

19 November 2009

## **Short-Term Population Projection for Spain, 2009-2019**

# The population resident in Spain will increase by 1.1 million inhabitants in the next 10 years

# The annual migratory balance will stand, in 2009, below 80 thousand persons

The Short-Term Population Projection compiled by the INE for the 2009-2019 period contemplates a **slowing of the growth rate of the population resident** in Spain, which would decrease from the annual 1.2% registered in 2008 to 0.3% in 2010. Beginning in said year, and until the year 2018, the rate would stabilise.

Thus, compared with an average annual growth rate of 695 thousand inhabitants during the 2002-2008 period, according to the hypotheses proposed, in the next 10 years, the population resident in Spain would experience an average annual increase of approximately 113 thousand inhabitants. Thus, after some years of elevated demographic dynamism, Spain would barely reach 47 million inhabitants in 2019.

**Growth of the population of Spain** 

Year	Population resident at 1 January	Population growth				
		Absolute	Relative (%)			
2002	40,964,244	699,458	1.71			
2003	41,663,702	681,640	1.64			
2004	42,345,342	692,693	1.64			
2005	43,038,035	720,215	1.67			
2006	43,758,250	716,381	1.64			
2007	44,474,631	808,628	1.82			
2008	45,283,259	544,913	1.20			
2009	45,828,172	189,388	0.41			
2010	46,017,560	126,344	0.27			
2011	46,143,904	114,070	0.25			
2012	46,257,974	99,114	0.21			
2013	46,357,088	105,107	0.23			
2014	46,462,195	104,863	0.23			
2015	46,567,058	101,541	0.22			
2016	46,668,600	97,752	0.21			
2017	46,766,352	94,905	0.20			
2018	46,861,257	93,773	0.20			
2019	46,955,030					

Source:2002-2008, Population Now Cast; 2009-2019, Short-Term Projection of the Population

## **Natural growth**

After having registered the maximum natural growth of the last two decades in 2008, with a favourable difference of 133 thousand persons of births over deaths, Spain would experience a decrease to a surplus annual natural growth of 16,700 persons in the 2018 horizon, according to the forecasts established in this projection.

The Synthetic Birth Index (or average number of children per woman) would maintain its growth rate, from 1.46 in 2008 to 1.54 in 2018, due, in part, to the effect of the foreign population that has been observed in recent years. The contribution of immigrant women, who have children at younger ages, would also explain how the average age at maternity stands at approximately 31 years old.

However, the growth expected in the fertility of the women resident in Spain would not be sufficient to prevent the decrease in the absolute number of births, as a result of the fact that the generations of women of childbearing age will be less and less numerous. In fact, it is expected that, **beginning with the current year, a gradual reduction in the annual number of births will occur** in the coming decade.

Life expectancy at birth will increase almost two years for males and 1.6 years for females. In turn, the annual number of deaths will grow slightly in the coming years, to stand at around 427 thousand in 2018.

Natural growth of the population of Spain

Year	Births	Deaths	Natural growth	Gross rates per 1000 inhabitants				
				Birth	Mortality	Natural growth		
2002	418,846	368,618	50,228	10.14	8.92	1.22		
2003	441,881	384,828	57,053	10.52	9.16	1.36		
2004	454,591	371,934	82,657	10.65	8.71	1.94		
2005	466,371	387,355	79,016	10.75	8.93	1.82		
2006	482,957	371,478	111,479	10.96	8.43	2.53		
2007	492,527	385,361	107,166	10.95	8.57	2.38		
2008	518,967	385,954	133,013	11.38	8.47	2.91		
2009	509,164	395,643	113,521	11.09	8.62	2.47		
2010	506,291	399,586	106,705	10.99	8.67	2.32		
2011	501,304	403,459	97,844	10.85	8.73	2.12		
2012	494,749	407,265	87,484	10.68	8.79	1.89		
2013	487,003	410,946	76,057	10.49	8.85	1.64		
2014	478,500	414,472	64,028	10.29	8.91	1.38		
2015	469,513	417,805	51,708	10.07	8.96	1.11		
2016	460,394	420,938	39,456	9.85	9.01	0.84		
2017	451,515	423,831	27,685	9.64	9.05	0.59		
2018	443,243	426,517	16,726	9.45	9.09	0.36		

Source: 2002-2007, Vital Statistics; 2008, Provisional results of the Vital Statistics; 2009-2018, Short-Term Projection of the Population

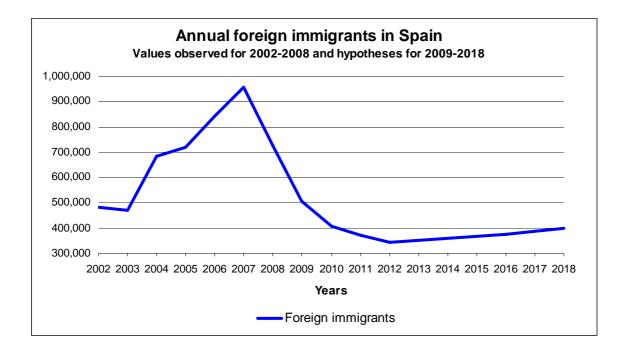
#### Migratory growth

Foreign migration constitutes the most volatile and uncertain component of future demographic development. In recent years, it has been the key factor in the population increase in Spain, representing between 75.6% and 92.8% of the annual growth between 2002 and 2008.

Nonetheless, and according to the projection compiled by the INE, **the immigration flow will decrease in the coming years**, from the historical annual maximum of 958 thousand immigrants registered in 2007 to 345 thousand in 2012.

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Beginning in 2012, bearing in mind that immigration is a phenomenon that maintains a strong inertia, the projection establishes a horizon of 400 thousand immigrants in 2018, forecasting a stable evolution of the annual entry flow of population from abroad until said year. With this, considering the importance acquired by the phenomenon of foreign emigration, it is assumed that there will be a stabilisation of net foreign migration.



The migratory balance projected for the 2009-2018 period will stand below 80 thousand net migrants in all years.

Projected hypothesis of foreign migration in Spain

	71	<u> </u>	<u> </u>
Year	Immigrants	Emigrants	Migratory Balance
2009	504,803	428,936	75,867
2010	406,874	387,235	19,639
2011	370,443	354,217	16,226
2012	344,856	333,226	11,630
2013	350,553	321,504	29,050
2014	357,648	316,812	40,836
2015	366,140	316,306	49,834
2016	376,029	317,733	58,297
2017	387,316	320,096	67,220
2018	400,000	322,954	77,046

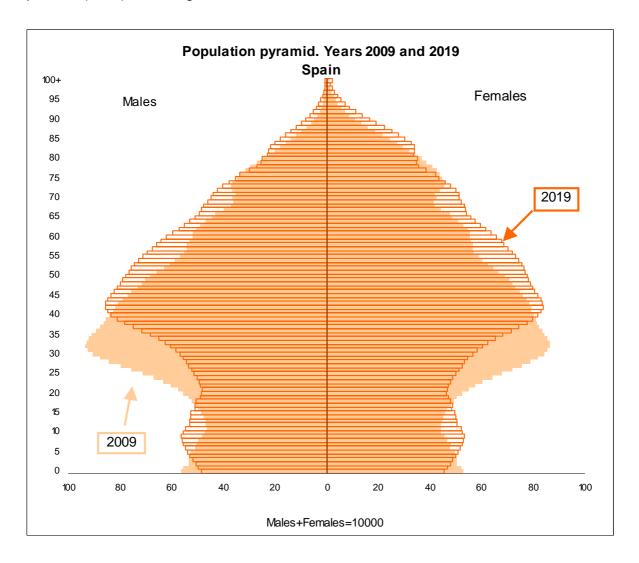
Source: Short-Term Projection of Population

### **Evolution of the structure by age**

By age, the greatest population increase would occur in those over 64 years of age, with growth of 1.29 million persons (16.9%) in the coming decade. In this way, this age

group would come to represent 19.0% of the total inhabitants in Spain in 2019, as compared with the 16.6% observed currently.

The population 16 to 64 years old would decrease by 754 thousand persons (2.4%) in the next 10 years. In turn, children under 15 years of age would increase by 595 thousand persons (8.3%), reflecting the recent increase in births.



Faced with this evolution of the population pyramid of Spain, **the dependency rate** (understood as the relationship between the population under 16 years old or over 64 years old, and the population aged 16 to 64 years old) will continue its rising trend, and **will increase from 47% to approximately 55%** at the end of the next decade.

#### **Population growth by Autonomous Community**

The effect of the hypotheses formulated regarding the entry population yields that the Autonomous Communities with the most intense relative demographic growth in the coming decade will be Castilla-La Mancha (11.4%), Región de Murcia (9.2%), Illes Balears (7.8%), Comunitat Valenciana (7.3%) and Canarias (7.2%).

Thus, the mainland South-central and East coast zones, and the island territories, would comprise the areas of greatest demographic dynamism during the next 10 years.

Conversely, **several Spanish regions would see a decrease in population**. Among them, worth noting are Principado de Asturias, País Vasco and Galicia, with decreases greater than 3.0%. In these three Autonomous Communities, the generalised decrease of the natural increase would not be compensated by the contribution of foreign and domestic migration.

# **Population growth by Autonomous Community**

Autonomous Community	Population resi	ident at 1 Januai	Relative (%)			
<u> </u>	2002	2009	2019	2002-2008	2009-2018	
National total	40,964,244	45,828,172	46,955,030	11.87	2.46	
Andalucía	7,360,469	8,150,467	8,466,202	10.73	3.87	
Aragón	1,203,660	1,313,735	1,369,246	9.15	4.23	
Asturias (Principado de)	1,061,942	1,058,923	1,006,202	-0.28	-4.98	
Balears (Illes)	872,836	1,070,066	1,153,703	22.60	7.82	
Canarias	1,779,169	2,076,585	2,225,237	16.72	7.16	
Cantabria	534,915	576,418	581,841	7.76	0.94	
Castilla y León	2,454,546	2,510,545	2,461,394	2.28	-1.96	
Castilla-La Mancha	1,760,162	2,022,647	2,252,622	14.91	11.37	
Cataluña	6,343,786	7,290,292	7,274,534	14.92	-0.22	
Comunitat Valenciana	4,163,094	4,991,789	5,355,803	19.91	7.29	
Extremadura	1,058,148	1,080,439	1,069,041	2.11	-1.05	
Galicia	2,693,733	2,738,930	2,654,211	1.68	-3.09	
Madrid (Comunidad de)	5,426,248	6,295,011	6,325,753	16.01	0.49	
Murcia (Región de)	1,198,606	1,443,383	1,575,833	20.42	9.18	
Navarra (Comunidad Foral de)	555,879	614,526	643,363	10.55	4.69	
País Vasco	2,082,258	2,136,061	2,067,942	2.58	-3.19	
Rioja (La)	276,679	315,718	325,217	14.11	3.01	
Ceuta	71,585	72,561	72,749	1.36	0.26	
Melilla	66,529	70,076	74,137	5.33	5.80	

Source: 2002-2008, Population Now Cast; 2009-2019, Short-Term Population Projection

One of the most relevant results of this Short-Term Population Projection for Spain is that, in the coming decade, the number of deaths would surpass the number of births in eight Autonomous Communities (Galicia, Castilla y León, Principado de Asturias, País Vasco, Extremadura, Aragón, Cantabria and La Rioja).

# Natural growth projected by Autonomous Community

Autonomous Community	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National total	113,521	106,705	97,844	87,484	76,057	64,028	51,708	39,456	27,685	16,726
Andalucía	32,310	31,617	30,471	28,952	27,138	25,107	22,925	20,667	18,406	16,209
Aragón	-209	-235	-327	-471	-653	-857	-1,075	-1,297	-1,508	-1,700
Asturias (Principado de)	-4,768	-4,944	-5,147	-5,371	-5,608	-5,853	-6,099	-6,340	-6,568	-6,779
Balears (Illes)	4,837	4,658	4,456	4,237	4,006	3,769	3,528	3,288	3,057	2,840
Canarias	6,480	6,026	5,507	4,941	4,342	3,724	3,097	2,467	1,846	1,242
Cantabria	15	-44	-137	-259	-404	-564	-736	-913	-1,088	-1,257
Castilla y León	-6,896	-7,202	-7,584	-8,026	-8,515	-9,033	-9,565	-10,098	-10,611	-11,090
Castilla-La Mancha	3,971	4,008	3,926	3,745	3,484	3,165	2,805	2,423	2,042	1,676
Cataluña	24,402	22,681	20,712	18,615	16,468	14,358	12,328	10,431	8,730	7,273
Comunitat Valenciana	15,065	14,531	13,717	12,688	11,499	10,209	8,861	7,499	6,178	4,940
Extremadura	-670	-771	-905	-1,066	-1,250	-1,450	-1,662	-1,879	-2,095	-2,303
Galicia	-8,140	-8,533	-9,031	-9,620	-10,290	-11,024	-11,802	-12,602	-13,399	-14,174
Madrid (Comunidad de)	33,685	32,250	30,528	28,642	26,671	24,692	22,738	20,853	19,091	17,495
Murcia (Región de)	9,151	9,087	8,939	8,723	8,456	8,151	7,820	7,478	7,139	6,818
Navarra (Comunidad Foral de)	1,642	1,563	1,453	1,320	1,170	1,008	840	670	507	356
País Vasco	769	200	-464	-1,200	-1,984	-2,794	-3,606	-4,397	-5,145	-5,834
Rioja (La)	551	505	446	378	303	224	145	67	-6	-72
Ceuta	609	600	590	578	566	553	540	526	512	499
Melilla	718	709	694	678	660	643	627	612	599	588

Source: Short-Term Projection of Population

## Migratory balance by Autonomous Community

Foreign migration will have a contribution to the demographic growth of each Autonomous Community, but this will be less than that registered in previous years.

In fact, the migratory balance would be negative in some years, for the projected period, in Cataluña, País Vasco, La Rioja, Comunidad de Madrid and the autonomous city of Ceuta, as is reflected by the projected evolution of the net migration rate (net foreign migrants per one hundred thousand inhabitants).

Projected gross rate of net foreign migration, by Autonomous Community

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Autonomous Community	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National total	0.17	0.04	0.04	0.03	0.06	0.09	0.11	0.12	0.14	0.16
Andalucía	0.15	0.05	0.02	0.00	0.01	0.01	0.00	0.00	0.00	-0.01
Aragón	0.77	0.53	0.45	0.38	0.38	0.38	0.38	0.38	0.38	0.39
Asturias (Principado de)	0.09	0.03	0.01	0.00	0.01	0.01	0.00	0.00	-0.01	-0.01
Balears (Illes)	0.37	0.16	0.13	0.11	0.16	0.20	0.23	0.26	0.30	0.34
Canarias	0.69	0.51	0.44	0.39	0.40	0.40	0.40	0.39	0.39	0.39
Cantabria	0.23	0.12	0.09	0.06	0.07	0.07	0.07	0.06	0.06	0.06
Castilla y León	0.38	0.24	0.20	0.16	0.17	0.17	0.17	0.17	0.17	0.17
Castilla-La Mancha	0.55	0.34	0.27	0.21	0.21	0.21	0.20	0.20	0.20	0.20
Cataluña	-0.38	-0.43	-0.35	-0.30	-0.20	-0.12	-0.05	0.01	0.07	0.14
Comunitat Valenciana	0.46	0.26	0.22	0.18	0.22	0.24	0.26	0.27	0.29	0.31
Extremadura	0.18	0.09	0.05	0.01	0.00	-0.02	-0.04	-0.07	-0.09	-0.11
Galicia	0.20	0.15	0.15	0.14	0.15	0.15	0.14	0.14	0.13	0.12
Madrid (Comunidad de)	0.03	-0.09	-0.06	-0.05	0.03	0.09	0.14	0.19	0.24	0.29
Murcia (Región de)	0.39	0.20	0.16	0.12	0.14	0.15	0.16	0.17	0.18	0.19
Navarra (Comunidad Foral de)	0.34	0.19	0.15	0.12	0.14	0.15	0.15	0.15	0.16	0.17
País Vasco	-0.08	-0.14	-0.13	-0.13	-0.10	-0.09	-0.08	-0.07	-0.06	-0.05
Rioja (La)	-0.05	-0.16	-0.15	-0.14	-0.07	-0.03	0.01	0.05	0.08	0.12
Ceuta	0.13	0.07	0.04	0.02	0.02	0.01	-0.01	-0.03	-0.05	-0.07
Melilla	0.51	0.31	0.27	0.23	0.26	0.28	0.29	0.30	0.31	0.33

# Methodological note

In recent decades, population projections have become consolidated as an exercise enabling the revision of recent demographic trends, and the compilation, from the same, of a simulation of the future demographic evolution of the country. Said results are derived from a behaviour hypothesis for each one of the phenomena that determine the volume and structure of the population: fertility, mortality and migration. The validity of the same is logically conditioned by said hypotheses eventually being confirmed empirically.

Each year, the INE prepares Short-Term Population Projections (for the following ten years) for the purpose of adapting to the changing short-term Spanish demographics, through the continuous updating of its results regarding the most recent demographic development and the latest available information. This work is complemented with the Long-Term Population Projections, which are updated every three years.

The National Statistics Institute is now disseminating the results of the 2009 annual exercise of the Short-Term Population Projection for Spain, in accordance with the hypothesis of foreseeable evolution for each one of the basic demographic phenomena. The objective is to provide a preview of the population to be resident in Spain, its Autonomous Communities and provinces over the next ten years, as well as of the evolution of each of the basic demographic phenomena in each of those territorial scopes for each year of the forecast period.

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 data observed for each one of the basic demographic components (mortality, fertility and migration), the idea is to obtain the figures on the resident population, corresponding to subsequent dates, under certain hypotheses on the development 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 consistency of results at all territorial levels considered, and the coherence necessary 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.

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

**Reference date of the results**: 1 January of each year of the 2009-2019 period for population stocks; annual demographic flows of the 2009-2018 period for demographic events.

**Population scope**: the population resident in Spain and in each of its Autonomous Communities and provinces.

**Territorial scope**: Spain, Autonomous Communities and provinces.

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

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

#### **Provincial results**

The provincial and remaining detailed results of the Short-Term Population Projection may be viewed at:

http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft20%2Fp269&file=inebase&L=1