitants/km$^2$ in 2015).

Table 1: Population density in local administrative units (LAU2), 2015 (inhabitants/km$^2$)

<table>
<thead>
<tr>
<th>No.</th>
<th>Highest</th>
<th>Second highest</th>
<th>Third highest</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Berlin-Bezirk Charlottenburg, Berlin</td>
<td>Berlin-Bezirk Charlottenburg, Berlin</td>
<td>Berlin-Bezirk Charlottenburg, Berlin</td>
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<tr>
<td>2</td>
<td>Sofia</td>
<td>Sofia</td>
<td>Sofia</td>
</tr>
<tr>
<td>3</td>
<td>Tallinn</td>
<td>Tallinn</td>
<td>Tallinn</td>
</tr>
<tr>
<td>4</td>
<td>Prague 1</td>
<td>Prague 1</td>
<td>Prague 1</td>
</tr>
<tr>
<td>5</td>
<td>Munich, urban districts</td>
<td>Munich, urban districts</td>
<td>Munich, urban districts</td>
</tr>
<tr>
<td>6</td>
<td>Copenhagen-Central</td>
<td>Copenhagen-Central</td>
<td>Copenhagen-Central</td>
</tr>
<tr>
<td>7</td>
<td>Luxembourg-City</td>
<td>Luxembourg-City</td>
<td>Luxembourg-City</td>
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<tr>
<td>8</td>
<td>Sofia</td>
<td>Sofia</td>
<td>Sofia</td>
</tr>
<tr>
<td>9</td>
<td>Munich, urban districts</td>
<td>Munich, urban districts</td>
<td>Munich, urban districts</td>
</tr>
<tr>
<td>10</td>
<td>Copenhagen-Central</td>
<td>Copenhagen-Central</td>
<td>Copenhagen-Central</td>
</tr>
</tbody>
</table>

In a majority of the EU Member States, the highest level of population density, by local administrative unit, was recorded in (part of) the capital city. There were however a number of exceptions, with higher population density ratios recorded in Plovdiv (Bulgaria), München Landeshauptstadt (Germany), Emperador in the northern suburbs of Valencia (Spain), Rijeka (Croatia), Casavatore in the northern suburbs of Napoli (Italy), Esch-sur-Alzette (Luxembourg), ’s-Gravenhage (the Netherlands), Legionowo to the north of Warszawa (Poland), and Košice (Slovakia).

Subcity data show that there were sizeable differences in the average space per inhabitant within the same city. For example, population density in Popincourt, the 11th arrondissement Paris (to the north and east of the Place de la Bastille), was almost twice as high as the average for the whole of the city, and was at least four times as high as in four arrondissements running along the right bank of the river Seine, from the 12th (Reuilly) in the east, through the 1st (Louvre) and the 8th (Élysée) in the centre of the city, to one of the most affluent, residential parts of the city in the west, the 16th (Passy).
Map 1: Population density in the arrondissements of Paris, 2014 (inhabitants/km$^2$)

Some industrial metropolitan regions had higher levels of population density than their capitals

Although city centres are often characterised by relatively high levels of population density, it is common to find lower density ratios when moving towards the suburbs, as houses start to replace flats and apartments as the most common type of dwelling. The information presented in Figure 2 is for the 30 metropolitan regions with the highest levels of population density. Note that the indicator has been reversed to show the average land area available in square metres (m$^2$) for each inhabitant and that the statistics shown do not relate to living space in households (presented in Chapter 10), but rather the average space available per inhabitant in relation to the total area of each metropolitan region, therefore including the space required, among others, for businesses, public and green spaces, or infrastructure.

Using this measure, the most confined living spaces were experienced by those living in three coastal metropolitan regions on the south coast of England — Portsmouth, Southampton, and Brighton and Hove. In keeping with the results for Barcelona, it is perhaps not surprising that relatively high levels of population density are recorded in coastal towns and cities, given that they have a natural barrier — the sea — that prevents them from expanding on one side, thereby concentrating pressures for urban development.

Otherwise, most of the remaining metropolitan regions with low amounts of space per inhabitant could be characterised as industrial cities/agglomerations, for example, Wuppertal and the Ruhrgebiet (in Germany), Porto (Portugal), or the West Midlands, Liverpool and Sheffield (in the United Kingdom). Each of these regions was more densely populated than the metropolitan region of their capital city, suggesting that lower density urban sprawl was more prevalent around their capital cities. There were a number of other EU Member States where the metropolitan region of the capital city did not record the lowest average amount of space per inhabitant, as this was also the case for: Antwerpen (which had the highest population density in Belgium), Ostrava (the Czech Republic), Napoli (Italy), ’s Gravenhage (the Netherlands) and Katowice (Poland).
Much has been written about Europe's demographic crisis, its low fertility rates and rapidly ageing populations. While this pattern is observed across most of the EU, there are contrasting patterns in some European urban areas, where population growth remains relatively rapid and where young people account for a relatively high share of the total number of inhabitants. This may be linked to young people moving to urban areas for education or work, while in contrast the elderly are more likely to leave big cities and retire to the countryside or more provincial towns.

Figure 3 is based on the 30 largest cities in the EU: it provides an analysis of population structure for young people (aged less than 15), the studying and working-age population (defined here as those aged 15–64 years) and the elderly (65 years and more). To some degree, the results shown reflect national demographic patterns, with low fertility rates in many southern and eastern EU Member States, as well as Germany. Many of the largest cities in southern Europe were characterised by a high proportion of elderly persons: this was particularly the case in the Spanish and Portuguese capitals of Madrid and Lisboa, and the two largest Italian cities of Milano and Roma, with, at the start of 2014, more than one in five inhabitants in each of these four cities aged 65 years or more.

Fertility rates and population growth tended to be higher in northern and western Europe, thereby diminishing the relative share of the elderly in the total population. Among the 30 largest cities in the EU, the four with the lowest shares of elderly persons in their total number of inhabitants were Lille (France), Bruxelles/Brussel (Belgium), London (the United Kingdom) and Dublin (Ireland).
There were relatively large numbers of young people living in cities within close proximity of the capital.

Figure 4 shows the structure of the population in those cities with the highest proportions of young people — the top ranking city is shown for each of the EU Member States, Norway and Switzerland. At the start of 2012, just over one in four (25.2%) inhabitants living in the Communauté d’agglomération Val de France, a city close to Paris, was aged less than 15. Young people accounted for 23.7% of the total population of Slough, to the west of London (start of 2014) and also accounted for more than one in five inhabitants in the Dutch city of Almere (start of 2013), a new city that has been built since the 1970s on reclaimed land to accommodate population overspill from Amsterdam. All three of these cities were characterised, to some degree, by relatively cheap housing, a high degree of ethnic diversity, and close proximity to their capital city.
The elderly who were living in cities had a higher propensity to live in relatively small cities often on the coast.

Overall, it is clear that the number of elderly people has increased in a majority of European cities, as a result of population ageing; these patterns are broadly consistent with increases recorded nationally. In some EU Member States, for example, Germany and Italy, demographic ageing is a process which has long been a reality of urban life.

Figure 5 provides information on the city with the highest proportion of elderly persons in each of the EU Member States. These were often relatively small cities, located on the coast: for example, almost 30% of the population in Fréjus and Sanremo — on the Mediterranean coastline in neighbouring France and Italy — were aged 65 years or over. A similar pattern was observed in several other EU Member States, with a high proportion of elderly persons living in Oostende on the Belgian North Sea coast, Waveney on the East Anglian coastline (the United Kingdom), and Ferrol on the Galician coastline (Spain). This pattern may, at least in part, be attributed to elderly persons choosing to retire to coastal locations which they perceive as offering a better quality of life and/or a more favourable climate.
Figure 5: Population structure for selected cities with relatively high shares of elderly people, 1 January 2014 (1)(%)Source: Eurostat (urb_cpopstr) and (demo_pjanbroad)

Returning to the example of Paris, an analysis of subcity data shows considerable variations in the population structures of different arrondissements. In 2012, the elderly accounted for a high proportion of the total number of inhabitants in the relatively affluent 6th (Luxembourg), 7th (Palais-Bourbon) and 16th (Passy) arrondissements, while young people accounted for a relatively high share of the total population in the northern arrondissements of the 17th (Batignolles-Monceau), the 18th (Butte-Montmartre), the 19th (Buttes-Chaumont) and the 10th (Entrepôt).

Figure 6: Population structure in the arrondissements of Paris, 2012(%)Source: Insee, RP2012 exploitation principale and Eurostat (demo_r_pjanaggr3)

There was a difference of 8.8 years between the median ages of those living in Berlin and those in Paris.

The median age provides an alternative means of analysing the age distribution of a population. Recent
demographic changes — lower fertility rates and increased life expectancy — have resulted in the median age rising in all of the EU Member States. Table 2 provides an example for the five German and French functional urban areas (cities and their commuting zones) with the highest/lowest median ages; Germany (2014 data) is an example of a Member State that has already experienced considerable population ageing, whereas a higher fertility rate means there is a somewhat younger population in France (2012 data). In both cases, the median age of the capital city was below the national average, although in the case of Berlin (44.8 years) the difference was small (0.8 years). On the other hand, the median age in Paris (36.0 years) was four years below the French national average.

In Germany, the lowest median ages were often recorded in Nordrhein-Westfalen — for example, Münster, Paderborn or Bielefeld, although the third lowest median age was registered in the Bavarian city of München and the lowest in the university town of Tübingen (Baden-Württemberg); the functional urban areas with the highest median ages were all in the east of Germany, peaking at 50.1 years in Gera and Dessau-Roßlau.

The lowest median ages in France were recorded either in or around the capital — Paris, Melun, Creil and Saint Denis — or in a number of other relatively large urban areas, such as Lille, Lyon or Rennes. By contrast, many of the urban areas with the highest median ages were located in south-west France — for example, Albi, Bayonne, Béziers, Brive-la-Gaillarde, or Tarbes. The highest median age (48.0 years) among functional urban areas in France was recorded in the Mediterranean resort of Fréjus — already mentioned above for having the highest share of elderly persons in the EU.

Table 2: Median population age, selected functional urban areas in Germany and France, 2012 and 2014 (1)Source: Eurostat (urb_lpopstr)

<table>
<thead>
<tr>
<th>Births and deaths</th>
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<tr>
<td>There are two parameters which affect population dynamics: natural population change (the difference between births and deaths) and net migration; more information in relation to foreign-born persons living in cities is presented in Chapter 11.</td>
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An analysis based on the urban–rural typology shows that the share of live births in predominantly urban regions was systematically higher than the share of the total population living in these regions; in other words, people living in predominantly urban regions were more likely to have children. This pattern was repeated in every one of the EU Member States for which 2013 data are available, and was particularly pronounced for those living in the predominantly urban regions of Denmark, Estonia, France, Portugal, Latvia and Sweden. On the other hand, in Turkey it was those living in predominantly rural regions that were more likely to have children.
One reason for a fall in fertility rates has been a decision to delay parenthood: across the whole of the EU-28, mothers aged 35 or more accounted for 22.5% of all live births in 2013. Figure 8 shows the NUTS level 3 region with the highest proportion of live births born to mothers aged 35 or more and contrasts this with the national average for each EU Member State. In a majority of the EU Member States, the decision to delay parenthood was most often taken by those living in capital city regions, suggesting that some family units in capital city regions were more prone to concentrate on establishing a career before they considered starting a family. This pattern was particularly evident in Paris and Inner London – West, where the proportion of live births accounted for by women aged 35 and more was 13.2 and 16.4 percentage points higher than the national average.

This pattern of delayed parenthood was also prevalent in the southern EU Member States, particularly in Spain and Italy, where mothers aged 35 or more accounted for more than one third of all live births. Their share rose considerably higher in the northern Basque region of Vizcaya (whose capital is Bilbao), with 43.5% of all live births born to mothers aged 35 or more; the same share was recorded in the western Sardinian region of Oristano (although this is an intermediate not a predominantly urban region).
Dublin was the city in the EU with the highest crude birth rate

The crude birth rate for the EU-28 was 10.4 live births per 1 000 inhabitants in 2012, while the infant mortality rate was 3.7 per 1 000 live births in 2013. Figures 9 and 10 provide information for these two indicators, with an analysis of the highest/lowest rates among functional urban areas; note that the national average could be above/below the values shown for functional urban areas, as it takes account of intermediate and rural regions too.

The functional urban areas with the highest crude birth rates in 2011 were Dublin and Saint Denis, while Oulu (the most populous city in northern Finland) also recorded a relatively high crude birth rate in 2014. With the exception of Dublin, the crude birth rate for each of these functional urban areas was considerably higher than their respective national average.
In 2013, there was often a wide variation in infant mortality rates between functional urban areas in the same EU Member State: this was particularly true for Bulgaria, Romania (2014 data), Poland, the Netherlands and Germany. For example, the infant mortality rate in the urban areas of Bulgaria ranged from 4.0 per 1 000 live births in Varna (on the Black Sea coast) to 20.2 per 1 000 live births in Veliko Tarnovo (in the north).

Several functional urban areas with high infant mortality rates were characterised by their local economies being characterised by relatively high levels of poverty/deprivation — for example, Cádiz (Spain), Fort-de-France (Martinique, France), Messina (Sicily, Italy), Daugavpils (Latvia), Miskolc (Hungary) or Blackpool (the United Kingdom).
Figure 10: Infant mortality rates, national averages and selected functional urban areas, 2013 (1)(per 1 000 live births)Source: Eurostat (urb_1fermor)

More than 7 out of 10 deaths in the densely populated Netherlands and United Kingdom took place in predominantly urban regions

Figure 11 shows that the share of people living in predominantly urban regions was generally higher than the corresponding proportion of deaths, reflecting the age structure of people living in cities and their better access to healthcare services (when compared with people living in intermediate or predominantly rural regions).

This pattern was particularly pronounced in Estonia, Finland, France, Portugal, Sweden and Spain and was repeated in all but two of the EU Member States for which 2013 data are available, the exceptions being Poland (where there was a higher proportion of deaths in predominantly urban regions) and Slovakia (where there was no difference between the shares).
Two of the most common causes of death in the EU are heart disease and respiratory illnesses. Figure 12 presents information on the share of the population aged less than 65 who died from these ailments; in 2011, heart disease and respiratory illnesses together accounted for just over one quarter (26.3%) of all deaths in the EU-28 among those aged less than 65. In Latvia and Bulgaria, far higher shares (61.2% and 49.8%) of the total number of deaths among those aged less than 65 could be attributed to heart disease or respiratory illnesses; this was particularly the case in the functional urban areas of Daugavpils (south-east Latvia, 61.3%) and Vidin (north-west Bulgaria, 63.8%).

Comparing the functional urban areas with the highest infant mortality rates and the highest shares of deaths among those aged less than 65 from heart disease or respiratory illnesses, there were six EU Member States where the same area recorded the highest rates/shares: Tartu (Estonia), Kalamata (Greece), Daugavpils (Latvia), Panevezys (Lithuania), Miskolc (Hungary) and Blackpool (the United Kingdom). This could suggest that there were underlying reasons for such high mortality rates, for example, a lack of life chances, low levels of economic resources, specific occupations, lifestyle choices, local environmental issues, or poor access to/availability of medical services.
Financial situation and cost of living

In the aftermath of the financial and economic crisis, some Europeans have expressed the opinion that their overall standard of living has deteriorated, and this may be linked with perceptions concerning falling real wages, less job security and increased unemployment, or reduced social benefits. This final section looks at the financial situation of Europeans and the distribution of income by degree of urbanisation, alongside an analysis of the cost of living in European cities.

The difference between incomes in cities and rural areas was widest in those EU Member States with the lowest levels of income.

In 2014, median equivalised net income in the EU-28 was EUR 15 778 per inhabitant. An analysis by degree of urbanisation shows that income levels were, on average, higher for those living in towns and suburbs (5.8 % above the average) and cities (5.3 %), while the median income in rural areas was 13.4 % lower. In all 17 of the EU Member States that recorded median incomes below the EU-28 average, the highest income levels, by degree of urbanisation, were consistently recorded for those living in cities, while the lowest incomes were registered for those living in rural areas (other than in Estonia where the lowest median income was recorded for those living in towns and suburbs). This group of 17 Member States also recorded some of the biggest variations in income levels between cities and rural areas; this was particularly true in Romania and Bulgaria — the two EU Member States with the lowest income levels — as median incomes for people living in cities were 95 % and 57 % higher than those for people living in rural areas.

In Belgium, Austria and the United Kingdom, cities had the lowest levels of income.

There was a more varied distribution among those EU Member States where income levels were above the EU-28 average. In Luxembourg, Sweden, Finland, France and Ireland, the highest median income was recorded for those living in cities, whereas people living in towns and suburbs in Denmark, Austria, the Netherlands, Belgium and Germany had the highest median income. The United Kingdom was the only EU Member State where people living in rural areas recorded the highest level of income; it also reported that people living in cities had the lowest median level of income — a pattern that was repeated in Belgium and Austria.
London was the EU capital with the highest cost of living

Discussions concerning the quality of life often turn to the cost of living or the financial situation of households. The (wo)man in the street is particularly concerned by her/his ‘in-pocket’ disposable income, in other words, the amount that she/he can spend (or save), having paid their taxes and social security contributions after having received any social benefits.

There are considerable differences in the cost of living between EU Member States, between urban and rural areas in the same Member State, or indeed, between different neighbourhoods in the same city: for example, compare the price of an expresso in the eastern suburbs of Paris to the price of an expresso on the Champs Élysées.

Figure 14 is based on purchasing power correction coefficients that seek to allow comparisons of the cost of living between EU capital cities; the results are presented in relation to the cost of living in Bruxelles/Brussel (= 100). Using this measure, London was the most expensive capital city among the EU Member States in 2015 — in part due to relatively high property and rental prices — its cost of living was approximately two thirds higher than in Bruxelles/Brussel. The next most expensive capital cities were those in the three Nordic Member States — København, Stockholm and Helsinki — while Dublin, Paris, Amsterdam and Wien were the only other capitals in the EU where the cost of living was higher than in Bruxelles/Brussel. By contrast, at the other end of the range, the cost of living in the Bulgarian capital of Sofia was the lowest among EU capital cities, at almost half (52.1) that recorded in the Belgian capital.
The impact of the financial and economic crisis was evident when asking people how satisfied they were with the financial situation of their household.

Results from a perception survey on the quality of life in 79 European cities for 2015 suggest that the highest levels of satisfaction concerning the financial situation of households were recorded in Antwerpen (Belgium), København and Aalborg (Denmark), Stockholm and Malmö (Sweden). At the other end of the ranking, the lowest levels of satisfaction were recorded in the two Greek cities that were surveyed, the capital of Athina (36 %) and Irakleio (40 %). No more than 60 % of the population living in Zagreb (Croatia), Napoli, Palermo and Torino (Italy), Budapest and Miskolc (Hungary), or Lisboa and Braga (Portugal) were satisfied with the financial situation of their household. Chapter 13 provides more information in relation to satisfaction and quality of life issues in cities.
Map 2: Proportion of people who are satisfied with the financial situation of their household, 2015 (%)

Source: Eurostat (urb_percep) and (urb_cpop1)

Source data for tables, figures and maps (MS Excel)
- Living in cities: tables and figures

See also
- Urban Europe — statistics on cities, towns and suburbs (online publication)
- Degree of urbanisation classification - 2011 revision
- Eurostat regional yearbook
- Health (all articles on living conditions)
- Living conditions (all articles on living conditions)
- Population (all articles on population)
- Statistics on regional typologies in the EU
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External links
- European Commission, Directorate-General for Regional and Urban Policy, Urban development
- European Commission, Directorate-General for Regional and Urban Policy, A harmonised definition of cities and rural areas: the new degree of urbanisation
- OECD, Redefining urban — a new way to measure metropolitan areas

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