INFOSTAT – INSTITUTE OF INFORMATICS AND STATISTICS Demographic Research Centre

PROJECTION OF ROMA POPULATION IN SLOVAKIA UNTIL 2025

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1. Introduction

The Slovak Republic can be marked as a multiethnic country. In addition to Slovaks, the non-negligible number of ethnic and national minority members lives in its territory. According to realistic estimates their number accounts for approximately 20% from the total population. In terms of the historical, demographic, urban, cultural and socio-economic aspects, there are significant differences between the particular ethnic groups. Undoubtedly this is especially true for the Roma ethnic group. In this case these differrences have achieved such level, that this is commonly referred to as a Roma problem. Thus, both the analysis of the reproduction behaviour of Roma population and the estimate of the number of Romas attract the attention of public. This information is required also by the government, because the Roma minority and its problems remarkably influence, and will influence especially in the future, the development of the entire society.

There are two main reasons for the elaboration of demographic analyses and projections related to Roma population. Firstly, it is the remarkably different reproductive behaviour of Romas as compared to the rest of population. Trends being used within national projections and which can be, with a certain tolerance, used also for the demographic projections of particular ethnic groups, are not usable for Romas. Secondly, it is the low standard of living of Roma population. The situation is currently so serious that the participation of government in its solution is necessary. All measures, which have to be taken from the government part, require information on the number, structure and the territorial distribution of Roma population.

2. Assumptions of projection

The most important and most complicated part of demographic projection is the preparation of input parameters. The preparation of input parameters of this projection is complicated by the fact that in the initial year we do not know the exact number and structure of Roma population together with its reproductive characteristics – mortality, fertility and migration. All these data are replaced by estimates what undoubtedly increases the complicacy of the projection and, at the same time, decreases its reliability. As it has been mentioned in the introduction, demographic projections are marked by a large extent of This projection aims to indicate the possible number and structure of Roma population until 2025 at the national level. The territorial distribution will be the subject of a regional Roma projection, currently under preparation, which will be elaborated in relation to the new regional projection of the SR.

For the calculation of projection of Roma population in the SR until 2025 the component method has been used. This method is based on the principle of shifting of age groups, their reduction due to mortality, increase or decrease by the impact of migration and their supplementing by births according to the assumed intensity of fertility. The projection of population is thus a model of expected population development. It is based on the knowledge of the number of population and its structure by age and sex in the initial year of projection and on the estimation of basic reproductive factors and migration for the projection period.

Projections, which include in their assumptions the human behaviour and decision-making, are always accompanied with a great uncertainty. In case of the projection of Roma population the situation is more complicated because currently there is no suitable information on the number and reproductive behaviour of Romas.

The Annexes to this publication contain results of all three variants of projection for selected years. They contain the information on the number of Romas, their age and sex structure as well as the basic demographic characteristics. The electronic version of this publication is to be found on the web site of Demographic Research Centre www.infostat.sk/vdc).

uncertainty. Thus, the expected development of input parameters is entered alternatively in several scenarios. The development of fertility and mortality, which together with migration are to be considered as input parameters of the projection being calculated by a component method, has been for the purposes of this projection prepared in three scenarios (lowintegrated, medium-inertial, high-segregated). During the course of the projection period the zero net migration has been taken account.

The mortality and fertility of Roma population lingeringly differ from the fertility and mortality of non-Roma population. In comparison with other population, both the fertility and mortality of Romas are higher, while the differences in reproduction between both groups are gradually diminishing. The integration of Romas into society is decisively contributing to the diminishing of these differences. Romas who live integrated to the major population, do not significantly differ from the rest of population in terms of their way of life and reproductive behaviour. In case of that part of Romas who live in segregate settlements and villages, the differences in their way of life and reproductive behaviour are flagrant. The particular variants of this projection are also based on the development of integration of Roma population into society. The baseline variant assumes the continuation of the current slow integration. The low variant

The basis for each population projection is the number of population and the structure by age and sex in the initial year of the projection. Essentially it is the last actually surveyed figure, which is the starting point for the projection. Due to the fact that in Slovakia there are currently no data on the number of members of the Roma ethnic group, it has been necessary to estimate the initial data.

2.1 Roma population in initial year of projection

Tab.1 – Age structure of Roma population in Slovakia 31.12.2001

Age	Males	Females	Total
0-4	20 552	19 695	40 247
5-9	25 650	24 597	50 247
10-14	25 282	24 278	49 560
15-19	22 826	21 896	44 722
20-24	18 210	17 617	35 827
25-29	16 504	16 409	32 913
30-34	14 687	14 178	28 865
35-39	13 812	13 279	27 091
40-44	11 609	10 872	22 481
45-49	8 516	8 395	16 911
50-54	5 360	5 616	10 976
55-59	2 768	3 531	6 299
60-64	2 003	3 007	5 010
65-69	1 342	2 529	3 871
70-74	710	1 728	2 4 3 8
75-79	296	879	1 175
80-84	61	204	265
85+	12	40	52
Total	190 200	188 750	378 950

takes into consideration the accelerated integration and, on the contrary, the high variant supposes its slowdown or even cease. Currently, the development in the range between the medium and low variant seems to be the most likely one. The continuation or speeding up of the integration of Romas will be subject of interest not only of our society but in case of the ongoing European integration also of the European Community. The existence of regions with the low standard of living is the potential source of problems, which Slovakia would undoubtedly like to avoid of. The pressure of the European Community on the equalisation of differences between regions and population groups can only speed up the integration process of Romas.

The estimate of the number and agesex structure of Romas living in territory of Slovakia as of 31 December 2001, which has been used as a starting point for the projection, has been worked out as a demographic forecast ex post. The starting point was the year 1980 for which sufficiently reliable and detailed data was available resulting from the population census. The final year was 2001 and the result is the estimate of the current number and age and sex structure of Romas living in Slovakia (table 1).

According to our estimate, approximately 380 000 Romas were living in Slovakia as of the end of 2001. The age structure of Roma and non-Roma population differs remarkably. While the share of children aged 15 years and less is at non-Roma population roughly 17%, at Roma population it is almost 37%, which is more than twice. Conversely, only 2% of Roma population are aged 65 years and over, while at non-Roma population this share is approximately 6 times higher (12,2%). These significant differences in the age structure of population are the reason for an extremely big difference in the ageing index.

The fact that the projection does not start with the actually surveyed number and structure of population but rather with the estimate obviously reduces the accuracy and reliability of the projection. On the other hand, this estimate has used a number of supplementary data and information, which have facilitated and undoubtedly increased the quality of the estimate of the reproductive behaviour of Romas from 1980 until nowadays.

2.2 Fertility

The basic assumption in all fertility scenarios is the approaching of Roma fertility to the fertility of non-Roma population (table 2. graph 1). In the high scenario it has been assumed the stagnation of Roma fertility approximately at the current level, thus, the approaching of the Roma and non-Roma fertility should occur only in the case that the expected increase of non-Roma fertility is to be fulfilled. In the medium and low scenario, the decrease of Roma fertility to the level of total fertility rate 2,0 or 1,75 until 2025 is taken into account. With the expected fertility increase at the non-Roma population this difference in fertility between the Roma and non-Roma population should decrease by 50-75% until 2025. Thus, if we compare the assumptions of this projection with the medium scenario of the population projection for the whole population of the SR, the current approximately two-times higher Roma fertility (as compared to the average of the SR) should change until 2025 as follows: according to the high scenario it should be 1,45 times higher, according to the medium scenario 1,3 times higher and according to the low scenario it should be only 1,13 times higher.

Vear		Scenario	
i cai		beenario 1	
	high	medium	low
2005	2,297	2,264	2,228
2010	2,287	2,199	2,103
2015	2,277	2,134	1,977
2020	2,267	2,068	1,852
2025	2,250	2,000	1,720

G(a) $f(a)$	Graph	1:	Fertility	of Roma	women in	Slovakia	until	202
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2.3 Mortality

When forecasting the Roma population development the mortality plays a more significant role than in the case of demographic projections of non-Roma population. That is to say that the mortality of Romas is high, thus, also the potential for its decrease is high. If the standard of living of Roma population is better, one immediately can suppose with the significant decrease of mortality. In all scenarios the decrease of mortality is assumed, which will appear as an extension of the life expectancy at birth in case of both males and females (table 3, table 4, graph 2, graph 3). The difference between particular scenarios is only in the level of mortality decrease. The highest decrease of mortality is supposed by the low scenario, while at the same time, the life expectancy at birth should increase until 2025 up to the levels, which are currently reached by the population of the SR. 8

Thus, the excess mortality of Romas should according to this scenario decrease by 3 years at men and by 5 years at women. The medium scenario means approximately the same decrease in the Roma mortality as it is assumed for the whole population. The life expectancy at birth should increase as compared to the estimated current situation for Roma men roughly by 5 years (up to 67,5 years) and for Roma women approximately by 6 years (up to

Table 3: Life expectancy at birth (Roma men)

(Roma men)								
Voor		Scenarios						
I Cal	high	medium	low					
2005	63,04	62,72	62,41					
2010	64,78	63,91	63,09					
2015	66,52	65,11	63,77					
2020	68,26	66,30	64,46					
2025	70,00	67,50	65,14					

74 years). If the assumptions from the high scenario are fulfilled, the Roma mortality will decrease at both genders, however, the decrease will be slower than the decrease for the whole population of the SR. The life expectancy at birth should reach in the year 2025 65 years for men and 71 years for women. Thus, the Roma excess mortality should be even deeper (for men this difference should increase up to 10 years and for women up to 11 years).

 Table 4: Life expectancy at birth

 (Roma women)

(Roma women)								
Year	Scenarios							
	high	medium	low					
2005	68,30	67,91	67,53					
2010	70,48	69,43	68,41					
2015	72,65	70,96	69,29					
2020	74,83	72,48	70,18					
2025	77,00	74,00	71,06					



2.4 Migration

It is estimated that currently the migration of Romas across the Slovak borders is minimal and also in future no significant changes are expected. In the unified Europe the main component of migration is the labour migration. Roma people do not have the tendency to migrate for labour. In addition to this fact, one has to take into account also the strong competition at the labour market, within which Romas might have difficulties to cope with due to the low level of their education. Therefore in the very next decades one can expect neither the higher migration of Romas in Europe nor the higher number of emigrated and/or immigrated Romas across the Slovak borders. Due to these reasons we have decided to consider the zero external migration during the course of the projection period.



Graph 3: Mortality of Roma women in Slovakia until 2025

3. Alternative scenarios of the Roma population development in the SR

By combination of scenarios we obtain variants of projection. For the purposes of this projection we have chosen three variants low, baseline and high. During the course of the projection period we consider the migration as a zero one, thus, only the development of fertility and mortality contributes to the creation of the projection variants. Because the continuation of the process of integration of Roma population is assumed, the baseline variant (medium fertility, medium mortality), together with the low scenario (low fertility, low mortality), can be marked as the likely variants of the future development of the Roma ethnic group. Whether the future development is to be closer rather to the medium or to the low scenario will depend on resumption of

4. Results of projection of Roma population in the SR until 2025

During the course of the projection period the number of Romas in Slovakia will increase, although the growth rate will gradually slow down (graph 4). In 2025, it is very likely that approximately 520 000 Romas will live in the territory of the SR what represents an increase by 140 000 people (37%) as compared to the current situation. The share of Romas in the population of the SR should increase from the current 7,2% up to 9,6% in 2025 (table 5, table 6). In the high (less likely) variant can be assumed that the number of Romas will exceed until 2025 the level of 530 000, what would mean an increase by integration processes. The high variant (high fertility, high mortality) is not to be currently considered as the likely one. It will occur only if the integration process of Roma population slows down or ceases. Such situation means that serious problems would have occurred in the society and we hardly can imagine such circumstances in the unified Europe.

Thus, at present we consider the scenario with the ongoing decrease of fertility and mortality as the most likely one. The total fertility rate of Roma women should decrease until 2025 below the level of 2,0. The mortality of Roma men and women should approach the current average values for the SR, provided that the integration would slightly speed up.

39,5% as compared to the current situation (table 7). We can reckon with the cease of increase of Roma population in the SR only after 2035. In this time period the share of Romas in the total population should reach approximately 11%.

The very small difference between the high and low variant of projection is very interesting. It means that if the integration of Roma population goes on fast the number of Romas living in the territory of Slovakia will be only by 15 000 people lower than under the conditions of slow integration.

Year	Population 31.12.	Natural increase	Ageing index	Mean age
2002	384 786	5 837	5,05	24,43
2003	390 725	5 939	5,42	24,84
2004	396 768	6 043	5,84	25,24
2005	402 914	6 146	6,27	25,62
2006	409 172	6 258	6,67	25,99
2007	415 549	6 377	7,07	26,35
2008	422 030	6 481	7,48	26,69
2009	428 626	6 596	7,82	27,02
2010	435 325	6 699	8,27	27,34
2011	442 088	6 763	8,68	27,64
2012	448 862	6 774	9,16	27,94
2013	455 611	6 749	9,89	28,24

Population Natural Ageing Mean Year 31.12. increase index age 2014 462 293 6 6 8 2 10,5 28,54 2015 468 853 6 5 6 0 11,13 28,83 2016 475 281 6428 11,94 29,13 2017 481 545 12,79 6 2 6 4 29,43 2018 487 629 6 0 8 4 13,7 29,74 2019 493 512 5 883 14,67 30,05 2020 499 170 5 658 15,58 30,37 2021 5 4 3 0 504 600 16,55 30,69 2022 509 793 5 193 17,66 31,02 2023 514 750 4 9 5 7 18,93 31,35 2024 519 494 4 7 4 4 20,23 31,69 2025 524 052 4 5 5 8 21,55 32,03

Table 5: Main results of projection (baseline variant)

Table 6: Main results of projection (low variant)

Table	7:	Main	results	of	projection
		(high	variant)	

	(low var	ow variant)				(nign va	riant)		
Year	Population 31.12.	Natural increase	Ageing index	Mean age	Year	Population 31.12.	Natural increase	Ageing index	Mean age
2002	384 786	5 837	5,05	24,43	2002	384 786	5 837	5,05	24,43
2003	390 699	5 913	5,43	24,84	2003	390 745	5 959	5,42	24,84
2004	396 692	5 993	5,85	25,24	2004	396 832	6 087	5,84	25,23
2005	402 757	6 065	6,28	25,64	2005	403 047	6 215	6,27	25,61
2006	408 906	6 149	6,69	26,02	2006	409 404	6 357	6,65	25,97
2007	415 126	6 220	7,10	26,39	2007	415 893	6 489	7,04	26,31
2008	421 436	6 310	7,53	26,75	2008	422 522	6 629	7,44	26,64
2009	427 828	6 392	7,89	27,10	2009	429 300	6 778	7,76	26,95
2010	434 285	6 457	8,37	27,43	2010	436 196	6 896	8,19	27,25
2011	440 777	6 492	8,81	27,77	2011	443 187	6 991	8,57	27,53
2012	447 243	6 466	9,33	28,09	2012	450 222	7 035	9,01	27,81
2013	453 655	6 412	10,10	28,42	2013	457 254	7 032	9,70	28,08
2014	459 972	6 317	10,77	28,75	2014	464 254	7 000	10,26	28,35
2015	466 151	6 179	11,47	29,08	2015	471 150	6 896	10,83	28,62
2016	472 171	6 0 2 0	12,37	29,41	2016	477 920	6 770	11,58	28,89
2017	478 009	5 838	13,31	29,75	2017	484 546	6 6 2 6	12,35	29,16
2018	483 645	5 636	14,34	30,09	2018	491 001	6 455	13,18	29,43
2019	489 064	5 419	15,44	30,44	2019	497 256	6 255	14,04	29,71
2020	494 243	5 179	16,49	30,80	2020	503 303	6 047	14,83	29,99
2021	499 179	4 936	17,62	31,17	2021	509 124	5 821	15,69	30,27
2022	503 856	4 677	18,91	31,54	2022	514 716	5 592	16,65	30,57
2023	508 293	4 437	20,39	31,92	2023	520 095	5 379	17,76	30,86
2024	512 494	4 201	21,93	32,30	2024	525 272	5 177	18,88	31,16
2025	516 495	4 001	23,51	32,69	2025	530 269	4 997	20,01	31,45

The reason for such development lies in the fact that integration processes influence simultaneously the mortality and fertility by which, on the one hand, the number of births decreases, however, on the other hand, the human life is extending and thus the decline of natural increase is relatively low. In case of the integration slowdown, this influence is opposite – the number of births and deaths is increasing. The difference between the integration and segregation variant appears to a greater extent only in a longer time horizon when the

impact of current generations in the reproductive processes will be weaker.

All variants of projection evidence that the increase of Roma population in Slovakia will be kept during the course of the projection period (graph 5). During the forthcoming 10-12 years the increase of Romas in Slovakia will arise. The highest values in the range of $6\ 000 - 7\ 500$ persons annually should be reached around 2015. After 2015 we assume the beginning of the long-term decline of the Roma population increase. Until 2025, the decline in increase approximately by 30% can be assumed. It means that according to the likely variant of projection increase in Roma population at the end of the projection period will be in the range from 4000 up to 4500 persons.

Graph 4: Roma population in Slovakia until 2025



Graph 5: Natural increase of Roma population in Slovakia until 2025



Ageing will be a remarkable feature of the future population development also in case of Roma population (graph 6). During the forthcoming 25 years the ageing index (population aged 65 and over per 100 population aged 0-17) will arise more than fourfold, however, even at the end of the projection period it will not reach the values, which are currently recorded in case of non-Roma population in Slovakia. It is the consequence of current huge differences in the age structure of Roma and non-Roma population, which are changing only very slowly. In Roma population currently only 5 people aged 65 years and over fall per 100 young people aged up to 17 years. Until 2025 this ratio will be changed; approximately 21 people aged 65 years and over will fall per 100 people aged up to 17 years (nowadays in Slovakia approximately 50 people aged 65 years and over per 100 people aged up to 17 years).

Graph 6: Ageing of Roma population in Slovakia until 2025



5. Conclusion

Presently, there are 380 000 Romas living in the territory of Slovakia. Their reproductive behaviour differs from the reproductive behaviour of the non-Roma population. As a consequence of the different reproductive behaviour there are differences in the development of number and structure of Roma and non-Roma population.

The number of members of the Roma ethnic group is lingeringly increasing and this tendency will be maintained approximately 4 decades. However, the annual increases of Roma population will have a declining tendency roughly since 2015. In 2025, which is the last year of the projection, more than 500 000 Romas will be living in Slovakia. While the development of non-Roma population will be opposite, the share of Romas in the Slovak population will grow. From current 7%, it will increase to almost 10% in 2025.

Significant differences between Roma and non-Roma population are also in the age structure. Roma population is substantially younger with the remarkably higher share of pre-productive population and a significantly lower share of post-productive population. The process of ageing, which will be the most serious demographic feature of the Slovak population, will accelerate also in Roma population. However, the intensity of these processes will be essentially weaker as compared to the non-Roma population.

Also from the results of this projection it can be seen that changes in reproductive behaviour will appear in the development of the number of population only with a certain delay. The high numbers of Romas at the age of the highest fertility will ensure for a certain time period the relatively high number of births, even in the case of decrease of fertility. On the other hand, if mortality falls, it will mean only a small decrease in the number of deaths because only relatively a few Romas are at the age of the highest mortality. It means, that changes in the reproductive behaviour will significantly influence the number of Roma population only if its age structure changes. And this will surely happen only beyond the horizon of this projection.

The submitted projection estimates the number and structure of Roma ethnic group as a whole and does not take into account its great heterogeneity. One of the most significant differential features in Roma population is the degree of its integration into society. According to estimates, approximately 60% of Romas are living integrated with the majority of society and the remaining 40% are living in segregated villages or parts of municipalities and cities. Both these groups differ in the way of life, standard of living and also in the reproductive behaviour. When we are talking about the Roma problem (mainly in connection with the standard of living), we mean almost exclusively the non-integrated part of the Roma ethnic group. Also with regard to the solution of the unfavourable standard of living of Roma population, it might be more appropriate to calculate the projection separately depending on the achieved degree of integration or to work out the projection only for the separately living part of Roma population. However, there are no sufficient data sources for the elaboration of such projection. Nevertheless, in future it is very likely that the elaboration of such projections will be inevitable.

Appendix 1

Projection results

(baseline variant)

Age	Males	Females	Total
0-4	20694	19749	40443
5-9	20822	19944	40766
10-14	25813	24724	50537
15-19	24733	23714	48447
20-24	21391	20673	42064
25-29	17601	16994	34595
30-34	15655	15592	31247
35-39	14404	13870	28274
40-44	13142	12597	25739
45-49	10534	10040	20574
50-54	7670	7793	15463
55-59	4261	4803	9064
60-64	2370	3226	5596
65-69	1604	2788	4392
70-74	988	2149	3137
75-79	454	1292	1746
80-84	162	552	714
85-89	20	78	98
90-94	6	12	18
95-99	0	0	0
100 +	0	0	0
Total	202324	200590	402914

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	82294	78767	161061
18-44	91961	89090	181051
45-64	24835	25862	50697
65+	3234	6871	10105
Total	202324	200590	402914

Life births	8489
Deaths	2343
Natural increase	6146
Net migration	0
Total increase	6146
Life expectancy at birth - M	63,43
Life expectancy at birth - F	68,04
Total fertility rate	2,266
Ageing index	6,27
Mean age	25,62

Age	Males	Females	Total
0-4	22633	21581	44214
5-9	20416	19458	39874
10-14	20517	19620	40137
15-19	25420	24311	49731
20-24	24313	23308	47621
25-29	20997	20320	41317
30-34	17250	16688	33938
35-39	15307	15302	30609
40-44	13997	13581	27578
45-49	12634	12283	24917
50-54	9962	9733	19695
55-59	7079	7487	14566
60-64	3798	4555	8353
65-69	1997	2982	4979
70-74	1255	2472	3727
75-79	704	1754	2458
80-84	277	911	1188
85-89	78	298	376
90-94	10	29	39
95-99	4	4	8
100 +	0	0	0
Total	218648	216677	435325

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	79015	75426	154441
18-44	101835	98743	200578
45-64	33473	34058	67531
65+	4325	8450	12775
Total	218648	216677	435325

9285
2586
6699
0
6699
63,94
69,32
2,203
8,27
27,34

Age	Males	Females	Total
0-4	23870	22761	46631
5-9	22387	21323	43710
10-14	20168	19195	39363
15-19	20257	19345	39602
20-24	25053	23963	49016
25-29	23927	22973	46900
30-34	20631	20014	40645
35-39	16907	16420	33327
40-44	14920	15029	29949
45-49	13490	13277	26767
50-54	11978	11937	23915
55-59	9218	9373	18591
60-64	6316	7116	13432
65-69	3213	4229	7442
70-74	1567	2654	4221
75-79	896	2019	2915
80-84	429	1237	1666
85-89	132	492	624
90-94	25	99	124
95-99	5	6	11
100 +	2	0	2
Total	235391	233462	468853

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	78247	74569	152816
18-44	109873	106454	216327
45-64	41002	41703	82705
65+	6269	10736	17005
Total	235391	233462	468853

Life births	9413
Deaths	2853
Natural increase	6560
Net migration	0
Total increase	6560
Life expectancy at birth - M	65,01
Life expectancy at birth - F	70,83
Total fertility rate	2,136
Ageing index	11,13
Mean age	28,83

Age	Males	Females	Total
0-4	22952	21898	44850
5-9	23669	22549	46218
10-14	22172	21094	43266
15-19	19967	18981	38948
20-24	20016	19121	39137
25-29	24721	23685	48406
30-34	23572	22690	46262
35-39	20277	19747	40024
40-44	16517	16170	32687
45-49	14422	14737	29159
50-54	12819	12939	25758
55-59	11108	11529	22637
60-64	8246	8934	17180
65-69	5348	6620	11968
70-74	2538	3777	6315
75-79	1119	2175	3294
80-84	546	1426	1972
85-89	202	661	863
90-94	44	161	205
95-99	6	13	19
100 +	2	0	2
Total	250263	248907	499170

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	81018	77165	158183
18-44	112845	108770	221615
45-64	46595	48139	94734
65+	9805	14833	24638
Total	250263	248907	499170

Deaths312Natural increase5658Net migration0Total increase5658Life expectancy at birth - M66,30Life expectancy at birth - F72,37Total fertility rate2,070Ageing index15,58Mean age30,37	Life births	8779
Natural increase5658Net migration0Total increase5658Life expectancy at birth - M66,30Life expectancy at birth - F72,37Total fertility rate2,070Ageing index15,58Mean age30,37	Deaths	3121
Net migration0Total increase5658Life expectancy at birth - M66,30Life expectancy at birth - F72,37Total fertility rate2,070Ageing index15,58Mean age30,37	Natural increase	5658
Total increase5658Life expectancy at birth - M66,30Life expectancy at birth - F72,37Total fertility rate2,070Ageing index15,58Mean age30,37	Net migration	0
Life expectancy at birth - M66,30Life expectancy at birth - F72,37Total fertility rate2,070Ageing index15,58Mean age30,37	Total increase	5658
Life expectancy at birth - F72,3°Total fertility rate2,070Ageing index15,58Mean age30,3°	Life expectancy at birth - M	66,30
Total fertility rate2,070Ageing index15,58Mean age30,37	Life expectancy at birth - F	72,37
Ageing index15,58Mean age30,32	Total fertility rate	2,070
Mean age 30,37	Ageing index	15,58
-	Mean age	30,37

Age	Males	Females	Total
0-4	20961	19999	40960
5-9	22818	21753	44571
10-14	23500	22370	45870
15-19	22008	20917	42925
20-24	19782	18816	38598
25-29	19801	18954	38755
30-34	24418	23459	47877
35-39	23223	22453	45676
40-44	19865	19501	39366
45-49	16002	15896	31898
50-54	13745	14404	28149
55-59	11918	12527	24445
60-64	9962	11016	20978
65-69	7000	8330	15330
70-74	4219	5924	10143
75-79	1825	3117	4942
80-84	684	1545	2229
85-89	261	764	1025
90-94	66	216	282
95-99	9	22	31
100 +	2	0	2
Total	262069	261983	524052

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	80762	76942	157704
18-44	115614	111280	226894
45-64	51627	53843	105470
65+	14066	19918	33984
Total	262069	261983	524052

7986
3428
4558
0
4558
67,53
74,00
2,005
21,55
32,03

Appendix 2

Projection results

(low variant)

Age	Males	Females	Total
0-4	20572	19620	40192
5-9	20827	19947	40774
10-14	25821	24733	50554
15-19	24739	23721	48460
20-24	21396	20678	42074
25-29	17606	16999	34605
30-34	15657	15597	31254
35-39	14410	13871	28281
40-44	13146	12598	25744
45-49	10539	10042	20581
50-54	7672	7797	15469
55-59	4262	4803	9065
60-64	2370	3227	5597
65-69	1604	2789	4393
70-74	988	2149	3137
75-79	454	1293	1747
80-84	162	552	714
85-89	20	78	98
90-94	6	12	18
95-99	0	0	0
100 +	0	0	0
Total	202251	200506	402757

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	82189	78655	160844
18-44	91985	89109	181094
45-64	24843	25869	50712
65+	3234	6873	10107
Total	202251	200506	402757

Life births	8357
Deaths	2292
Natural increase	6065
Net migration	0
Total increase	6065
Life expectancy at birth - M	63,73
Life expectancy at birth - F	68,35
Total fertility rate	2,230
Ageing index	6,28
Mean age	25,64

Age	Males	Females	Total
0-4	21918	20893	42811
5-9	20320	19356	39676
10-14	20547	19649	40196
15-19	25464	24354	49818
20-24	24350	23347	47697
25-29	21032	20351	41383
30-34	17277	16720	33997
35-39	15325	15326	30651
40-44	14022	13603	27625
45-49	12656	12300	24956
50-54	9979	9745	19724
55-59	7089	7499	14588
60-64	3806	4561	8367
65-69	1999	2989	4988
70-74	1257	2476	3733
75-79	705	1754	2459
80-84	277	915	1192
85-89	78	299	377
90-94	10	29	39
95-99	4	4	8
100 +	0	0	0
Total	218115	216170	434285

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	78260	74692	152952
18-44	101995	98907	200902
45-64	33530	34105	67635
65+	4330	8466	12796
Total	218115	216170	434285

8886
2429
6457
0
6457
64,77
70,30
2,105
8,37
27,43

Age	Males	Females	Total
0-4	22490	21450	43940
5-9	21731	20691	42422
10-14	20121	19144	39265
15-19	20337	19423	39760
20-24	25156	24064	49220
25-29	24023	23067	47090
30-34	20717	20094	40811
35-39	16974	16492	33466
40-44	14971	15089	30060
45-49	13548	13333	26881
50-54	12026	11982	24008
55-59	9256	9410	18666
60-64	6344	7145	13489
65-69	3229	4242	7471
70-74	1576	2666	4242
75-79	899	2027	2926
80-84	431	1239	1670
85-89	132	494	626
90-94	25	100	125
95-99	5	6	11
100 +	2	0	2
Total	233993	232158	466151

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	76209	72620	148829
18-44	110311	106894	217205
45-64	41174	41870	83044
65+	6299	10774	17073
Total	233993	232158	466151

Life births	8760
Deaths	2581
Natural increase	6179
Net migration	0
Total increase	6179
Life expectancy at birth - M	66,43
Life expectancy at birth - F	72,46
Total fertility rate	1,979
Ageing index	11,47
Mean age	29,08

Age	Males	Females	Total
0-4	21000	20037	41037
5-9	22379	21326	43705
10-14	21596	20541	42137
15-19	19989	18998	38987
20-24	20166	19266	39432
25-29	24909	23873	48782
30-34	23747	22866	46613
35-39	20430	19900	40330
40-44	16642	16298	32940
45-49	14522	14849	29371
50-54	12921	13039	25960
55-59	11192	11614	22806
60-64	8308	9000	17308
65-69	5390	6669	12059
70-74	2557	3805	6362
75-79	1131	2197	3328
80-84	550	1437	1987
85-89	205	664	869
90-94	44	165	209
95-99	6	13	19
100 +	2	0	2
Total	247686	246557	494243

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	77164	73487	150651
18-44	113694	109618	223312
45-64	46943	48502	95445
65+	9885	14950	24835
Total	247686	246557	494243

7919
2740
5179
0
5179
68,22
74,65
1,853
16,49
30,80

Age	Males	Females	Total
0-4	18512	17665	36177
5-9	20971	19997	40968
10-14	22323	21256	43579
15-19	21536	20465	42001
20-24	19895	18920	38815
25-29	20042	19185	39227
30-34	24716	23758	48474
35-39	23503	22733	46236
40-44	20106	19744	39850
45-49	16196	16100	32296
50-54	13905	14581	28486
55-59	12068	12687	24755
60-64	10081	11151	21232
65-69	7083	8432	15515
70-74	4270	5996	10266
75-79	1847	3153	5000
80-84	696	1567	2263
85-89	263	773	1036
90-94	67	217	284
95-99	9	24	33
100 +	2	0	2
Total	258091	258404	516495

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	74924	71387	146311
18-44	116680	112336	229016
45-64	52250	54519	106769
65+	14237	20162	34399
Total	258091	258404	516495

Life births	6924
Deaths	2923
Natural increase	4001
Net migration	0
Total increase	4001
Life expectancy at birth - M	70,07
Life expectancy at birth - F	77,08
Total fertility rate	1,728
Ageing index	23,51
Mean age	32,69

Appendix 3

Projection results

(high variant)

Age	Males	Females	Total
0-4	20816	19857	40673
5-9	20817	19939	40756
10-14	25805	24717	50522
15-19	24729	23707	48436
20-24	21385	20665	42050
25-29	17597	16989	34586
30-34	15650	15587	31237
35-39	14401	13865	28266
40-44	13138	12592	25730
45-49	10530	10040	20570
50-54	7670	7790	15460
55-59	4260	4802	9062
60-64	2370	3225	5595
65-69	1604	2788	4392
70-74	988	2149	3137
75-79	454	1292	1746
80-84	161	552	713
85-89	20	78	98
90-94	6	12	18
95-99	0	0	0
100 +	0	0	0
Total	202401	200646	403047

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	82400	78858	161258
18-44	91938	89060	180998
45-64	24830	25857	50687
65+	3233	6871	10104
Total	202401	200646	403047

Life births	8615
Deaths	2400
Natural increase	6215
Net migration	0
Total increase	6215
Life expectancy at birth - M	63,10
Life expectancy at birth - F	67,64
Total fertility rate	2,300
Ageing index	6,27
Mean age	25,61

Age	Males	Females	Total
0-4	23273	22197	45470
5-9	20507	19539	40046
10-14	20484	19588	40072
15-19	25382	24271	49653
20-24	24277	23273	47550
25-29	20964	20285	41249
30-34	17222	16663	33885
35-39	15281	15275	30556
40-44	13977	13561	27538
45-49	12614	12261	24875
50-54	9946	9717	19663
55-59	7070	7470	14540
60-64	3795	4547	8342
65-69	1994	2977	4971
70-74	1254	2468	3722
75-79	703	1753	2456
80-84	277	910	1187
85-89	77	297	374
90-94	10	29	39
95-99	4	4	8
100 +	0	0	0
Total	219111	217085	436196

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	79689	76066	155755
18-44	101678	98586	200264
45-64	33425	33995	67420
65+	4319	8438	12757
Total	219111	217085	436196

9641
2745
6896
0
6896
63,15
68,30
2,291
8,19
27,25

Age	Males	Females	Total
0-4	25115	23960	49075
5-9	22960	21879	44839
10-14	20211	19228	39439
15-19	20177	19268	39445
20-24	24959	23861	48820
25-29	23835	22884	46719
30-34	20551	19931	40482
35-39	16840	16356	33196
40-44	14859	14965	29824
45-49	13439	13226	26665
50-54	11928	11885	23813
55-59	9180	9335	18515
60-64	6296	7084	13380
65-69	3204	4210	7414
70-74	1561	2641	4202
75-79	893	2011	2904
80-84	427	1234	1661
85-89	132	489	621
90-94	25	98	123
95-99	5	6	11
100 +	2	0	2
Total	236599	234551	471150

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	80060	76311	156371
18-44	109447	106021	215468
45-64	40843	41530	82373
65+	6249	10689	16938
Total	236599	234551	471150

Life births	10012
Deaths	3116
Natural increase	6896
Net migration	0
Total increase	6896
Life expectancy at birth - M	63,75
Life expectancy at birth - F	69,24
Total fertility rate	2,281
Ageing index	10,83
Mean age	28,62

Age	Males	Females	Total
0-4	24703	23569	48272
5-9	24817	23654	48471
10-14	22663	21567	44230
15-19	19944	18947	38891
20-24	19868	18977	38845
25-29	24540	23500	48040
30-34	23400	22522	45922
35-39	20127	19599	39726
40-44	16393	16049	32442
45-49	14311	14621	28932
50-54	12725	12844	25569
55-59	11020	11440	22460
60-64	8185	8863	17048
65-69	5311	6564	11875
70-74	2519	3751	6270
75-79	1112	2160	3272
80-84	541	1414	1955
85-89	201	657	858
90-94	44	160	204
95-99	6	13	19
100 +	2	0	2
Total	252432	250871	503303

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	84442	80434	164876
18-44	112013	107950	219963
45-64	46241	47768	94009
65+	9736	14719	24455
Total	252432	250871	503303

Life births	9558
Deaths	3511
Natural increase	6047
Net migration	0
Total increase	6047
Life expectancy at birth - M	64,49
Life expectancy at birth - F	70,12
Total fertility rate	2,270
Ageing index	14,83
Mean age	29,99

Age	Males	Females	Total
0-4	23137	22076	45213
5-9	24445	23307	47752
10-14	24531	23356	47887
15-19	22397	21288	43685
20-24	19670	18692	38362
25-29	19567	18723	38290
30-34	24127	23165	47292
35-39	22951	22181	45132
40-44	19629	19265	38894
45-49	15812	15703	31515
50-54	13576	14225	27801
55-59	11777	12381	24158
60-64	9835	10881	20716
65-69	6917	8231	15148
70-74	4171	5845	10016
75-79	1803	3081	4884
80-84	677	1527	2204
85-89	256	754	1010
90-94	65	213	278
95-99	9	21	30
100 +	2	0	2
Total	265354	264915	530269

5-YEAR AGE GROUPS

MAIN AGE GROUPS

Age	Males	Females	Total
0-17	85900	81849	167749
18-44	114554	110204	224758
45-64	51000	53190	104190
65+	13900	19672	33572
Total	265354	264915	530269

8941
3944
4997
0
4997
65,09
71,09
2,260
20,01
31,45

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