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Population trends in the United States and Europe: similarities and differences

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The European Union, which includes 27 countries, now has a population of half a billion inhabitants, and is growing by two million each year. So why the recurrent fear of demographic decline? The population of Europe is often compared with that of the United States where the situation is more dynamic, with higher fertility and more sustained immigration flows, but where life expectancy is lower. Gilles Pison explains the similarities and differences between European and American demography.

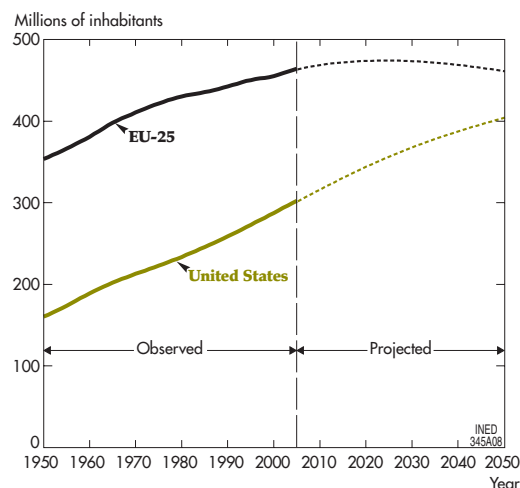
The most recent year for which consolidated population statistics are available for both the United States and the European Union is 2005. For this reason, our comparison will be based on data for that year, and hence on 25 EU countries and not 27 (Romania and Bulgaria joined the EU in 2007). The population of EU-25 is one and half times that of the United States: 463 million versus 296 million [1, 2]. But under the medium scenario of the United Nations projections, Europe's population may decline to 460 million by 2050, while that of the United States will reach 402 million, 100 million more than today (Figure 1) [2]. Beyond that date, between 2060 and 2070, the European Union, in its 2005 configuration, may even be overtaken by the United States.

◆ Will the American population overtake that of Europe?

Population projections are often simply an extrapolation of recent trends, so the forecasts of the American population outnumbering that of the European Union are mainly a reflection of differences observed today. The European population still has many drivers of growth. In 2005, 4.8 million babies were born in EU-25, substantially more than in the United States (4.1 million) and net migration – the difference between arrivals and departures – totalled 1.7 million, versus

1.1 million in the United States (Table). But comparison is only meaningful if the number of births or net migration are measured in relation to population size. The birth rate is much lower in the European Union than in the United States (10.5 births per 1,000 inhabitants versus 14.0) and population growth much slower (4.4‰ versus 9.5‰). The number of deaths in Europe is practically equal to the number of births, and most population increase is due to migration.

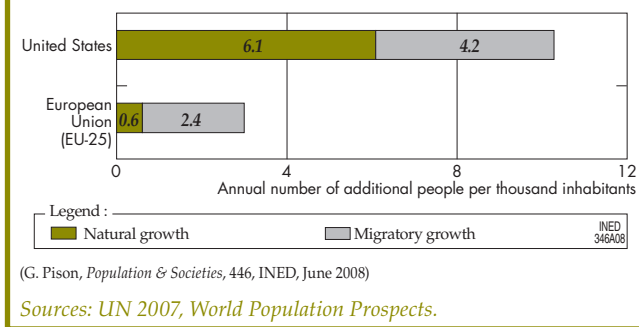
Figure 1 – Populations of the European Union (EU-25) and of the United States



(G. Pison, *Population & Societies*, 446, INED, June 2008)

Sources: *United Nations 2007, World Population Prospects, medium scenario* [2].

Figure 2 – Mean natural population growth over the period 1990-2009 (%)



The migratory growth rate is almost as high in the European Union as in the United States (3.6% versus 3.8%), though 2005 was an exceptional year in Europe due to the massive migrant inflows to Spain and Italy. These flows declined in subsequent years. Over the twenty years from 1990 to 2009, European migratory growth stands at 2.4% on average, well below the US rate of 4.2% (Figure 2). Over this period, the American population has increased three and a half times faster than that of Europe, with migratory growth boosting rapid natural growth. In Europe, although natural growth was still the main source of population increase in the 1980s, net migration has risen sharply since the 1990s, while natural growth has dwindled. Immigration is the only factor driving population growth today and, in coming decades, this pattern will be followed by all European Union countries, including France: deaths will outnumber births as the baby-boom generations reach the end of their lives. Even if immigration is controlled, migration will become the main determinant of European population stability or growth.

◆ **The mystery of high American fertility**

The strong natural growth in the United States is due, in part, to high fertility: 2.05 children per woman on average, compared with 1.52 in the European Union. In this respect, it is not the low European level which stands out, but rather the high American level, since below-replacement fertility is now the norm in many industrialized countries (1.3 children per woman in Japan, for example) and emerging countries (1.2 in South Korea, and around 1.6 in China). With more than two children per woman in 2005, the United States ranks above many countries and regions of the South and belongs to the minority group of high-fertility nations [3].

Average fertility rates conceal large local variations, however: from 1.6 children per woman in

Vermont to 2.5 in Utah; from 1.2 in Poland to 1.9 in France. The scale of relative variation is similar on either side of the Atlantic. In the north-eastern USA, along a strip spreading down from Maine to West Virginia, fertility is at the same level as in northern and western Europe (Figure 3). Close to Mexico, on the other hand, the “Hispanic” population (a category used in American statistics) is pushing up fertility levels. Over

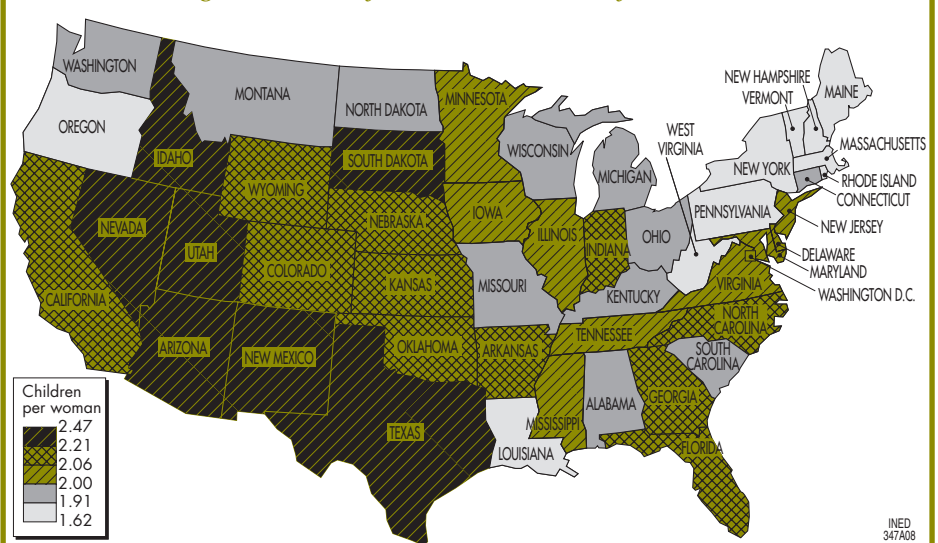
Table – Demography of the European Union (EU-25) and the United States in 2005

	European Union (EU-25)	United States
Population on 1 July 2005 (millions)	462.6	295.9
Change (absolute numbers in thousands)		
Births	4 843	4 140
Deaths	4 467	2 445
Natural growth (1)	375	1 696
Net migration (2)	1 667	1 121
Total change	2 042	2 817
Rates (per 1,000 inhabitants)		
Birth rate	10.5	14.0
Death rate	9.7	8.3
Natural growth rate (1)	0.8	5.7
Migratory growth rate (2)	3.6	3.8
Total growth rate	4.4	9.5
Fertility rate (children per woman)	1.52	2.05
Life expectancy at birth (years)		
Males	75.8	75.2
Females	82.0	80.4

(1) difference between births and deaths.
(2) difference between migrant arrivals and departures.

(G. Pison, *Population & Societies*, 446, INED, June 2008)
Sources: Eurostat, US Census Bureau, Nat. Vital Statistics Reports.

Figure 3 – Fertility in the United States by state (2005)



Note: The low fertility in Louisiana indicated by the American statistics is particular to 2005. It can be explained in part by the devastating consequences of Hurricane Katrina which provoked a population exodus and which probably also disrupted the birth registration system [4].

(G. Pison, *Population & Societies*, 446, INED, June 2008)
Source: Centers for Disease Control [4].

the United States as a whole, Hispanic fertility stands at 2.9 children per woman, versus 1.9 among non-Hispanic women [4]. Between “White” and “African-American” women, the difference is much smaller: 1.8 versus 2.0.

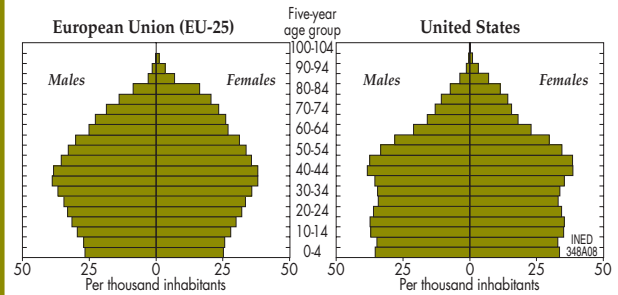
The highest fertility levels in the European Union are found in northern and western Europe (between 1.7 and 1.9 children per woman) and the lowest in southern, central and eastern Europe (below 1.5). Exceptions to this rule include Estonia (1.5), with higher fertility than its Baltic neighbours, and Austria (1.4) and Germany (1.3), which are closer to the eastern and southern countries.

France is somewhat atypical. Although centrally placed in geographical terms, it is the top-ranking member of EU-25 in terms of fertility, with a level close to that of the United States. This particularity can be explained in a number of ways. The long and popular French tradition of strong family support policies is often cited in this respect. Yet in the United States, where the only family policy is that of full employment, fertility is nonetheless higher than in France. As an explanation for high American fertility, some evoke the influence of religious practice, much more frequent across the Atlantic, though it is unclear whether religiosity sustains family values, or the reverse. Moreover, unplanned pregnancies are much more frequent in the United States, among adolescent girls especially, a phenomenon linked to poverty and particularly prevalent in the large Hispanic population [5]. But although, on both continents, the total fertility rate of immigrants is much higher than that of native-born women, this is due partly to their pattern of behaviour: migrant women tend to wait until they are settled in the host country before having their first child [6,7]. Before arriving in the United States or Europe, they are less fertile than native-born women of the same age. Their fertility then overtakes that of native-born women in the years which follow, before levelling off as they near completed fertility. It would appear, however, that this initial “over-compensation” effect is stronger in the United States, thanks to the principle of *jus soli* which entitles immigrants’ children to American nationality from birth.

◆ Lower life expectancy in the United States

More dynamic in terms of fertility and migration, the United States performs less well than Europe for life expectancy. Let us take a closer look at this rarely stated but spectacular divergence. Though the total number of deaths in EU-25 is higher than in the United States – 4.5 million versus 2.4 million in 2005 (Table) – this figure is misleading, since the European population is both larger and older (Figure 4). The meaningful indicator for comparison is life expectancy at birth, which measures the risk of dying at each age. In 2005, European women lived almost one and a half years longer than their American counterparts – 82.0 years versus 80.4 – and for men the figures were 75.8 years and 75.2 years respectively (Table). Yet in 1980, the situation

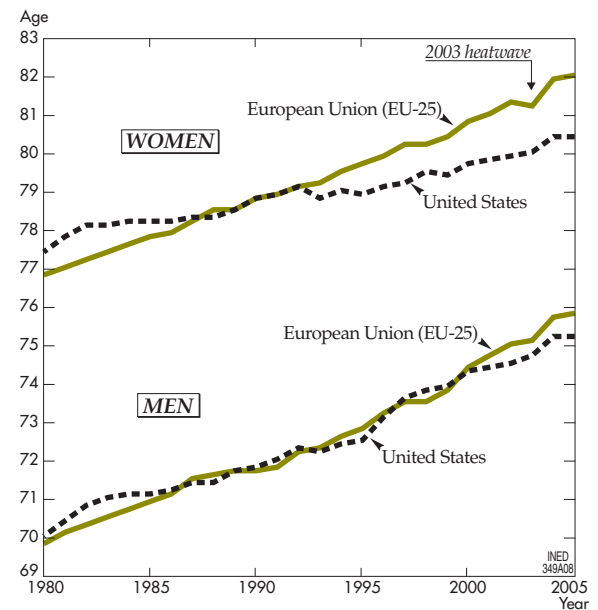
Figure 4 – Population pyramid of the European Union (EU-25) and the United States in 2005



(G. Pison, *Population & Societies*, 446, INED, June 2008)

Sources: Eurostat [1] and United Nations [2].

Figure 5 – Life expectancy at birth in the European Union (EU-25) and the United States since 1980



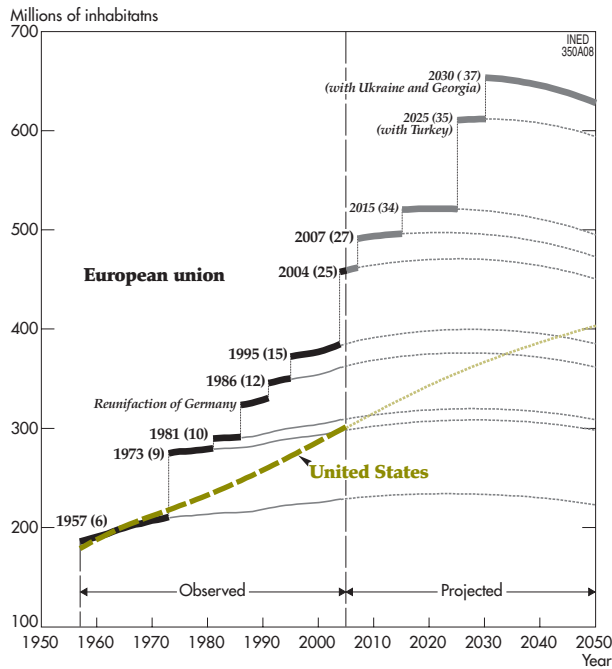
(G. Pison, *Population & Societies*, 446, INED, June 2008)

Sources: Europe: Eurostat; United States: Centers for Disease Control.

was the reverse. Since then, life expectancy has increased much more slowly in the United States, gaining 5.2 years for men compared with 6.0 years in Europe, and just 3.0 years for women versus 5.2 years in Europe (Figure 5). The American slowdown is especially marked among women, and the gap with respect to countries such as France, Spain or Italy is now more than 3 years.

What is the explanation? Although the United States are world leaders in technological and medical innovation, not all inhabitants benefit equally, and health inequalities are large. Unlike Europe and Canada, around 16% of the American population have no health insurance, and their access to healthcare is limited. The Joint Canada/United States Survey of Health conducted in 2003 using the same questionnaire in both countries showed that health status and healthcare consumption followed a similar pattern by social category, with the notable exception of categories at the bottom of the scale. The health status of the 20% of Americans with the lowest incomes is much poorer

Figure 6 – The future population of the European Union and the United States



Note: We postulate here that the Balkan countries (Albania, Bosnia-Herzegovina, Croatia, Kosovo, Macedonia, Montenegro and Serbia), who are not EU members in 2008, enter the European Union in 2015, Turkey in 2025, Ukraine and Georgia in 2030. Other potential future candidates include Morocco, Tunisia, Algeria, Norway and Switzerland.

For the list of current EU member countries, see note (1).

(G. Pison, *Population & Societies*, 446, INED, June 2008)

Sources: Eurostat (2005) and United Nations (2007) projections.

than that of their Canadian counterparts [8]. Obesity, in particular, a highly revealing health status indicator, is one and a half times more frequent in the United States than in Canada among this poorest fraction of the population and is much more common in the United States than in Europe, notably among women. It may also be a factor in the country's slower increase in life expectancy.

◆ Growth through enlargement or immigration

From a geopolitical rather than geographical viewpoint, the population of the European Union has increased steadily since its creation, primarily through enlargement [9]. This growth should continue over the coming decades with the entry of new member countries. When it was founded in 1957, the EEC comprised just six countries with a total population of 167 million, practically equivalent to the population of the United States at that time. Since then, the EU population has almost tripled, thank to the successive entry of 21 new

(1) The six founding countries – Belgium, France, Germany, Italy, Luxembourg, Netherlands – were joined in 1973 by the United Kingdom, Ireland and Denmark; in 1981 by Greece; in 1986 by Spain and Portugal; in 1995 by Austria, Finland and Sweden; in 2004 by Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Czech Republic, Slovakia and Slovenia; and in 2007 by Bulgaria and Romania.

countries (1) (Figure 6). If the seven Balkan candidate countries enter in 2015, their 24 million inhabitants will raise the EU population to 520 million. If Turkey were also to become a member, in 2025 for example, its 90 million inhabitants would raise the total to 610 million. In a more distant future, the countries of eastern Europe such as the Ukraine and Georgia would add a further 40 million.

As we have seen, the population of the United States should increase by around one-third to 400 million by 2050, thanks not to enlargement, but to a steady inflow of migrants. The populations of the two entities are thus set to grow considerably, but in different ways. Natural growth in the EU will soon become negative and, without immigration, the population will decline, while the strong natural growth currently observed in the United States will decrease only slightly as the population grows older. In both cases, however, immigration will continue to play a key role. It already accounts for 40% of population growth in the United States, and almost 100% of growth in Europe.

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ABSTRACT

In 2005, the population of the 25 countries of the European Union was one and a half times that of the United States: 463 million versus 296 million. But over the last twenty years, population growth in Europe has been three and a half times slower than in the United States, where sustained migratory growth has boosted rapid natural growth. In Europe, immigration is now the only driver of population increase. Rapid natural growth in the United States is due partly to high fertility: 2.05 children on average in 2005 versus 1.52 in EU-25. On the other side of the coin, Americans, women in particular, have a shorter length of life than Europeans, with a female life expectancy of 80.4 years versus 82.0 years in Europe.