The Urban Audit — measuring the quality of life in European cities

The importance of urban statistics

In the EU-27, 74 percent of the total population lives in cities and towns with more than 5 000 inhabitants; in other words, only a quarter of European citizens live in a rural environment. Therefore, it matters very much for any policymaker, be they at European, national, regional or local level, to understand what is happening economically and socially in Europe's cities and towns.

It is one of the priorities of the renewed Lisbon Strategy and also of the Community Strategic Guidelines on Cohesion for 2007–2013 to improve the attractiveness of regions and cities. Whether as homes, workplaces or centres of learning, cities have a major impact on the lives of a majority of Europe's citizens.

A good quality of life is crucial for attracting and retaining a skilled labour force, businesses, students, tourists and, most of all, residents in a city. Assessing the current economic and social situation is a prerequisite for any improvement, development and future monitoring. The Urban Audit is a response to this demand for objective information. This data collection of urban statistics provides information on the different aspects of the quality of urban life in Europe's cities. It has become a very rich source of comparable data. The following text will illustrate with some examples this richness of quantitative urban information.

The Urban Audit is the result of a joint effort by the participating cities, the Statistical Offices belonging to the European Statistical System, Eurostat and the Directorate-General for Regional Policy.

History and cities covered

The Urban Audit exercise can now look back over almost a decade of trials, errors and achievements. Several concepts were tested and large volumes of data were collected during the pilot study in 1999, the first large-scale data collection round of 2003/2004 and the most recent collection round of 2006/2007. The data which passed the stringent quality controls have been available on Eurostat's dissemination website since 29 April 2008. The uniqueness of the Urban Audit data set lies in the extent of its three main dimensions: its wide choice of indicators, its large geographical coverage and its long time series.

Following a pilot study of 58 cities in 1999, the data collection expanded in 2003/2004 to cover 258 cities. At present the Urban Audit includes 321 cities with a population between 50 000 and 10 million in the EU-27 Member States, 26 Turkish cities, six Norwegian cities and four Swiss cities. The cities were selected in cooperation with the national Statistical Offices, and are geographically dispersed to ensure a representative sample, meaning that the 357 cities chosen are not necessarily the largest.

Data are collected (a) for the core cities, (b) for the larger urban zones, i.e. the cities including their hinterland, and (c) a small subset of variables is also collected for sub-city districts *(see also the methodological note)*.

Thematic coverage

More than 300 indicators were defined and calculated, covering most aspects of quality of life, e.g. demography, housing, health, crime, labour market, income disparity, local administration, educational qualifications, environment, climate, travel patterns, information society and cultural infrastructure. These indicators are derived from the 336 variables collected by Eurostat. Data availability differs from domain to domain: in the domain of demography, for instance, data are available for more than 90% of the cities, while as regards the environment, data are available for fewer than half of them.

Total population: 26 cities with more than one million inhabitants

Among the 357 Urban Audit cities, there were 26 cities with a population of over one million in 2004, 21 in the EU and five in Turkey[1]. 65 million people lived in these 26 cities, covering 43 percent of the population of all Urban Audit cities.

In fact, the population of these 26 cities covers 11 percent of the total population of the countries considered (EU-27 plus Turkey, Norway and Switzerland).

Table 1 gives the population of the fifteen largest Urban Audit cities. It shows that Istanbul, with a population of nearly 10 million inhabitants, is the largest city, followed by Greater London and Paris (petite couronne).

Most agglomerations with more than one million inhabitants are capitals. Non-capitals among the 15 largest cities are (apart from Istanbul) Izmir in Turkey and Hamburg in Germany.

Table 1: Total population 2004

The fifteen largest cities	
Istanbul (TR)	9 898 000
London (UK)	7 429 000
Paris "petite couronne" (FR)	6 385 000
Ankara (TR)	3 402 000
Berlin (DE)	3 388 000
Madrid (ES)	3 100 000
Greater Athina (EL)	2 884 000
Roma (IT)	2 554 000
Izmir (TR)	2 387 000
Paris (FR)	2 152 000
Bucuresti (RO)	1 927 000
Greater Lisboa (PT)	1 808 000
Hamburg (DE)	1 735 000
Budapest (HU)	1 696 000
Warszawa (PL)	1 693 000

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1) *Applying the concept of the administrative city to the capital cities, in particular to London and Paris, does not necessarily yield comparable spatial units. For this reason, "kernels" have been created for several capital cities in order to obtain roughly comparable entities.*

Table 2: Population change 1999–2004

The ten highest		The ten lowest	
Almere (NL)	25.4%	Maribor (SI)	-14.1%
Van (TR)	18.4%	Frankfurt/Oder (DE)	-13.8%
Utrecht (NL)	16.1%	Bacau (RO)	-13.4%
Antalya (TR)	14.3%	Piatra Neamt (RO)	-11.5%
Leipzig (DE)	14.0%	Oporto (PT)	-10.4%
Palma di Mallorca (ES)	12.8%	Targu Mures (RO)	-9.9%
Murcia (ES)	12.8%	Catania (IT)	-9.5%
Istanbul (TR)	12.4%	Lisboa (PT)	-8.8%
Erzurum (TR)	12.3%	Halle a.d. Saale (DE)	-8.6%
Bursa (TR)	11.8%	Sibiu (RO)	-8.2%

Population growth: fast growth in Turkish cities, shrinking cities in Romania

Five of the ten fastest-growing cities are in Turkey. However, the city with the fastest growing population is Almere in the Netherlands, a city created only in 1984 in order to cope with the population overflow of Amsterdam. But also Utrecht (NL), Leipzig (DE), Palma di Mallorca and Murcia (both ES) show a strong population growth.

Four of the ten most-severely shrinking cities are in Romania: Bacau, Piatra Neamt, Targu Mures and Sibiu. The other six cities are well spread out across the EU, including cities in Slovenia, East Germany, Portugal and Italy. The biggest decline was in Maribor in Slovenia. See Table 2.

Population by age group: high shares of elderly people in Italy

If we examine the age structure of the cities, some striking results can be found in the Urban Audit data set. Ignoring for a moment the Turkish cities, agglomerations in the United Kingdom and in Norway have the highest share of children under 15 years of age (see Table 3). However, the highest proportion of children can be found in Almere, the Netherlands, which was also the fastest growing city in Europe. Most Turkish cities show an even higher proportion of children under 14 years old. To include them in the table would create a list of only Turkish cities.

Table 3: Population age groups 2004

Share of pop. aged 0-14		Share of pop. aged 65 and over	
Almere (NL)	23.8	Trieste (IT)	27.0
Derry (UK)	23.4	Genova (IT)	26.7
Bradford (UK)	21.5	Bologna (IT)	26.7
Tromsø (NO)	21.3	Firenze (IT)	25.8
Birmingham (UK)	21.1	Venezia (IT)	24.8
Ponto Delgada (PT)	21.0	Cremona (IT)	24.8
Kristiansand (NO)	20.7	Lisboa (PT)	24.2
Stavanger (NO)	20.6	Ancona (IT)	24.1
Stevenage (UK)	20.1	Torino (IT)	23.5
Bergen (NO)	19.8	Milano (IT)	23.3

Table excludes Turkish cities

When we examine the proportion of people aged 65 and over, we do indeed obtain a mono-national list: apart from one exception, all cities with a very high share of elderly people are in Italy. The only exception is Lisboa in Portugal. The next non-Italian city on the list is ranked number 12, Mülheim an der Ruhr (DE) with 22.6 percent of the population over 64, the next is ranked number 18, Bilbao (ES) with 21.4 percent.

Unemployment: high in Belgian and Polish cities, low in Norwegian and UK cities

If we take the Urban Audit cities for which unemployment data are available, we find some striking disparities between the cities.

The unemployment rate ranges from 30.8 percent in Radom in Poland to 0.8 percent in Luxembourg. Seven of the ten cities with the highest unemployment rates are in Poland.

Among the cities with the lowest unemployment rates are five in Norway and four in the United Kingdom.

Table 4: Unemployment rate 2004

The ten highest		The ten lowest	
Radom (PL)	30.8	Luxembourg (LU)	0.8
Charleroi (BE)	28.3	Tromsø (NO)	2.1
Liège (BE)	25.8	Wrexham (UK)	2.5
Nowy Sącz (PL)	25.8	Bergen (NO)	2.9
Częstochowa (PL)	24.6	Trondheim (NO)	3.0
Gorzów Wielkopolski (PL)	23.9	Stevenage (UK)	3.0
Koszalin (PL)	23.8	Gravesham (UK)	3.1
Calarasi (RO)	23.7	Kristiansand (NO)	3.2
Konin (PL)	23.1	Worcester (UK)	3.3
Kielce (PL)	23.0	Stavanger (NO)	3.4

Polish cities: Eurostat estimation from 2002 data

The table illustrates that unemployment is very much influenced by national factors which set the overall level of unemployment. The influence of urban factors seems to be rather small.

Employment structures differ a lot in European cities

When it comes to the economic indicators in the Urban Audit, we find that an extraordinary high proportion of employment in services can be found in various cities in central and Western Europe, topped by Cambridge with 94.4 percent. There are five British cities in the top ten, but also cities in Switzerland, Luxembourg, the Netherlands and Germany. Most of these cities are acknowledged centres of research, financial services and administration.

If we regard the top-ten list of cities with a very high proportion of self-employed, we obtain a very different picture: self-employment is concentrated in the south of Europe, topped by eight Greek cities, followed by Italian cities and further down the ranking there are Spanish cities. Self-employment is very rare in all Scandinavian countries, with rates below 5 percent.

Table 5: Structural employment indicators (Top 10)

Employment in services		Self Employment Rate	
Cambridge (UK)	94.4	Larissa (EL)	35.0
Luxembourg (LU)	93.3	Kavala (EL)	32.6
Genève (CH)	92.6	Kalamata (EL)	31.9
Amsterdam (NL)	92.5	Iraklio (EL)	29.4
s' Gravenhage (NL)	92.2	Patra (EL)	27.9
Manchester (UK)	91.9	Volos (EL)	27.3
København(DK)	91.9	Ioannina (EL)	27.1
London (UK)	91.3	Thessaloniki (EL)	26.0
Edinburgh (UK)	91.2	Verona (IT)	25.0
Potsdam (DE)	90.7	Firenze (IT)	24.3

Table 6: Burglary 2004

Domestic burglary per 1000 residents in EU27 capitals	
Brussels (BE)	11.2
London (UK)	8.8
Amsterdam (NL)	8.8
Tallinn (EE)	5.4
København (DK)	4.8
Ljubljana (SI)	4.7
Lisboa (PT)	4.2
Budapest (HU)	3.9
Roma (IT)	3.9
Vilnius (LT)	3.3
Riga (LV)	3.2
Warszawa (PL)	2.1
Berlin (DE)	1.8
Stockholm (SE)	1.7
Madrid (ES)	1.3
Lefkosia (CY)	1.2
Helsinki (FI)	1.0
Bratislava (SK)	0.9
Luxembourg (LU)	0.3

Crime rate: burglaries in the capitals show a great variance, car thefts occur more often in Italy [*]

The Urban Audit also records more unpleasant characteristics affecting a city's attractiveness. For example, various measurements of crime can be found. If we look, for example, at the number of domestic burglaries in the capitals, as far as data is available, Brussels is leading the list, followed by Bern and then London. Madrid, Helsinki and Luxembourg are the least affected by this type of crime.

Table 6: Car thefts 2004

Car thefts per 1000 residents (top 10)	
Caserta (IT)	15.3
Catania (IT)	14.7
Napoli (IT)	11.7
Torino (IT)	11.3
Roma (IT)	11.2
Milano (IT)	11.0
Manchester (UK)	11.0
Catanzaro (IT)	10.7
Nottingham (UK)	10.3
Kingston/Hull (UK)	10.2

Car thefts seem to be more frequent in Italian cities but three British cities are also in the top ten.

Climate

An important factor for the attractiveness of a city is certainly the weather. While the number of hours of sunshine, another Urban Audit indicator, might be regarded as positive by some and disliked by others, most people would agree that rain is a negative feature. So let's look at the number of rainy days per year in the cities.

Not surprisingly, given their location facing the Atlantic, several British and Irish cities come in the top ten of the rainiest places. But the list is led by two German cities, Halle a. d. Saale and Köln.

Among the driest places are six Turkish cities, but also cities in Portugal, Cyprus and Greece.

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[*] *Please refer to the Comparability item in the Methodology section*

Table 7: Rainy days per year 2004

The ten highest		The ten lowest	
Halle a.d. Saale (DE)	266	Faro (PT)	60
Köln (DE)	263	Izmir (TR)	63
Glasgow (UK)	262	Setubal (PT)	64
Cork (IE)	257	Athina (EL)	68
Derry (UK)	256	Manisa (TR)	68
Manchester (UK)	250	Adana (TR)	69
Galway (IE)	249	Antalya (TR)	70
Tampere (FI)	249	Lefkosia (CY)	72
Dublin (IE)	246	Konya (TR)	72
Stoke-on-Trent (UK)	239	Gaziantep (TR)	73

Irish cities: data for 2001

Demand and supply in cinemas

Luxembourg has the highest cinema attendance per population, followed by Paris in France and Gijón in Spain. All other cities on the top-ten list of cinema attendance are in Spain.
Ancona in Italy offers the highest number of cinema seats for its population, followed by Vitoria/Gasteiz and Alicante/Alacant, both in Spain. But also cities in Switzerland, Slovakia and Belgium offer a high number of cinema seats.

Table 8: Cinemas

Cinema attendance per resident		No of cinema seats per 1000 residents	
Luxembourg (LU)	15.6	Ancona (IT)	129.6
Paris (FR)	14.0	Vitoria/Gasteiz (ES)	51.9
Gijón (ES)	12.8	Alicante/Alacant (ES)	51.7
Oviedo (ES)	12.6	Genève (CH)	51.2
Bilbao (ES)	12.6	Trnava (SK)	47.6
Santander (ES)	12.5	Namur (BE)	47.4
Valladolid (ES)	12.5	Lausanne (CH)	44.4
Hospitalet de Llobregat (ES)	12.5	Firenze (IT)	44.4
Santiago de Compostela (ES)	12.4	Luxembourg (LU)	42.5
Vitoria/Gasteiz (ES)	12.4	Bern (CH)	41.3

Concluding remarks

The examples show that the Urban Audit data collection is a source of very rich information, which can be used for various analytical purposes. This text showed and commented on only a few indicators as an appetiser for the reader. We strongly encourage readers to probe deeper into the Urban Audit database and discover more about the quality of life in European cities.

It is planned to start, in 2009, a restricted annual data collection for the Urban Audit with 20 to 30 key indicators only. The next exhaustive data collection is envisaged for 2010.

Methodological note

Choice of the spatial unit

A city can be defined as (a) an urban settlement (morphological concept), (b) as a functional unit or (c) as a legal entity (administrative concept). The Urban Audit uses this latter concept (c) and delineates the "core city" according to political and administrative boundaries. Due to the varying structures of local government, this concept is not always strictly comparable between countries.

It goes without saying that economic activity, health services, air pollution, etc. cross a city's administrative boundaries. To capture information on this extended spatial level, the "larger urban zone" was defined based on commuter flows, thus approximating the functional urban area. The larger urban zone includes the core city and its commuter belt.

Finally, each core city is divided into sub-city districts. This third spatial level enables information to be collected on possible disparities within a city.

Reference year

The reference year for the last Urban Audit data collection was 2004. If, however, a data point was not available for that year, it was permitted to transmit data for neighbouring years, i.e. 2003 or 2005. In other words, the data in the tables do not always refer exactly to 2004.

Data availability

All Urban Audit data have to undergo a stringent quality check, where consistency is tested and outlier values are searched and then questioned. The process is still ongoing, which means that certain data were received by Eurostat, but have not yet been published since they failed the quality check. As a consequence, more and more data are constantly uploaded onto the public Eurostat website, as and when they have been checked and approved.

Definitions

All definitions of the indicators and the underlying raw data follow as much as possible the definition of national and regional figures, in order to allow for comparability. If a given data set follows a different definition, data providers were asked to estimate the data in line with the required definition.

An example may illustrate this approach: For cities in general only registered unemployment data are available. In order to arrive at unemployment figures in line with the ILO concept, which are comparable with national and regional unemployment statistics, the level of the measured registered unemployment data has to be adjusted to the level of ILO unemployment with the aid of a mark-up factor.

Comparability

Data at a city level is sometimes less comparable between countries than regional or national statistics. Definitions and the response behaviour may differ despite all efforts to harmonise concepts. For example, the reporting of car thefts or burglaries may depend on insurance requirements in a given country or on the efficiency or perceived efficiency of the police force.

Coverage

The data published in the tables of this Statistics in focus should not be interpreted as a "Top 10" or definitive ranking of all European cities. As mentioned in the introduction, the Urban Audit is based on just a sample of cities. Moreover, data is not always available for all cities of the sample. For example, for the indicator of domestic burglaries only 63% of the cities provided the data.

Further information

Data: Eurostat Website: http://ec.europa.eu/eurostat

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