

Resident population at NUTS-2 level: new series of estimates for the January 1st 2002-2014 period

Istat releases “new series of estimates on the resident population at NUTS-2 level for the 1/1/2002-1/1/2014 period” (table 1), to be used as a reference for the main macroeconomic aggregates and indicators.

The gap occurred in occasion of the last Census (October 9th 2011) between the legal population (published in the Official Journal of the Italian Republic no. 209 of December 18th 2012) and the registered population, in terms of overcoverage and undercoverage, has determined a revision process of the population registers in every municipality that took place in the post-census period, as stated in the Article 46 of the Population Register law. To this regard, after the closing of the Census operations, Istat has provided Municipalities with an online information system (Sistema Revisione Anagrafi - SIREA) that allows to review the Population Registers on the basis of the Census results.

Differently from the previous experiences, the 15th Population Census has been characterized by a strong reduction of the timing, in particular with regard to the: a) release of the Legal population (4 months earlier compared to 2001); b) release of the “intercensal population estimates for the period 2001-2011” (15 months earlier compared to the previous one); c) revision of the Population Registers through the SIREA system.

With regard to the latter point, the efficiency of the SIREA system in allowing the Municipalities to rectify the Population Register has resulted in a significant recovery, in 2012 and moreover in 2013, of resident persons to be enrolled (i.e. people not censused but to be actually counted as resident), and then a sharp rise of the resident population in the post-census time due not to real demographic events but to purely administrative procedures¹.

The new series of regional population estimates on January 1st 2002-2014 have been produced in order to take under control the bias due to post-census revisions. The new series represent the basis for the National accounts statistics and, in particular, for the definition of the 2011 benchmark in the Esa2010 framework of. Furthermore, the new series are going to be implemented in some relevant sample surveys: mainly the Labour force survey. The release of the revised labour force statistics for the 2002-2014 period is expected on March 2nd 2015.

On the other hand, the legal population as of October 9th 2011 still maintains the role of “administrative certification” for different legal purposes, including the demographic consistency of electoral colleges, the achievement of the Internal Stability Pact, the definition of the voting system for local elections and other measures at national and local level. Those are the reasons why the Census Population is defined as “legal population” and why it was the reference for the official intercensal population estimates for the 2001-2011 period and the jump off for the calculated population in the post-census years.

The two population series released by Istat (namely: 1. the dataset joining the intercensal estimates 2001-2011 and the post-census flows registered from October 9th 2011 up to December 31st 2013; 2. the new regional population estimates for the period 2002-2014, January 1st, released today) converge on January

¹ To overcome this problem, Istat is planning a permanent census, to be carried out yearly.

1st 2014, once the operations of revision of the Population Registers (SIREA system) were officially concluded².

Table 1 shows the population totals at regional level of the new series of estimates for the period 2002-2014. Further breakdowns by region, sex, five age groups and citizenship (national/non-national) are available in the file attached to this report (in Italian only).

From a methodological perspective, the new regional population estimates come from a joint exploitation of three data sources: the Post Enumeration Survey (PES)³, the demographic flows occurred after the Census and the SIREA information system.

The PES has been carried out over a sample of about 329,000 persons living in households. A net undercoverage of 642,097 persons at national level has been estimated (Table 2), equal to 1.07% of the legal population (excluding people living in institutions). PES results have been then used to revise the amount of the resident population living in households on October 9th 2011, adding up the net undercoverage to the legal population.

In 2012-2013 SIREA information system results in 989,107 non-censused persons that should have been enumerated (but effectively resident) against 191,047 censused persons that should not have been enumerated (for lack of requirements for the residence). The net balance results then equal to 798,060.

The crude difference between the net undercoverage obtained from the PES survey and the SIREA outcome is equal to 155,963. From this latter number 75,636 individuals have to be excluded because out of the scope of the PES survey (namely, persons resident on October 9th 2011 and deceased or emigrated abroad after the Census). The final result gives an estimate of 80,327 units, equal to 0.14% of the legal population.

² From January 1st 2014 onward, the population system of accounts proceeds following the approach based on Census stocks and demographic flows, collecting the necessary statistical information to fulfill the data provisions to Eurostat (Regulations 862/2007 and 1260/2013).

³ The Post Enumeration Survey is ruled by the European Commission (Commission Regulation no. 1151/2010).

TABLE 1 - TOTAL RESIDENT POPULATION BY REGION, JANUARY 1ST, 2002-2014

Regions/ Geographical areas	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Piemonte	4,212,943	4,224,969	4,264,706	4,287,116	4,299,459	4,310,608	4,362,376	4,392,077	4,403,369	4,411,204	4,419,273	4,433,109	4,436,798
Valle d'Aosta	119,362	120,427	121,632	123,056	124,136	124,892	125,832	126,690	127,061	127,190	127,417	128,003	128,591
Lombardia	9,034,608	9,083,384	9,175,147	9,303,299	9,376,649	9,438,448	9,523,659	9,608,964	9,674,107	9,747,214	9,818,974	9,897,972	9,973,397
Trentino-Alto Adige	939,748	948,685	958,713	970,362	980,378	990,560	1,002,947	1,013,869	1,022,289	1,030,130	1,037,727	1,044,950	1,051,951
Veneto	4,529,581	4,565,657	4,625,594	4,678,832	4,714,504	4,744,742	4,802,430	4,850,129	4,868,031	4,881,720	4,896,016	4,914,328	4,926,818
Friuli-Venezia Giulia	1,183,509	1,188,931	1,195,183	1,200,368	1,203,028	1,207,487	1,216,615	1,224,087	1,224,649	1,224,373	1,223,731	1,226,958	1,229,363
Liguria	1,570,155	1,568,004	1,573,183	1,581,282	1,582,267	1,582,745	1,585,526	1,591,623	1,592,981	1,592,911	1,591,843	1,593,643	1,591,939
Emilia-Romagna	4,003,408	4,034,770	4,081,192	4,130,630	4,164,330	4,196,981	4,249,115	4,308,348	4,342,638	4,372,428	4,395,968	4,423,051	4,446,354
Toscana	3,499,651	3,513,953	3,544,501	3,576,267	3,595,071	3,613,083	3,652,802	3,685,448	3,708,192	3,726,529	3,737,204	3,747,134	3,750,511
Umbria	826,197	830,973	841,769	849,811	855,585	859,108	870,504	879,494	885,086	889,527	891,406	895,116	896,742
Marche	1,453,553	1,464,745	1,481,702	1,493,815	1,502,686	1,509,116	1,526,422	1,542,389	1,547,254	1,549,952	1,551,850	1,554,261	1,553,138
Lazio	5,118,873	5,142,562	5,186,741	5,243,785	5,281,681	5,321,553	5,395,636	5,464,065	5,514,692	5,562,995	5,620,949	5,758,642	5,870,451
Abruzzo	1,262,440	1,267,754	1,278,836	1,287,241	1,293,282	1,297,219	1,312,260	1,322,720	1,326,972	1,329,021	1,331,913	1,334,520	1,333,939
Molise	320,149	320,286	320,265	319,653	318,510	317,486	317,966	317,319	315,952	314,811	314,141	314,633	314,725
Campania	5,700,434	5,706,062	5,733,029	5,761,523	5,765,934	5,768,539	5,787,358	5,793,935	5,808,411	5,822,645	5,833,491	5,852,637	5,869,965
Puglia	4,020,988	4,025,815	4,035,335	4,048,536	4,053,981	4,058,014	4,071,677	4,080,402	4,089,990	4,101,218	4,103,430	4,096,112	4,090,266
Basilicata	597,147	595,226	594,463	593,108	590,052	586,477	585,772	584,584	582,335	580,732	579,529	579,039	578,391
Calabria	2,008,217	2,000,114	2,000,875	1,992,563	1,982,417	1,972,583	1,980,073	1,977,779	1,974,440	1,972,058	1,970,735	1,974,775	1,980,533
Sicilia	4,967,758	4,965,929	4,977,521	4,986,137	4,992,388	4,997,259	5,016,517	5,031,959	5,045,007	5,059,523	5,066,445	5,080,904	5,094,937
Sardegna	1,630,159	1,631,921	1,634,567	1,637,318	1,640,142	1,643,326	1,648,993	1,653,376	1,653,829	1,655,778	1,655,984	1,660,431	1,663,859
Aut. Province Bolzano	462,878	466,979	470,648	475,409	480,477	485,684	491,727	496,545	500,618	504,425	508,340	511,899	515,714
Aut. Province Trento	476,870	481,706	488,065	494,953	499,901	504,876	511,220	517,324	521,671	525,705	529,387	533,051	536,237
North	25,593,314	25,734,827	25,995,350	26,274,945	26,444,751	26,596,463	26,868,500	27,115,787	27,255,125	27,387,170	27,510,949	27,662,014	27,785,211
<i>North-west</i>	14,937,068	14,996,784	15,134,668	15,294,753	15,382,511	15,456,693	15,597,393	15,719,354	15,797,518	15,878,519	15,957,507	16,052,727	16,130,725
<i>North-east</i>	10,656,246	10,738,043	10,860,682	10,980,192	11,062,240	11,139,770	11,271,107	11,396,433	11,457,607	11,508,651	11,553,442	11,609,287	11,654,486
Centre	10,898,274	10,952,233	11,054,713	11,163,678	11,235,023	11,302,860	11,445,364	11,571,396	11,655,224	11,729,003	11,801,409	11,955,153	12,070,842
South and the Islands	20,507,292	20,513,107	20,574,891	20,626,079	20,636,706	20,640,903	20,720,616	20,762,074	20,796,936	20,835,786	20,855,668	20,893,051	20,926,615
<i>South</i>	13,909,375	13,915,257	13,962,803	14,002,624	14,004,176	14,000,318	14,055,106	14,076,739	14,098,100	14,120,485	14,133,239	14,151,716	14,167,819
<i>Islands</i>	6,597,917	6,597,850	6,612,088	6,623,455	6,632,530	6,640,585	6,665,510	6,685,335	6,698,836	6,715,301	6,722,429	6,741,335	6,758,796
ITALY	56,998,880	57,200,167	57,624,954	58,064,702	58,316,480	58,540,226	59,034,480	59,449,257	59,707,285	59,951,959	60,168,026	60,510,218	60,782,668

TABLE 2 – MAIN RESULTS OF THE PES SURVEY

Regions	No. at Census (a)	No. estimated gross of overcoverage (b)	No. estimated net of overcoverage (c)	Gross Undercoverage (d=b-a)	Overcoverage (e)	Net undercoverage (f=d-e)
Piemonte	4,330,669	4,388,399	4,382,103	57,730	6,296	51,434
Valle d'Aosta	125,986	126,782	126,444	796	338	458
Lombardia	9,648,023	9,805,379	9,739,184	157,356	66,195	91,161
Bolzano	499,353	504,164	502,397	4,811	1,767	3,044
Trento	518,964	524,666	522,310	5,702	2,356	3,346
Veneto	4,817,382	4,872,438	4,849,982	55,056	22,456	32,600
Friuli-Venezia Giulia	1,208,411	1,214,516	1,212,259	6,105	2,257	3,848
Liguria	1,560,180	1,584,695	1,580,671	24,515	4,024	20,491
Emilia-Romagna	4,317,113	4,369,882	4,362,076	52,769	7,806	44,963
Toscana	3,655,672	3,722,904	3,718,567	67,232	4,337	62,895
Umbria	879,370	886,506	885,409	7,136	1,097	6,039
Marche	1,534,536	1,545,618	1,543,295	11,082	2,323	8,759
Lazio	5,474,327	5,590,105	5,563,280	115,778	26,825	88,953
Abruzzo	1,303,335	1,337,381	1,327,144	34,046	10,237	23,809
Molise	312,530	313,377	313,052	847	325	522
Campania	5,753,564	5,835,421	5,815,646	81,857	19,775	62,082
Puglia	4,042,843	4,122,902	4,094,730	80,059	28,172	51,887
Basilicata	576,420	578,951	577,909	2,531	1,042	1,489
Calabria	1,953,284	1,971,938	1,963,319	18,654	8,619	10,035
Sicilia	4,986,669	5,056,508	5,045,604	69,839	10,904	58,935
Sardegna	1,633,414	1,650,465	1,648,761	17,051	1,704	15,347
ITALY	59,132,045	60,002,997	59,774,142	870,952	228,855	642,097