

28 January 2010

**Long-Term Projection of the Population of Spain, 2009-2049**

**Current demographic trends are set to lead to a gradual decrease in population growth during the forthcoming decades**

**The natural population growth is set to go into negative figures from 2020 onwards**

**The population aged over 64 years old is set to double in 40 years, and come to represent over 30% of the total due to aging of the population pyramid**

The Long-Term Projection of the Population of Spain, compiled by the INE, constitutes a statistical simulation of the demographic size and structure of the population resident in Spain during the forthcoming 40 years, should the current demographic trends and behaviour be maintained. It therefore involves a long-term extension, for the national population total, of the recently published Short-Term Population Projection.

In this way, these results basically show the long-term effect of the recently observed evolution of birth-rate, mortality and migration. Moreover, the simulation was compiled based on a constant annual flow of foreign immigration from abroad of 400,000 persons since 2019.

**Aging of the population reduces the potential for future demographic growth**

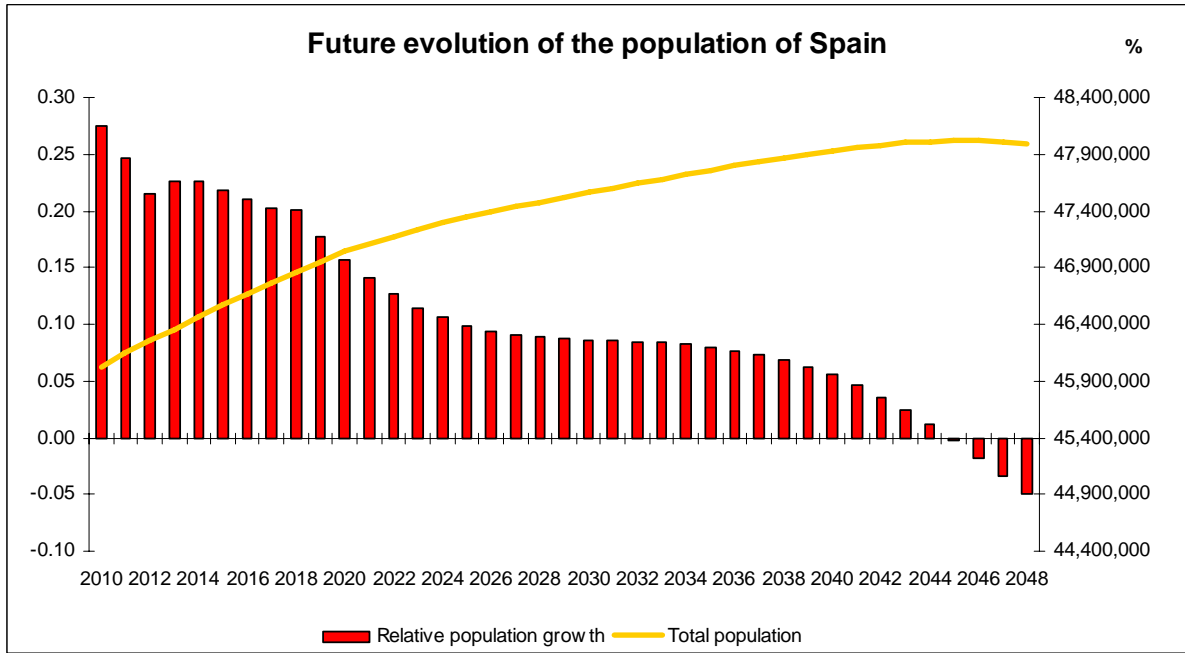
The current demographic structure of the population for Spain and the current demographic trends are set to bring about a scenario of reduced rates of future population growth, which would entail an increase of 2.1 million inhabitants during the next 40 years. Spain is thus set to reach almost 48 million in 2049.

Demographic growth is, furthermore, set to gradually decrease during the forthcoming decades.

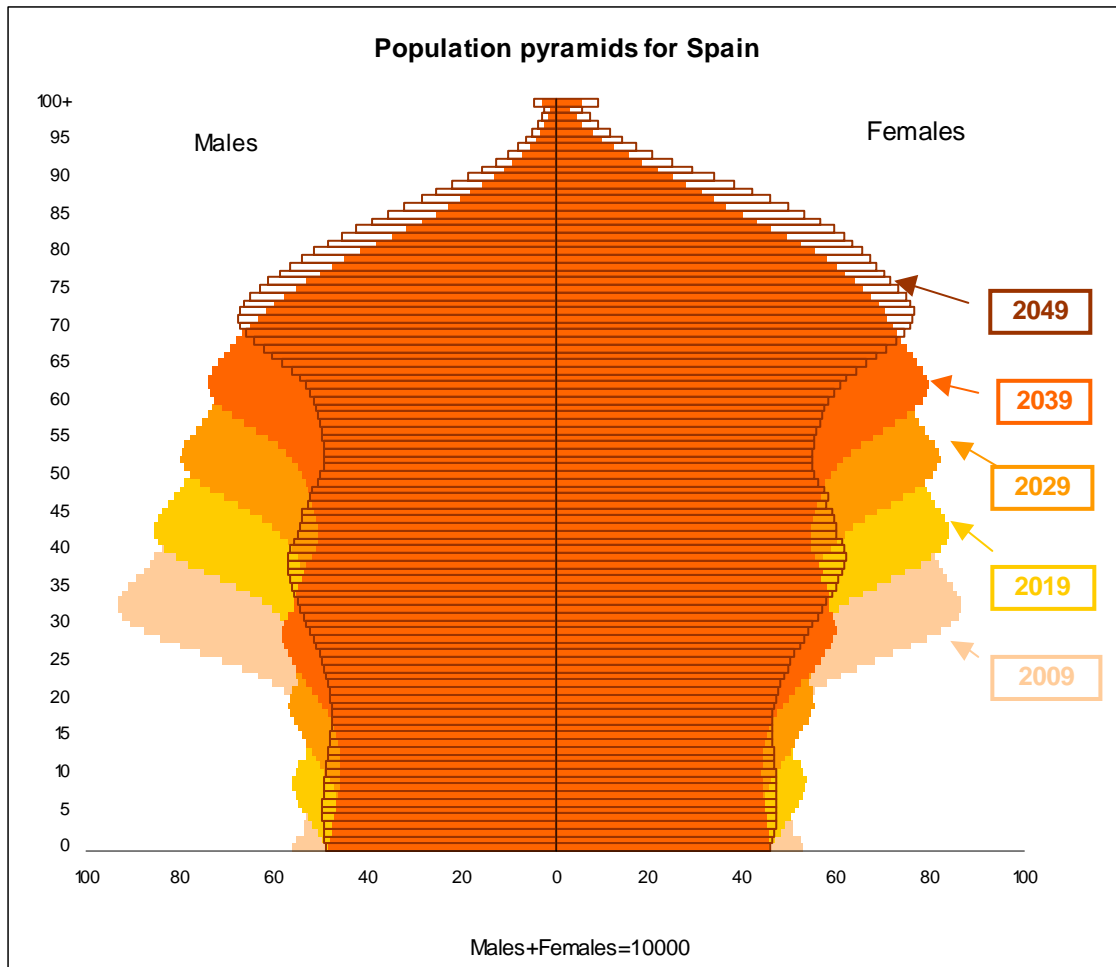
**Population growth for Spain**

Years	Resident population at 1 January	Population growth	
		Absolute	Relative (%)
2009	45,828,172		
2019	46,955,030	1,126,858	2.46
2029	47,517,722	562,692	1.20
2039	47,903,099	385,376	0.81
2049	47,966,653	63,555	0.13

Source: Long-Term Population Projection



The simulation carried out also demonstrates the gradual aging faced by Spain's demographic structure, which can be clearly observed in the evolution of the resulting pyramid of the population of Spain:



Source: Long-Term Population Projection

Indeed, the greatest absolute and relative growths during the forthcoming 40 years are set to be concentrated in advanced ages. Specifically, **the group aged over 64 years old is set to double in size, and comes to constitute 31.9% of the total population of Spain.**

Conversely, the population aged between 0 and 15 years old is set to increase by 157 thousand persons (2.2%), deriving from the future prolongation of growth trends of the currently observed birth-rate. Nevertheless, the population aged between 16 and 64 years old is set to decrease by more than half a million effectives, 18.4% of its current volume.

### Population resident in Spain by five-yearly group at 1 January 2009 and 2049

Age groups	2009	2049	Absolute growth	Relative growth (%)
TOTAL	45,828,172	47,966,653	2,138,481	4.67
0 to 4 years of age	2,418,939	2,299,310	-119,629	-4.95
5 to 9 years of age	2,245,724	2,317,571	71,847	3.20
10 to 14 years of age	2,095,985	2,283,219	187,234	8.93
15 to 19 years of age	2,270,821	2,252,754	-18,067	-0.80
20 to 24 years old	2,721,001	2,316,633	-404,368	-14.86
25 to 29 years of age	3,552,515	2,470,271	-1,082,244	-30.46
30 to 34 years of age	4,080,629	2,665,873	-1,414,756	-34.67
35 to 39 years of age	3,906,791	2,820,434	-1,086,357	-27.81
40 to 44 years of age	3,678,920	2,769,202	-909,718	-24.73
45 to 49 years of age	3,366,203	2,638,595	-727,608	-21.62
50 to 54 years of age	2,926,209	2,507,077	-419,132	-14.32
55 to 59 years old	2,560,214	2,555,691	-4,523	-0.18
60 to 64 years of age	2,375,287	2,744,749	369,462	15.55
65 to 69 years of age	1,942,790	3,180,535	1,237,745	63.71
70 to 74 years old	1,840,012	3,414,804	1,574,792	85.59
75 to 79 years of age	1,685,795	3,085,595	1,399,800	83.04
80 to 84 years of age	1,197,568	2,554,818	1,357,250	113.33
85 to 89 years of age	658,846	1,786,696	1,127,850	171.19
90 to 94 years of age	237,223	911,322	674,099	284.16
95 to 99 years of age	60,354	326,663	266,309	441.24
100 years old and over	6,346	64,841	58,495	921.76

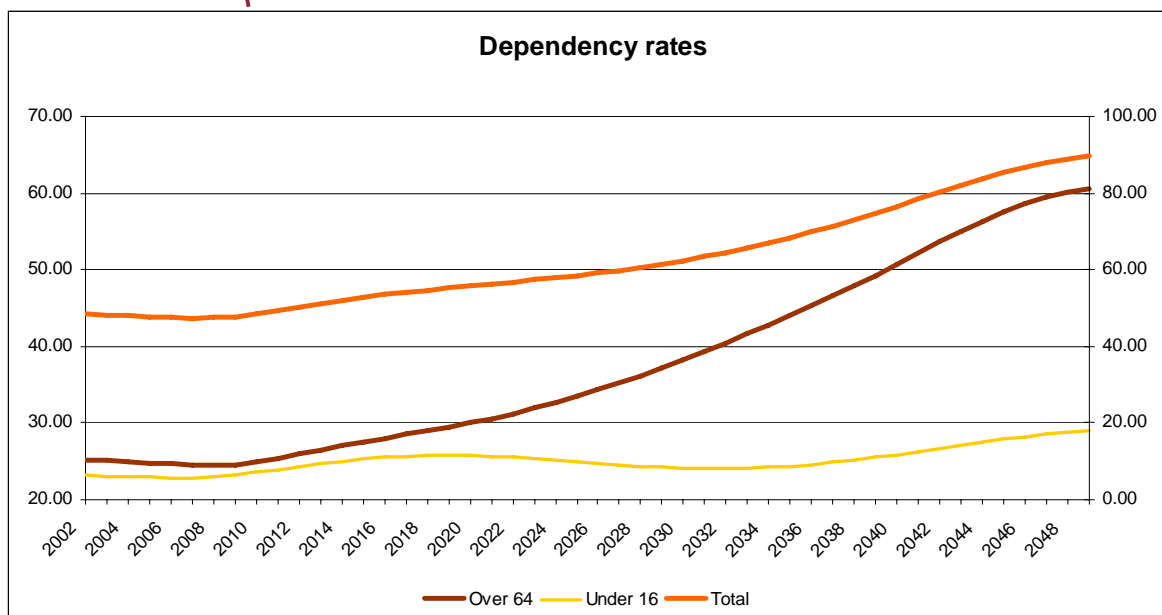
Source: 2009, Population Now Cast; 2049, Long-Term Population Projection

Thus, for every 10 persons of working age, in 2049 there are set to reside in Spain almost nine potentially inactive persons (aged under 16 years old or over 64 years old). That is, **the dependency rate is set to rise to 89.6%**, from its current 47.8%.

### Dependency rates

Years	Persons over 64 years	Under 16 years of age	Total (under 16 years old and over 64 years old)
2009	24.61	23.20	47.81
2019	29.47	25.75	55.22
2029	37.16	24.24	61.40
2039	49.29	25.48	74.77
2049	60.60	29.07	89.66

Source: Long-Term Population Projection



Source: Long-Term Population Projection

### Natural and migratory growth

The future continuity of recent birth-rate trends is set to take the average **number of children per woman** to the level of 1.71 in 2048. The aforementioned hypothesis is not likely to be sufficient to avoid the decrease in the absolute number of births during the next two decades, as a result of the decrease in the effective of women of child-bearing age. The number of births is not set to rise again until 2028, once the effect on the female population pyramid caused by the birth-rate of the 1980s has been overcome.

Conversely, if the current rates of decrease in the incidence of mortality by age on the population of Spain are maintained, **life expectancy at birth is set to reach 84.3 years in males and 89.9 in females in 2048**, with an increase since 2007 of 6.5 and 5.8 years, respectively. Nevertheless, the greater population size and an increasingly aged demographic structure are set to result in an ongoing growth in the annual number of deaths.

Thus, the balance between births and deaths is set to enter a period of continually decreasing dynamics. Indeed, the aforementioned natural surplus, having reached its maximum in recent decades in 2008, is set to become negative from 2020 onwards, which would imply an abrupt halt to population growth.

### Projected natural growth

Years	Births	Deaths	Natural growth
2009-2018	4,801,676	4,120,462	681,214
2019-2028	4,188,170	4,383,448	-195,278
2029-2038	4,325,747	4,679,220	-353,474
2039-2048	4,560,425	5,224,559	-664,134

Source: Long-Term Population Projection

### Birth-rate Indicators

Years	woman	Average age of the mother	
2007		1.40	30.83
2008		1.46	30.82
2009		1.44	30.87
2018		1.54	30.92
2028		1.61	30.98
2038		1.67	31.00
2048		1.71	31.02

Source: Average number of children per woman 2007- 2008, Basic Demographic Indicators (2008 Provisional); Average number of children per woman 2009-2049, Long-Term Population Projection Average age at maternity 2007, Basic Demographic Indicators; Average age of the mother 2008-2049, Long-Term Population Projections;

### Mortality indicators

Years	Life expectancy at birth		Life Expectancy at age 65 years old	
	Males	Females	Males	Females
2007	77.77	84.11	17.68	21.65
2008	77.81	84.20	17.71	21.69
2009	78.01	84.37	17.82	21.81
2018	79.70	85.84	18.81	22.91
2028	81.39	87.32	19.88	24.06
2038	82.91	88.66	20.91	25.14
2048	84.31	89.89	21.90	26.15

Source: Life Expectancy 2002 - 2007, Mortality tables for Spain; Life Expectancy 2008-2048, Long-Term Population Projections

With regard to the migration phenomenon, in the short term (the next 10 years), the projection was made based on a hypothesis of a decreasing flow of foreign immigrants, to 3.8 million between 2009 and 2019, one million fewer than observed between 2002 and 2008. Since 2019, the results have corresponded to a constant annual flow of 400 thousand immigrants.

Thus, the long-term extension of foreign emigration behaviour, closely linked to the prior arrival of immigrants, is set to lead to Spain presenting a foreign migratory net balance of 2.6 million migrants during the next 40 years.

### Projected migratory growth

Year	Immigrants	Emigrants	Migratory balance
2009-2018	3,864,662	3,419,018	445,644
2019-2028	4,000,000	3,242,030	757,970
2029-2038	4,000,000	3,261,150	738,850
2039-2048	4,000,000	3,272,311	727,689

Source: Long-Term Population Projection

### Detailed results

The detailed results of the Long-Term Population Projection may be viewed at:

[INE, Long-Term Population Projections](#)

---

For further information see **INEbase-[www.ine.es](http://www.ine.es)** All press releases at: **[www.ine.es/prensa/prensa\\_en.htm](http://www.ine.es/prensa/prensa_en.htm)**

**Press Office:** Telephone numbers: 91 583 93 63 / 94 08 – Fax: 91 583 90 87 - [gprensa@ine.es](mailto:gprensa@ine.es)

**Information Area:** Telephone number: 91 583 91 00 – Fax: 91 583 91 58 – [www.ine.es/infoine](http://www.ine.es/infoine)

---

## Methodological note

A population projection consists of a statistical simulation of the population coming to reside in a specific territory at some point in the future, based on a series of evolution hypotheses for each basic demographic phenomenon determining the volume and structure thereof: birth-rate, mortality and migration. Validity of its results is logically conditioned by the aforementioned hypotheses being borne out in reality.

Compilation of population projections is a traditional objective for the INE. As of 2008, in order to adapt to the changing Spanish short-term demographics, the INE has been implementing a new strategy in the aforementioned issues, on the basis of the calculation of short- and long-term population projections, based on a calendar of annual and three-yearly periodic updates, respectively, enabling suitable updating of their results in relation to the most recent demographic development and the latest available information.

The National Statistics Institute disseminates at this time the results for the first Long-Term Projection of the Population of Spain of this new phase, the objective of which is to **simulate future evolution of the demographic size and structure of the population set to reside in Spain during the forthcoming 40 years, should the currently observed demographic trends and behaviour be prolonged over time**. According to this interpretation, this projection constitutes an extension in the long-term, and for the national level of the recently published Short-Term Population Projection (in ten years' time).

The general calculation methodology is based on the *classical component method*. The application of the aforementioned method is in response to the following schema: starting from the resident population in a certain geographical area and the retrospective observation for each one of the basic geographical components (mortality, birth-rate and migration), the idea is to obtain resident population figures corresponding to subsequent dates under certain hypotheses on the future of these three phenomena, which are those which determine their growth and their structure by age.

The component method has been applied according to a *multiregional projection model*<sup>1</sup>, which enables the total coherence between demographic flows and population stocks.

The methodological orientations and the projection hypotheses have been discussed and presented at the heart of the Population Figures and Projections Working Group (Figures Committee, Censuses of 2011 and Population Projections), with the participation of several ministerial units of statistics, analysis and forecasts, the Bank of Spain, business and trade union organisations, and statistics offices of the Autonomous Communities and the Spanish Federation of Municipalities and Provinces.

**Reference date of the results:** 1 January of each year of the 2009-2049 period for population stocks; annual demographic flows of the 2009-2048 period for demographic events.

**Population scope:** population resident in Spain.

---

<sup>1</sup> Willekens, F.J. and Drewe, P. (1984) "A multiregional model for regional demographic projection", in Heide, H. and Willekens, F.J. (ed) *Demographic Research and Spatial Policy*, Academic Press, London.

**Territorial scope:** Spain.

**Breakdown variables:** sex, age and generation, for both population stocks and demographic events.

**Entry population:** the Population Now Cast at 1 January 2009.