

ALBANIA:
Population and deaths data
according to
INSTAT 2015
compared to
INSTAT 2001-2009

Eduard Kakarriqi

Alban Ylli

Bajram Dedja

In 2015,
INSTAT carried out a retrospectively re-estimation
of **annual 2001-2009 population data (total and gender-specific)** and **deaths data
(total and gender-specific)**
of Albania at country level only.

The main reason concerning re-estimation of
the annual 2001-2009 population data
consisted on 2011 population census data
(around 350,000 inhabitants less compared to the 2010 population projection).

Meanwhile, **the 2001-2009 deaths data**
were also retrospectively re-estimated
due to
the claimed conspicuous under-reporting rate of 2001-2009 annual deaths.

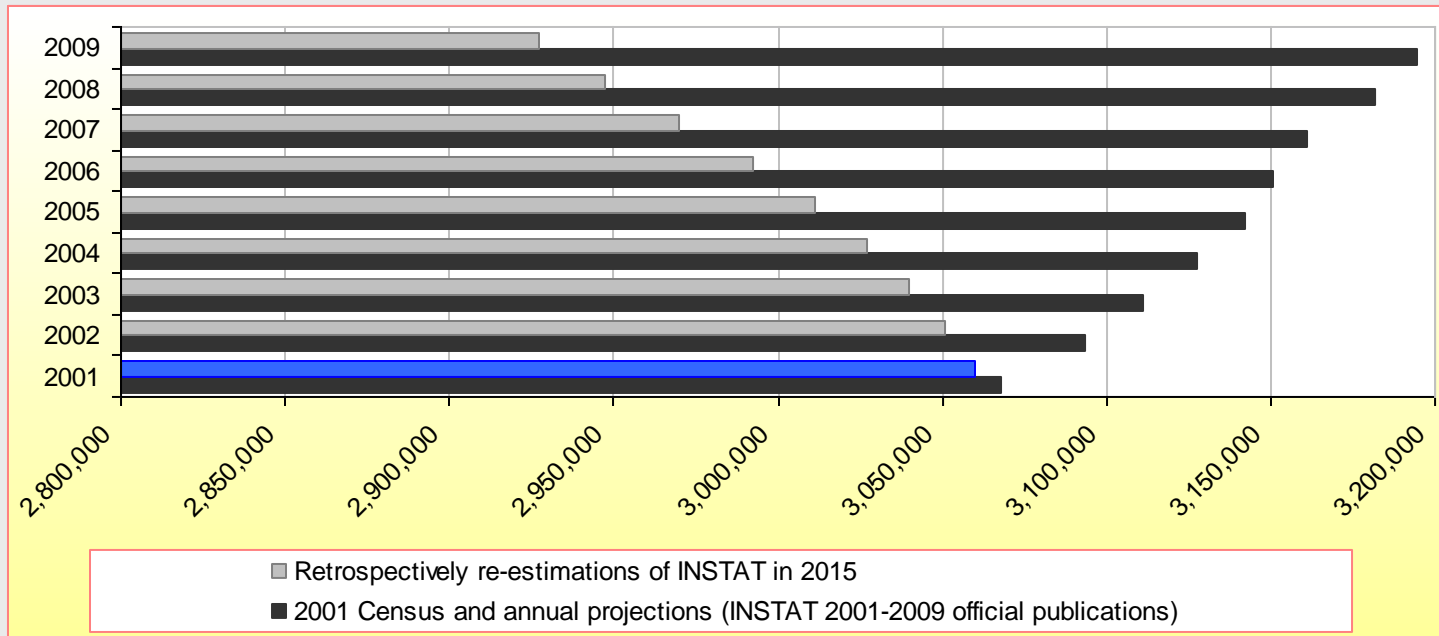
**ALBANIA:
Population data 2001-2009
according to
INSTAT 2015
compared to
INSTAT 2001-2009**

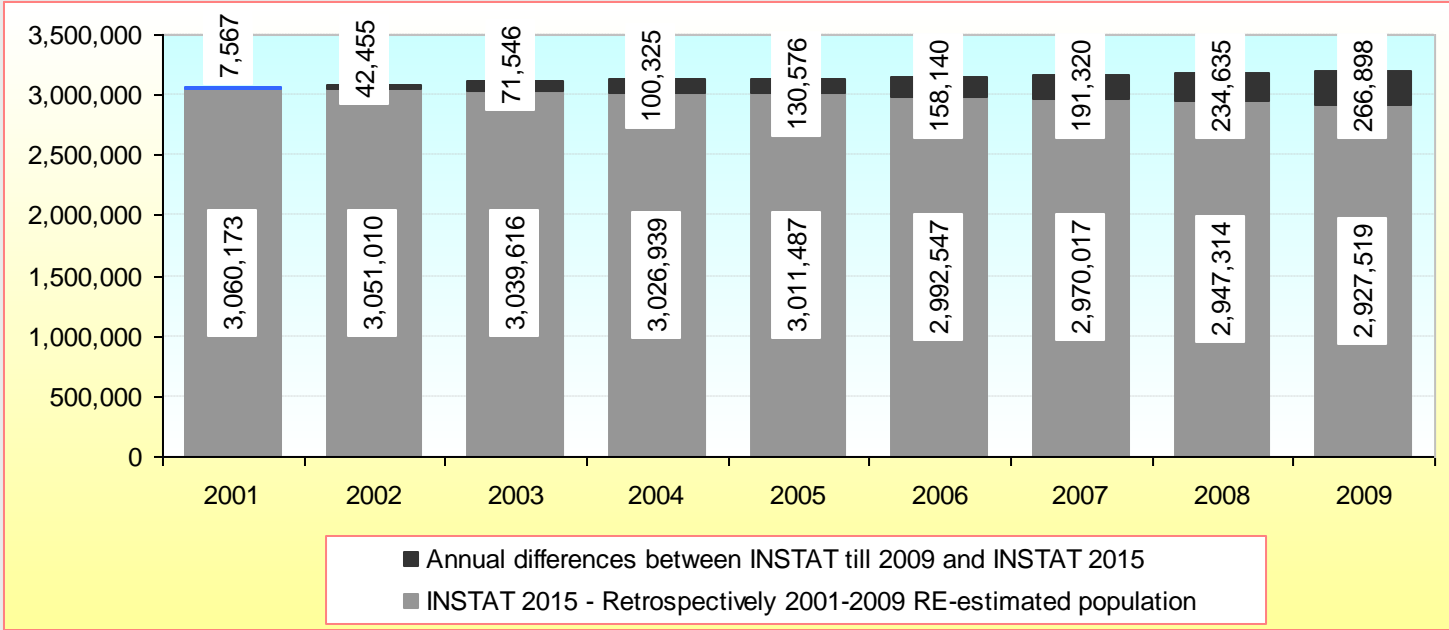
Population of Albania 2001-2009, according to 2001 census and consecutive INSTAT projections (until 2009) (INSTAT 2001-2009 annual official publications)				Population of Albania 2001-2009, according both to 2001 census and to retrospectively re-estimated projections by INSTAT in 2015 (displayed at INSTAT 2015 website)			
Years	Total	Males	Females	Years	Total	Males	Females
2001	3,067,740	1,529,682	1,538,058	2001	3,060,173	1,525,981	1,534,197
2002	3,093,465	1,542,213	1,551,252	2002	3,051,010	1,521,639	1,529,374
2003	3,111,162	1,550,728	1,560,434	2003	3,039,616	1,516,286	1,523,336
2004	3,127,264	1,558,377	1,568,887	2004	3,026,939	1,510,325	1,516,616
2005	3,142,063	1,565,316	1,576,747	2005	3,011,487	1,503,129	1,508,361
2006	3,150,687	1,580,245	1,570,442	2006	2,992,547	1,494,342	1,498,208
2007	3,161,337	1,587,496	1,573,841	2007	2,970,017	1,483,618	1,486,402
2008	3,181,949	1,585,523	1,596,426	2008	2,947,314	1,472,669	1,474,650
2009	3,194,417	1,599,047	1,595,370	2009	2,927,519	1,463,539	1,463,983

Difference of population of Albania in 2001-2009
between retrospectively re-estimations by INSTAT in 2015
and its annual official publications 2001-2009

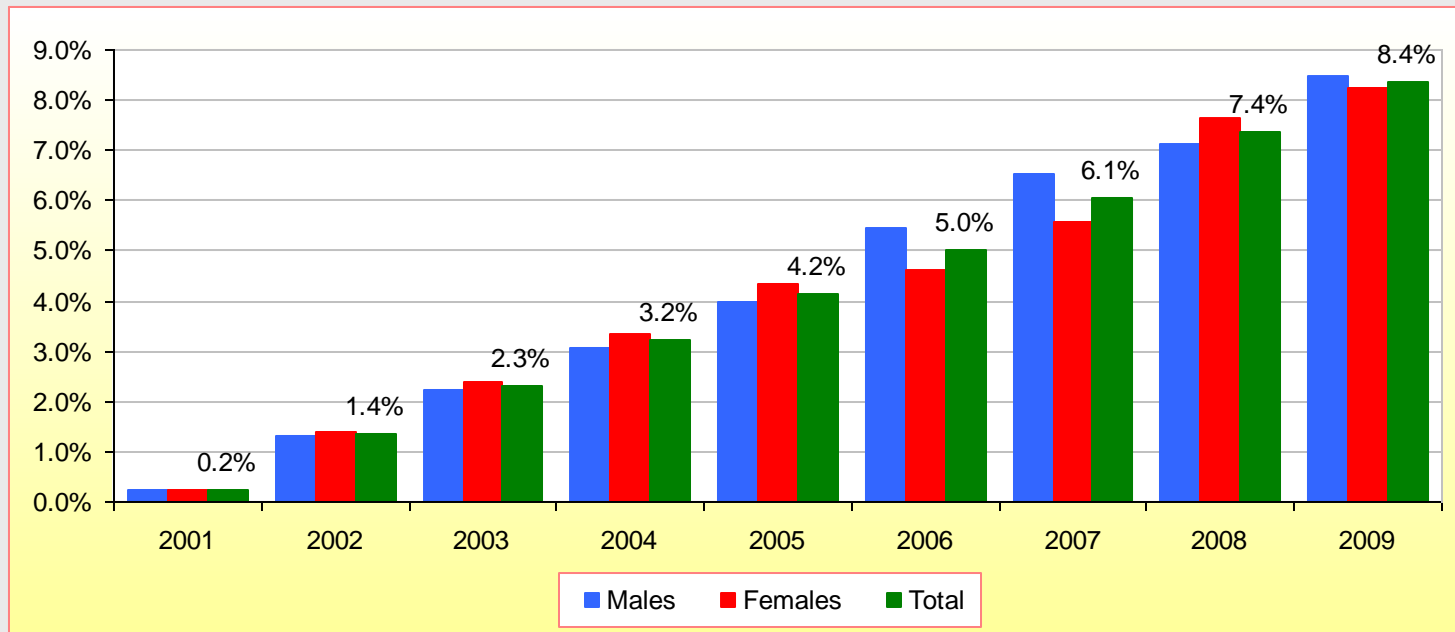
Years	Total	Males	Females
2001	-7,567	-3,701	-3,861
2002	-42,455	-20,574	-21,878
2003	-71,546	-34,442	-37,098
2004	-100,325	-48,052	-52,271
2005	-130,576	-62,187	-68,386
2006	-158,140	-85,903	-72,234
2007	-191,320	-103,878	-87,439
2008	-234,635	-112,854	-121,776
2009	-266,898	-135,508	-131,387

Population of Albania 2001-2009,
 according to 2001 census and consecutive INSTAT projections (until 2009)
 (INSTAT 2001-2009 annual official publications),
 and that on the basis of retrospectively re-estimated projections by INSTAT in 2015 (displayed at INSTAT 2015 website)





What percentage less it turns the population of Albania in each year of the 2001-2009 period between INSTAT retrospectively re-evaluations in 2015 and INSTAT 2001-2009 annual official publications

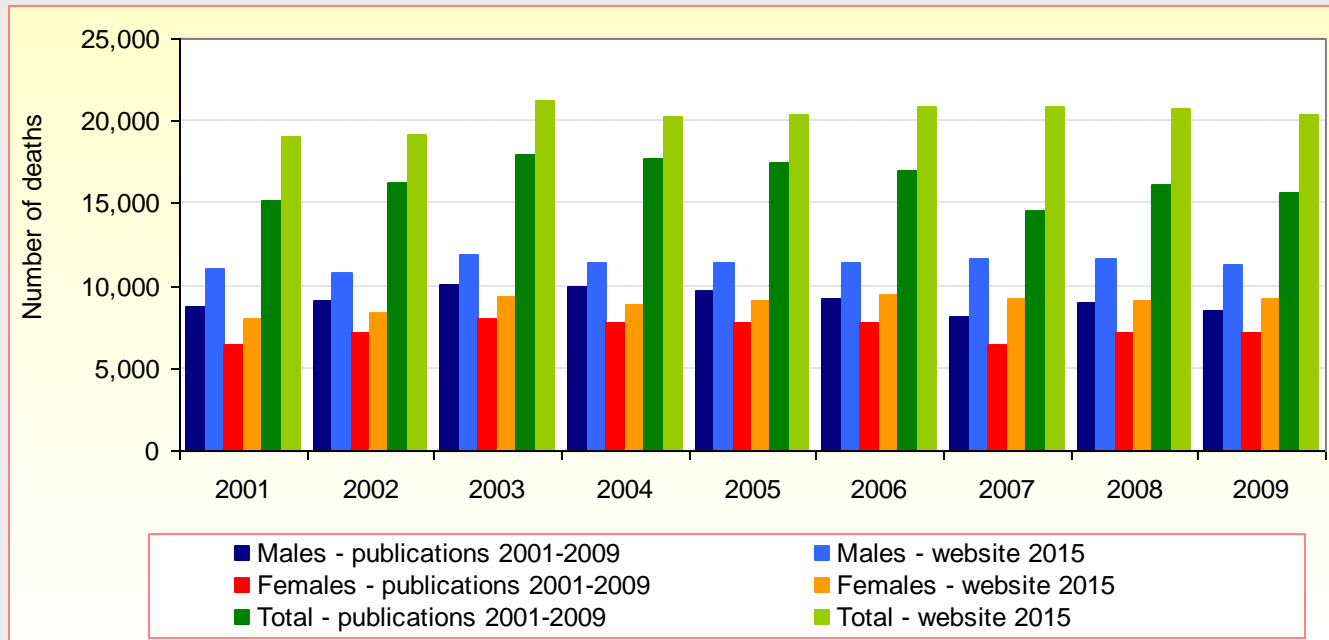


- ▶ Annual population 2001-2009 data of Albania on the basis of the 2001 census and INSTAT projections until 2009
(displayed in the 2001-2009 annual official publications of INSTAT)
result to be 42,455 inhabitants in 2002 to 266,898 ones in 2009 less than the respective annual retrospectively re-estimated projections of INSTAT in 2015 (displayed in the 2015 INSTAT website page).
- ▶ Surprisingly, even the 2001 census population (3,067,740) was re-estimated in 2015 as 3,060, 173 population, that is, 7,567 inhabitants less (???)
- ▶ Otherwise saying, the population of Albania in each year of the 2001-2009 results of a decrease from 0.3% in 2001 to 8.2% in 2009 between retrospectively re-evaluations carried out by INSTAT in 2015 (online web page) and INSTAT 2001-2009 (annual official publications).

**ALBANIA:
Deaths data 2001-2009
according to
INSTAT 2015
compared to
INSTAT 2001-2009**

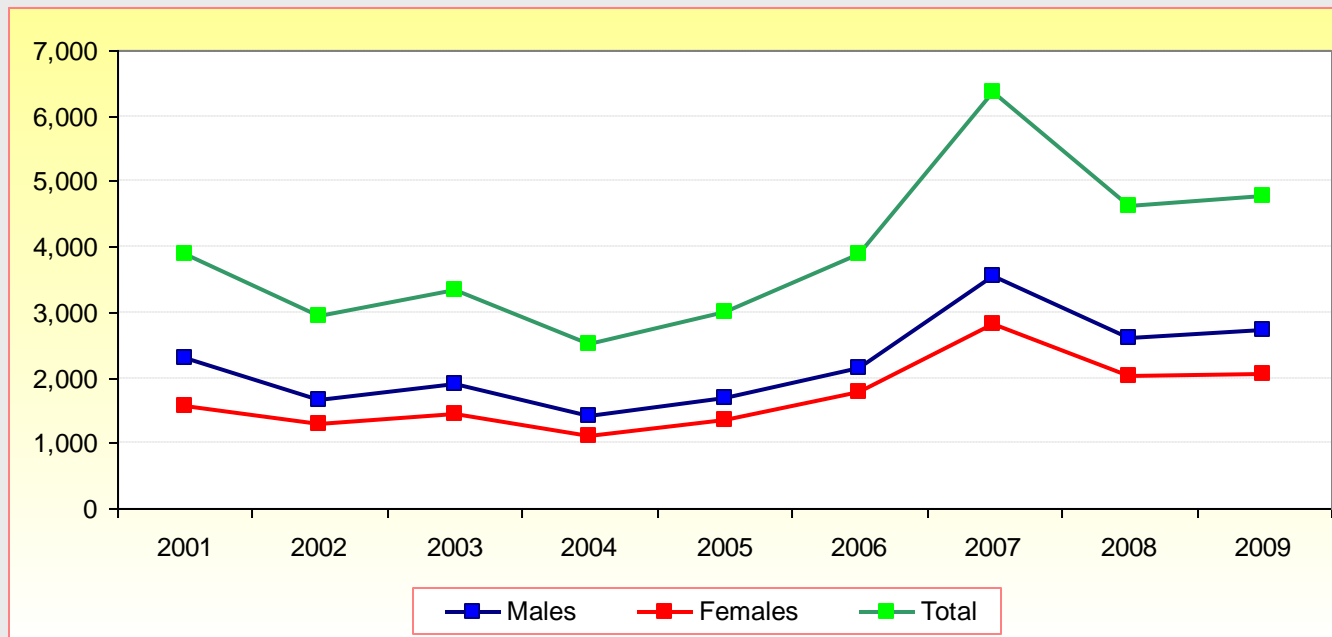
Deaths according to the INSTAT 2001-2009 annual official publications :				Deaths according to the INSTAT website in 2015 (years 2001-2009 being re-estimated) :			
<u>A</u>				<u>B</u>			
Years	Total	Males	Females	Years	Total	Males	Females
2001	15,143	8,714	6,429	2001	19,013	11,014	7,999
2002	16,248	9,123	7,125	2002	19,187	10,773	8,414
2003	17,967	10,014	7,953	2003	21,294	11,897	9,397
2004	17,749	9,954	7,795	2004	20,269	11,361	8,907
2005	17,427	9,693	7,734	2005	20,430	11,363	9,067
2006	16,962	9,204	7,731	2006	20,852	11,349	9,503
2007	14,529	8,080	6,448	2007	20,886	11,616	9,270
2008	16,143	9,023	7,120	2008	20,749	11,610	9,139
2009	15,662	8,525	7,137	2009	20,428	11,255	9,173

Annual deaths 2001-2009 (absolute number) in total and gender-specific:
 (A) according to the INSTAT 2001-2009 annual official publications, and
 (B) according to retrospectively re-estimations of INSTAT in 2015 (displayed at INSTAT website in 2015)

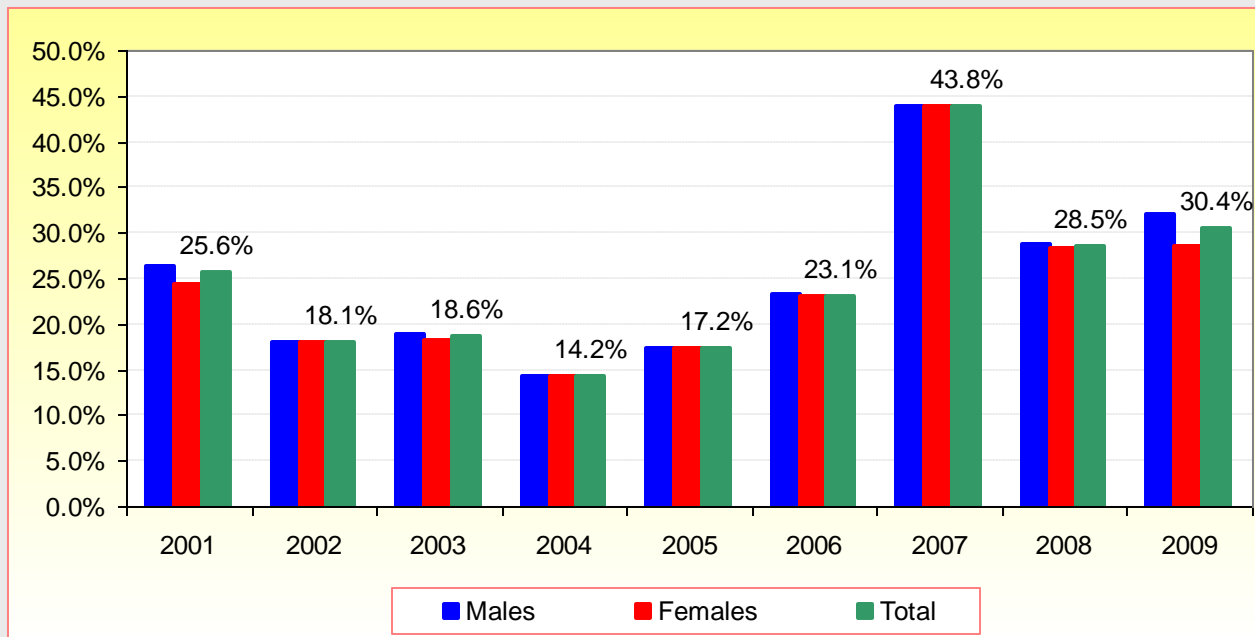


Difference B-A of annual deaths between INSTAT retrospectively re-estimations in 2015 (B) and INSTAT 2001-2009 official publications (A) : <u>B-A in absolute number</u>				Difference B-A of annual deaths between INSTAT retrospectively re-estimations in 2015 (B) and INSTAT 2001-2009 official publications (A) : <u>B-A in percentage</u>			
Years	Total	Males	Females	Years	Total	Males	Females
2001	3,870	2,300	1,570	2001	25.6%	26.4%	24.4%
2002	2,939	1,650	1,289	2002	18.1%	18.1%	18.1%
2003	3,327	1,883	1,444	2003	18.6%	18.8%	18.2%
2004	2,520	1,407	1,112	2004	14.2%	14.2%	14.2%
2005	3,003	1,670	1,333	2005	17.2%	17.2%	17.2%
2006	3,890	2,145	1,772	2006	23.1%	23.3%	22.9%
2007	6,357	3,536	2,822	2007	43.8%	43.8%	43.8%
2008	4,606	2,587	2,019	2008	28.5%	28.7%	28.4%
2009	4,766	2,730	2,036	2009	30.4%	32.0%	28.5%

Differences in absolute number between
 (B) annual deaths 2001-2009 in total and gender-specific according to retrospectively re-estimations of INSTAT in 2015
 (displayed at INSTAT website in 2015), and
 (A) annual deaths 2001-2009 in total and gender-specific according to the INSTAT 2001-2009 annual official publications



Differences in percentage between
 (B) annual deaths 2001-2009 in total and gender-specific according to retrospectively re-estimations of INSTAT in 2015
 (displayed at INSTAT website in 2015), and
 (A) annual deaths 2001-2009 in total and gender-specific according to the INSTAT 2001-2009 annual official publications



B/A ratio of annual deaths between
INSTAT retrospectively re-estimations in 2015 (B)
and INSTAT 2001-2009 official publications (A) :

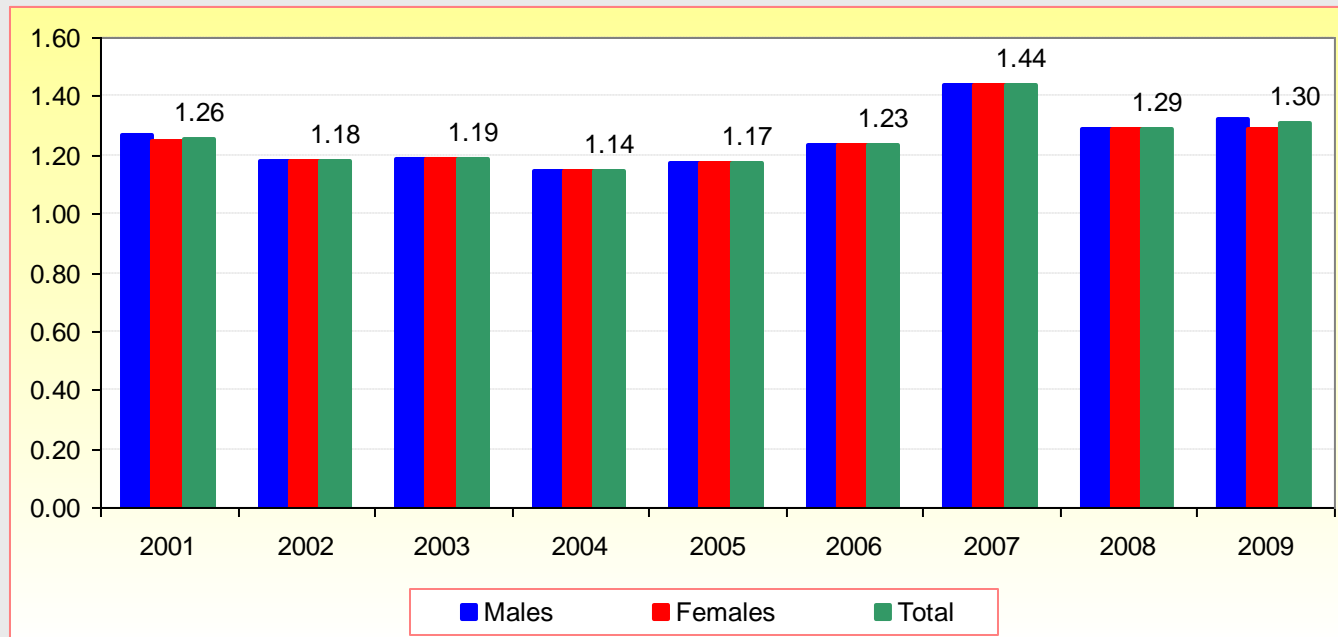
B/A ratio

Years	Total	Males	Females
2001	1.26	1.26	1.24
2002	1.18	1.18	1.18
2003	1.19	1.19	1.18
2004	1.14	1.14	1.14
2005	1.17	1.17	1.17
2006	1.23	1.23	1.23
2007	1.44	1.44	1.44
2008	1.29	1.29	1.28
2009	1.30	1.32	1.29

Ratio between

(B) annual deaths 2001-2009 in total and gender-specific according to retrospectively re-estimations of INSTAT in 2015 (displayed at INSTAT website in 2015), and

(A) annual deaths 2001-2009 in total and gender-specific according to the INSTAT 2001-2009 annual official publications



There are big differences between deaths data by the INSTAT annual official publications 2001-2009 (marked as “A” by us) and respective annual deaths data by the INSTAT 2015 official site (website) (marked as “B” by us), where the 2015 web-displaying retrospectively re-estimated annual deaths of the years 2001-2009 result to be significantly higher than the respective ones of the former official publications.

Concretely, the differences B-A in absolute numbers vary from 2,520 total deaths (1,407 male deaths and 1,112 female deaths) in 2004 to 6,357 total deaths (3,536 male deaths and 2,822 female deaths) in 2007.

The same differences B-A, expressed in percentage, gives the following figures: from 14.2% as total deaths in 2004 to 43.8% as total deaths in 2007.

Otherwise saying, the ratio B/A of annual deaths between retrospectively re-evaluations INSTAT 2015 (=B) and annual official publications of INSTAT 2001-2009 (=A) varies from 1.14 in 2004 to 1.44 in 2007.

[CDR - Crude Death Rate] (deaths/1,000 inhabitants)
2001-2009
according to
the INSTAT 2001-2009 annual official publications :

A

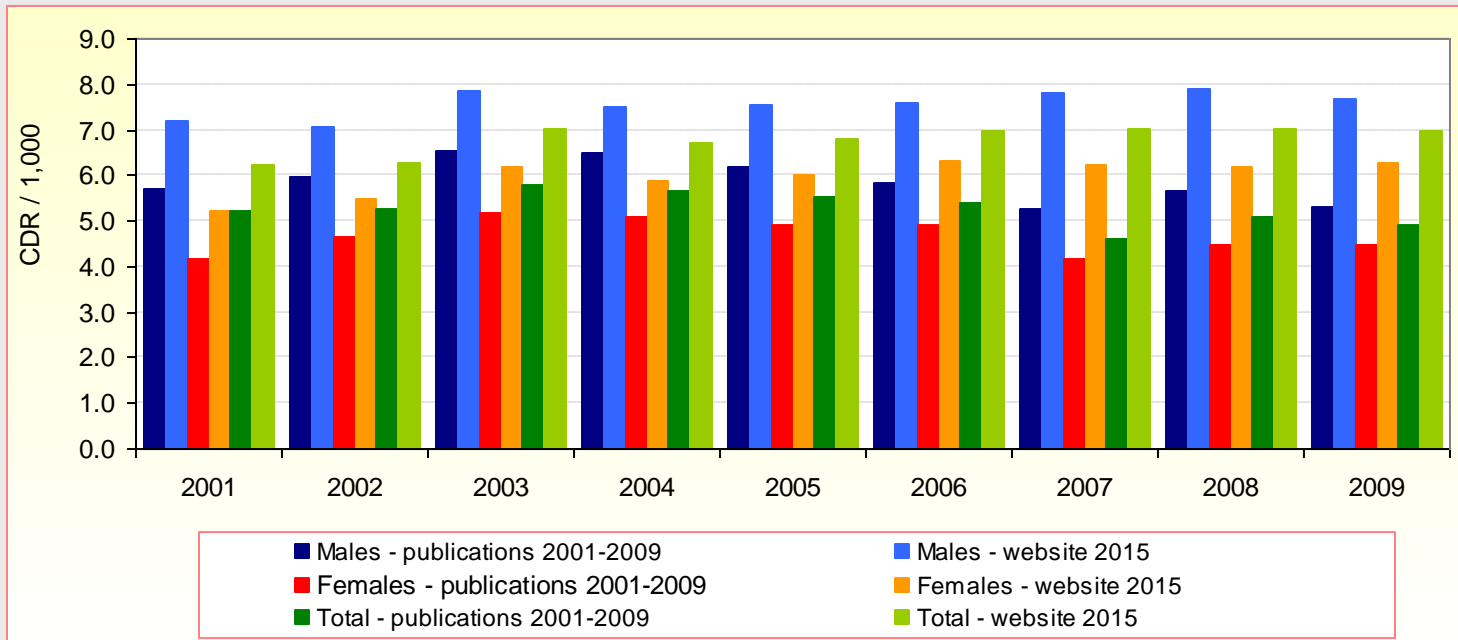
Years	Total	Males	Females
2001	5.2	5.7	4.2
2002	5.3	6.0	4.6
2003	5.8	6.5	5.2
2004	5.7	6.5	5.1
2005	5.5	6.2	4.9
2006	5.4	5.8	4.9
2007	4.6	5.3	4.2
2008	5.1	5.7	4.5
2009	4.9	5.3	4.5

[CDR - Crude Death Rate] (deaths/1,000 inhabitants)
2001-2009
according to the INSTAT website 2015
(years 2001-2009 being re-estimated) :

B

Years	Total	Males	Females
2001	6.2	7.2	5.2
2002	6.3	7.1	5.5
2003	7.0	7.8	6.2
2004	6.7	7.5	5.9
2005	6.8	7.6	6.0
2006	7.0	7.6	6.3
2007	7.0	7.8	6.2
2008	7.0	7.9	6.2
2009	7.0	7.7	6.3

Annual CDR (deaths/1,000 population) 2001-2009 in total and gender-specific:
 (A) according to the INSTAT 2001-2009 annual official publications, and
 (B) according to retrospectively re-estimations of INSTAT in 2015 (displayed at INSTAT website in 2015)



Difference B-A of annual CDR 2001-2009 between INSTAT retrospectively re-estimations in 2015 (B) and INSTAT 2001-2009 official publications (A) :

B-A in absolute number

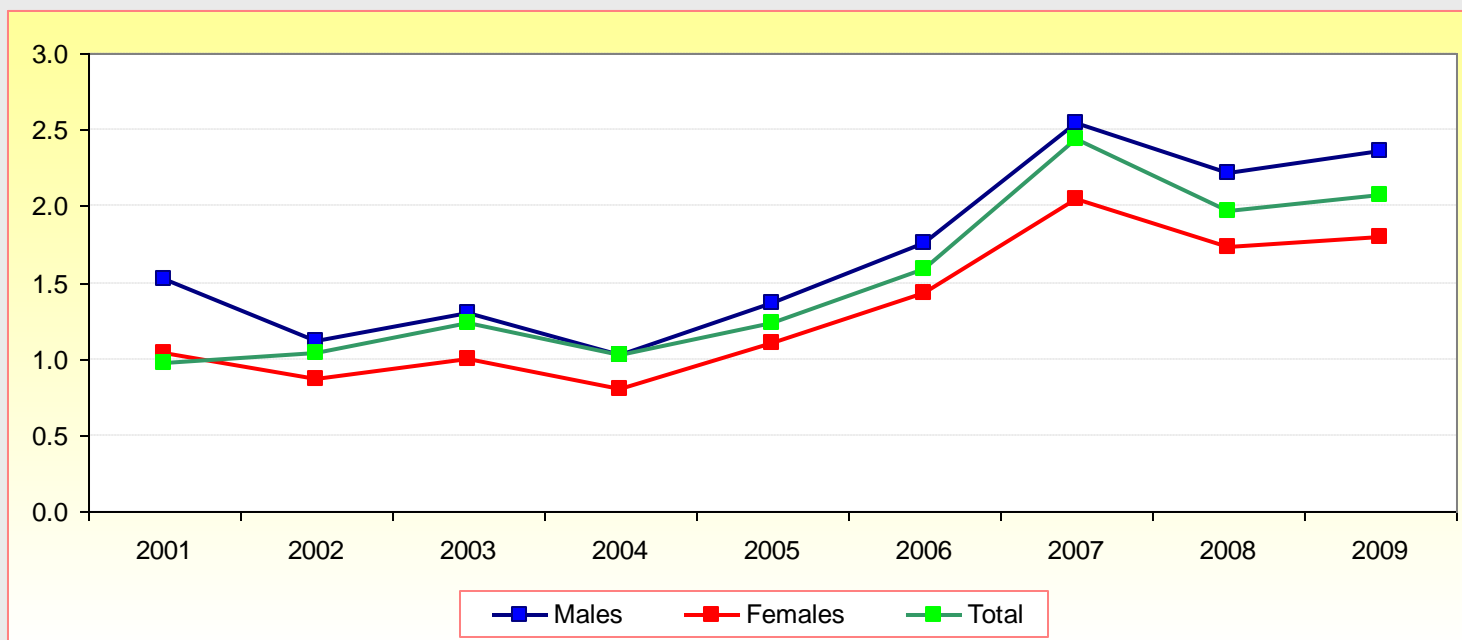
Years	Total	Males	Females
2001	1.0	1.5	1.0
2002	1.0	1.1	0.9
2003	1.2	1.3	1.0
2004	1.0	1.0	0.8
2005	1.2	1.4	1.1
2006	1.6	1.8	1.4
2007	2.4	2.5	2.0
2008	2.0	2.2	1.7
2009	2.1	2.4	1.8

Difference B-A of annual CDR 2001-2009 between INSTAT retrospectively re-estimations in 2015 (B) and INSTAT 2001-2009 official publications (A) :

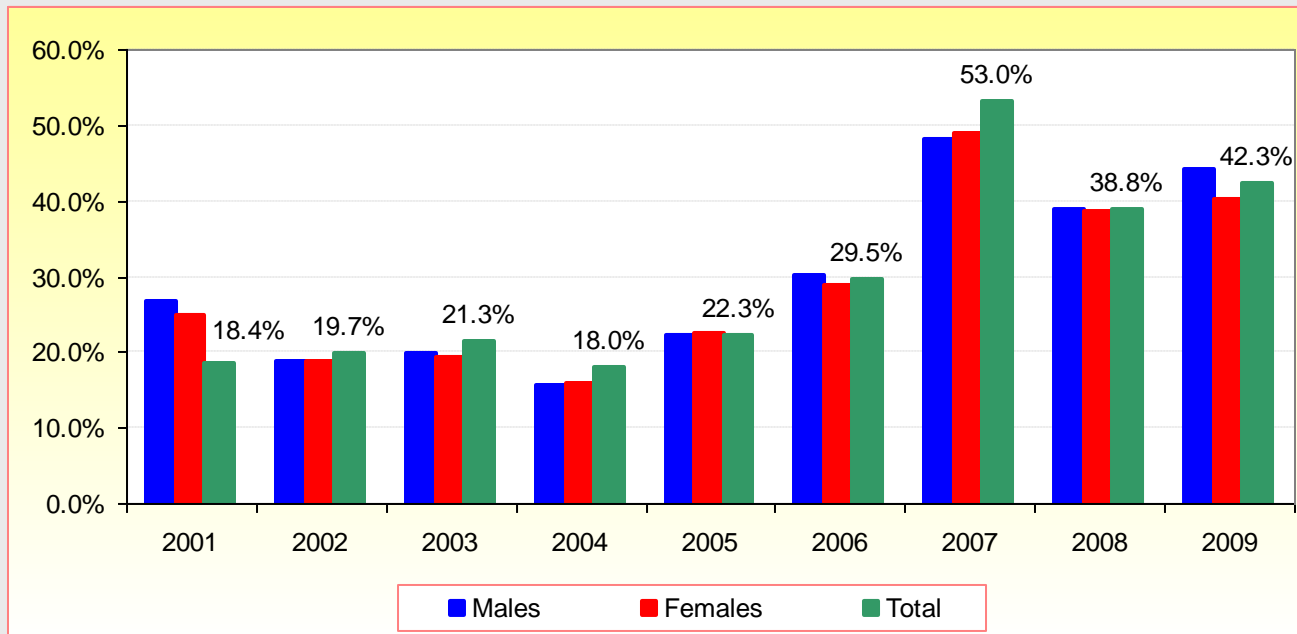
B-A in percentage

Years	Total	Males	Females
2001	18.4%	26.8%	24.8%
2002	19.7%	18.7%	18.8%
2003	21.3%	19.9%	19.3%
2004	18.0%	15.7%	15.8%
2005	22.3%	22.1%	22.5%
2006	29.5%	30.0%	28.9%
2007	53.0%	48.2%	48.8%
2008	38.8%	39.0%	38.5%
2009	42.3%	44.2%	40.1%

Differences in absolute number between
(B) annual CDR 2001-2009 in total and gender-specific according to retrospectively re-estimations of INSTAT in 2015
(displayed at INSTAT website in 2015), and
(A) annual CDR 2001-2009 in total and gender-specific according to the INSTAT 2001-2009 annual official publications



Differences in percentage between
 (B) annual CDR 2001-2009 in total and gender-specific according to retrospectively re-estimations of INSTAT in 2015
 (displayed at INSTAT website in 2015), and
 (A) annual CDR 2001-2009 in total and gender-specific according to the INSTAT 2001-2009 annual official publications



B/A ratio of annual CDR 2001-2009 between
INSTAT retrospectively re-estimations in 2015 (B)
and INSTAT 2001-2009 official publications (A) :

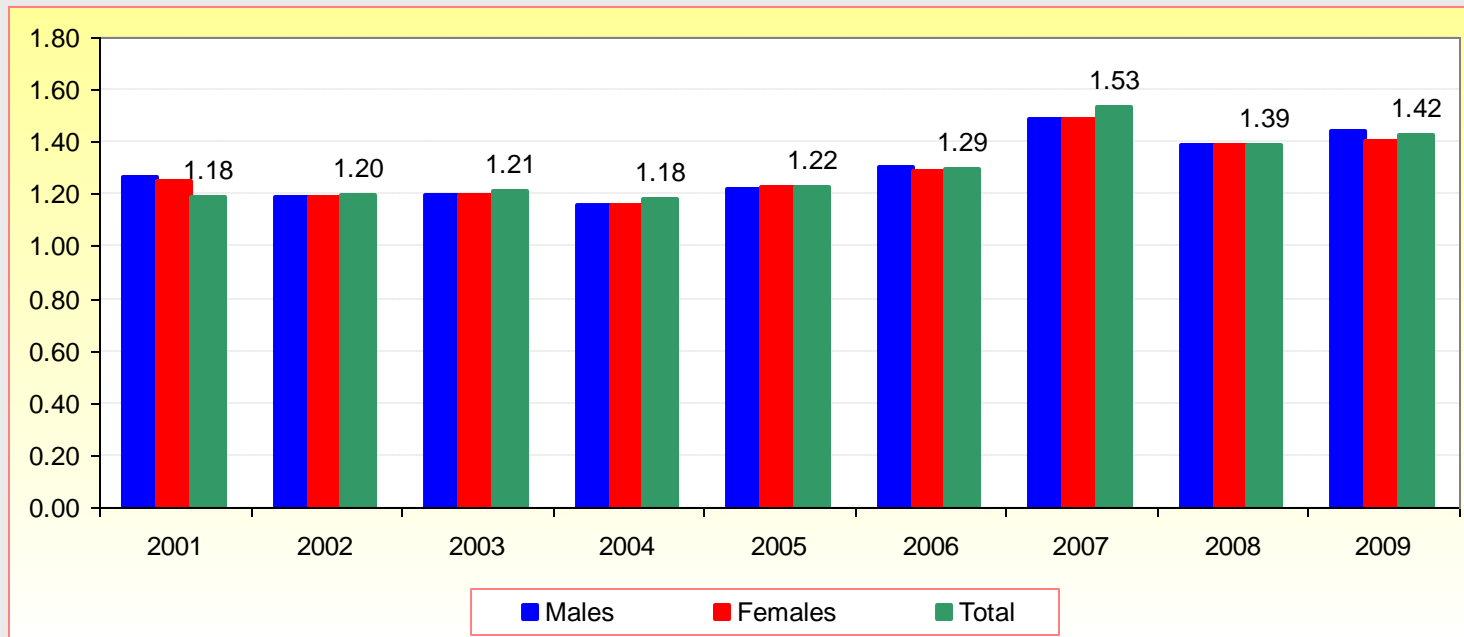
B/A ratio

Years	Total	Males	Females
2001	1.18	1.27	1.25
2002	1.20	1.19	1.19
2003	1.21	1.20	1.19
2004	1.18	1.16	1.16
2005	1.22	1.22	1.23
2006	1.29	1.30	1.29
2007	1.53	1.48	1.49
2008	1.39	1.39	1.39
2009	1.42	1.44	1.40

Ratio between

(B) annual CDR 2001-2009 in total and gender-specific according to retrospectively re-estimations of INSTAT in 2015 (displayed at INSTAT website in 2015), and

(A) annual CDR 2001-2009 in total and gender-specific according to the INSTAT 2001-2009 annual official publications



There are big differences between annual Crude Death Rate – CDR (deaths/1,000 population) based on deaths data by the INSTAT annual official publications 2001-2009 (marked as “A” by us) and respective annual CDR based on deaths data by the INSTAT 2015 official site (website) (marked as “B” by us), where the 2015 web-displaying retrospectively re-estimated annual CDR of the years 2001-2009 result to be significantly higher than the respective ones of the former official publications.

Concretely, the differences B-A in absolute numbers of annual CDR vary from 1,0 in 2001, 2002 and 2004 to 2,4 in 2007.

The same differences B-A of annual CDR, expressed in percentage, gives the following figures: from 18.0% in 2004 to 53.0% in 2007.

Otherwise saying, the ratio B/A of annual CDR between INSTAT 2015 retrospectively re-evaluations (=B) and annual official publications of INSTAT 2001-2009 (=A) varies from 1.18 in 2001 and 2004 to 1.53 in 2007.

Question as conclusion:

The INSTAT annual official publications 2001-2009 on population and deaths in Albania result to be quite different (respectively higher and lower) compared to the respective retrospectively re-evaluations INSTAT in 2015.

The formers are both officially published and delivered on-time to the WHO.

The respective 2015 re-estimated figures are going to take into account the 2001-2009 data under-reporting rate, thus giving a quite different picture.

The former being published, the later being speculated.

Which of them is true?

Thank you for your attention !