
POPULATION DEVELOPMENT IN THE CZECH REPUBLIC IN 2005*)

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Abstract: The article describes and explains demographic development in the Czech Republic in 2005 in the context of recent demographic changes since 1990. The article analyses the development of natality, mortality, nuptiality, divorce, abortions and migration using absolute and relative numbers and an array of analytic demographic indicators. Among especially important topics are the decline of fertility below the “lowest-low fertility” level, the postponement of nuptiality and fertility to an older age, the sharp increase in extra-marital births, and the increasing importance of external migration. Unless otherwise stated, all data and calculations are based on databases of Czech Statistical Office, Demographic Statistics Section.

Keywords: population development, Czech Republic, lowest-low fertility, postponement, extra-marital births

There have been no serious fluctuations or surprises in the population development in the Czech Republic in recent years. The demographic situation can be described by low fertility and low nuptiality, a decrease in the population through natural population change, and a high divorce rate. In conformity with trends in recent years, the fertility rate is slowly rising, mortality conditions are also improving, the significance of external migration is increasing, and the number of abortions is decreasing.

The most striking phenomenon of 2005 was thus how much the number of immigrants exceeded the number of emigrants, creating a positive net migration of 36.2 thousand people. Conversely, the natural population change in the Czech Republic produced a decrease of 5.7 thousand people, when the number of deaths (107.9 thousand) exceeded the number of live births (102.2 thousand). Nonetheless, the number of births was the highest since 1994, and for the first time since 1994 it exceeded the hundred thousand mark. The inter-year increase in the number of live births by 4.5 thousand was reflected in an increase in total fertility to 1.28 children. The mean age of mothers also rose. Positive developments also continued to be recorded in the case of abortions. The total number of abortions fell, compared to 2004, by 1.3 thousand to a figure of forty thousand.

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There were 382 more marriages in 2005 than in 2004. The number continues to stagnate at levels around fifty thousand and the marriage rate remains low. The data from nuptiality tables indicate that if the current marriage rate were to be sustained 31% of women and 37% of men would still be single at the age of 50. The mean age at the time of the first marriage reached 30.7 years for men and 28.1 years for women. During 2005, 31.3 thousand marriages ended in divorce, which was 1772 fewer than in the previous year. In 2005 the indicator of the total divorce rate reached the level of 47.3% of the original numbers of marriages ending in

Table 1 Population movement, 1990–2000

Indicator	1990	1995	2000	2001	2002	2003	2004	2005
	Numbers							
Live births	130 564	96 097	90 910	90 715	92 786	93 685	97 664	102 211
Deaths	129 166	117 913	109 001	107 755	108 243	111 288	107 177	107 938
Infant deaths	1 410	740	373	360	385	365	366	347
Marriages	90 953	54 956	55 321	52 374	52 732	48 943	51 447	51 829
Divorces	32 055	31 135	29 704	31 586	31 758	32 824	33 060	31 288
Abortions total	126 055	61 590	47 370	45 057	43 743	42 304	41 324	40 023
– induced abortions	111 268	49 531	34 623	32 528	31 142	29 298	27 574	26 453
Immigrants	12 411	10 540	7 802	12 918	44 679	60 015	53 453	60 294
Emigrants	11 787	541	1 263	21 469	32 389	34 226	34 818	24 065
Natural increase	1 398	-21 816	-18 091	-17 040	-15 457	-17 603	-9 513	-5 727
Net migration	624	9 999	6 539	-8 551	12 290	25 789	18 635	36 229
Total increase	2 022	-11 817	-11 552	-25 591	-3 167	8 186	9 122	30 502
Population (1 st July), thous.	10 363	10 331	10 273	10 287	10 189	10 202	10 207	10 234
	Per 1000 population							
Live births	12.6	9.3	8.8	8.8	9.1	9.2	9.6	10.0
Deaths	12.5	11.4	10.6	10.5	10.6	10.9	10.5	10.5
Marriages	8.8	5.3	5.4	5.1	5.2	4.8	5.0	5.1
Divorces	3.1	3.0	2.9	3.1	3.1	3.2	3.2	3.1
Abortions total	12.2	6.0	4.6	4.4	4.3	4.1	4.0	3.9
– induced abortions	10.7	4.8	3.4	3.2	3.1	2.9	2.7	2.6
Immigrants	1.2	1.0	0.8	1.3	4.4	5.9	5.2	5.9
Emigrants	1.1	0.1	0.1	2.1	3.2	3.4	3.4	2.4
Natural increase	0.1	-2.1	-1.8	-1.7	-1.5	-1.7	-0.9	-0.6
Migration increase	0.1	1.0	0.6	-0.8	1.2	2.5	1.8	3.5
Total increase	0.2	-1.1	-1.1	-2.5	-0.3	0.8	0.9	3.0

Table 2 Basic intensity indicators of demographic development, 1990–2005

Indicator	1990	1995	2000	2001	2002	2003	2004	2005
Total female first marriage rate (per 100)	96.2	80.0	74.4	72.5	72.4	68.7	69.8	69.1
Mean age of women at first marriage	21.4	24.6	26.4	26.9	27.2	27.7	28.0	28.1
Total divorce rate (%)	38.0	38.5	41.3	44.6	45.7	47.9	49.3	47.3
Total fertility rate	1.89	1.28	1.14	1.15	1.17	1.18	1.23	1.28
Mean age of mother at birth of first child	22.5	23.3	24.9	25.3	25.6	25.9	26.3	26.6
Percentage of births out of wedlock	8.6	15.6	21.8	23.5	25.3	28.5	30.6	31.7
Net reproduction rate	0.91	0.61	0.55	0.55	0.56	0.57	0.59	0.62
Total abortion rate	1.77	0.84	0.63	0.60	0.58	0.56	0.55	0.53
Life expectancy at birth – men	67.6	69.7	71.6	72.1	72.1	72.0	72.5	72.9
Life expectancy at birth – women	75.4	76.6	78.3	78.4	78.5	78.5	79.0	79.1
Infant mortality rate (‰)	10.8	7.7	4.1	4.0	4.1	3.9	3.7	3.4

divorce. In 2005, 107.9 thousand people died, and the life expectancy at the time of birth reached 72.9 years of age for men and 79.1 for women.

The Composition of the Population by Age and Marital Status

The sharp fall in fertility to a level below 2.1 children per woman, which is the level that ensures the long-term numerical reproduction of the population, is reflected in the rapid decline in the number and percentage of children in the population of the Czech Republic. Between 1990 and 2005 the size of the population under the age of 15 decreased from 2.2 to 1.5 million and the percentage of children in the population decreased from 21.2% to 14.6%. As a result of this decrease the percentage of children in the total population came to balance the percentage of people over the age of 65, which has not yet begun to grow because thus far just the numerically small pre-war cohorts have reached this age. The current trends at the base and the peak of the age pyramid have thus resulted in a decrease in the economic burden of the population, but only temporarily. More pronounced effects of demographic ageing are expected in the years to come, when the large cohorts born during and just after the Second World War begin to reach the age of 65.

Table 3 Age distribution characteristics, 1990–2005

Indicator	1990	1995	2000	2001	2002	2003	2004	2005
	Number							
Total	10 364 124	10 321 344	10 266 546	10 206 436	10 203 269	10 211 455	10 220 577	10 251 079
0–14	2 193 682	1 893 259	1 664 434	1 621 862	1 589 766	1 554 475	1 526 946	1 501 331
15–64	6 867 991	7 055 805	7 179 109	7 170 017	7 195 541	7 233 788	7 259 001	7 293 357
65+	1 302 451	1 372 280	1 423 003	1 414 557	1 417 962	1 423 192	1 434 630	1 456 391
80+	258 954	277 109	249 767	260 302	277 204	292 753	308 332	321 532
	Percentage							
0–14	21.2	18.3	16.2	15.9	15.6	15.2	14.9	14.6
15–64	66.3	68.4	69.9	70.2	70.5	70.8	71.0	71.1
65+	12.6	13.3	13.9	13.9	13.9	13.9	14.0	14.2
80+	2.5	2.7	2.4	2.6	2.7	2.9	3.0	3.1
	Synthetic indicators							
Index of ageing ¹⁾	59.4	72.5	85.5	87.2	89.2	91.6	94.0	97.0
Total dependency ratio ²⁾	50.9	46.3	43.0	42.3	41.8	41.2	40.8	40.6
Mean age	36.3	37.3	38.8	39.0	39.3	39.5	39.8	40.0
Median age	35.3	36.4	37.6	37.9	38.2	38.5	38.7	38.9

Note: ¹⁾ The number of persons at age 65 and over per hundred persons aged 0–14.

²⁾ The number of persons at age 0–14 plus persons aged 65 or older per hundred persons aged 15 to 64.

Changes in nuptiality trends have been reflected in the population structure by age and marital status. The postponement of marriage or the rejection of marriage, replaced by consensual unions or by LAT (living apart together), has led to an increase in the number of young men and women that are still single at the age of 35. The percentage of married women of childbearing age, 15–49, thus fell to below half, and in the 20–24 age group there was a decline between 1990 and 2005 from 62.4% to 10.8%. Among men, the percentage of married men passed the one-half mark only after the age of 30, while in 1990 half of the male population was already married at age 23. The percentage of divorced men in the population over the age of 15 continues to increase; by 2005 it had reached 9.9%, compared to 6.4% in 1990. Among women there was an increase from 7.8 to 11.8%. The percentage of widowed people has long been considerably higher among women (around 15%) than among men (around 3%).

Table 4 Proportion of married women at given age in %; 1990–2005

Age	1990	1995	2000	2001	2002	2003	2004	2005
20–24	62.4	43.2	22.5	19.5	17.0	14.5	12.4	10.8
25–29	81.9	75.0	60.8	57.4	54.1	50.2	46.6	43.6
30–34	84.1	80.7	74.9	73.4	71.9	70.1	68.0	66.1
35–39	82.4	80.5	76.9	75.7	74.6	73.3	72.0	70.7
40–44	80.7	78.8	76.3	75.7	74.9	73.8	72.6	71.6
45–49	79.0	77.5	75.2	74.6	74.1	73.5	72.8	72.1
15–49	67.1	61.1	55.1	53.8	52.5	51.1	49.9	48.7

Nuptiality

The number of marriages has been stagnating in recent years at a rate of around 50 000 annually, despite the fact that the large cohorts born in the 1970s are now reaching marrying age. However, some of them seem to be rejecting marriage or at least postponing it until they are older. Between 1990 and 2005 the table indicator for the total female first marriage rate fell from 96.2% to 69.1%, indicating that, were the given marriage rate to continue, over 30% of women would remain single. Among men the figure would be 37% by the time of their fiftieth birthday. There was also a significant increase in the mean age at the time of the first marriage, from 21.4 to 28.1 years for women and from 24.0 to 30.7 years for men. In addition to the effect of this phenomenon on the population's age structure by marital status, another closely related phenomenon is the increase in the number and percentage of extra-marital births.

Table 5 Nuptiality table indicators, 1990–2005

Indicator	1990	1995	2000	2001	2002	2003	2004	2005
	Men							
Total male first marriage rate (per 100)	91.1	73.2	69.5	66.0	66.2	62.5	63.6	62.8
Table proportion of single men at age 50 (%)	8.9	26.8	30.5	34.0	33.8	37.5	36.4	37.2
Mean age at first marriage	24.0	26.7	28.8	29.2	29.7	30.2	30.5	30.7
Women								
Total female first marriage rate (per 100)	96.2	80.0	74.4	72.5	72.4	68.7	69.8	69.1
Table proportion of single women at age 50 (%)	3.8	20.0	25.6	27.5	27.6	31.3	30.2	30.9
Mean age at first marriage	21.4	24.6	26.4	26.9	27.2	27.7	28.0	28.1

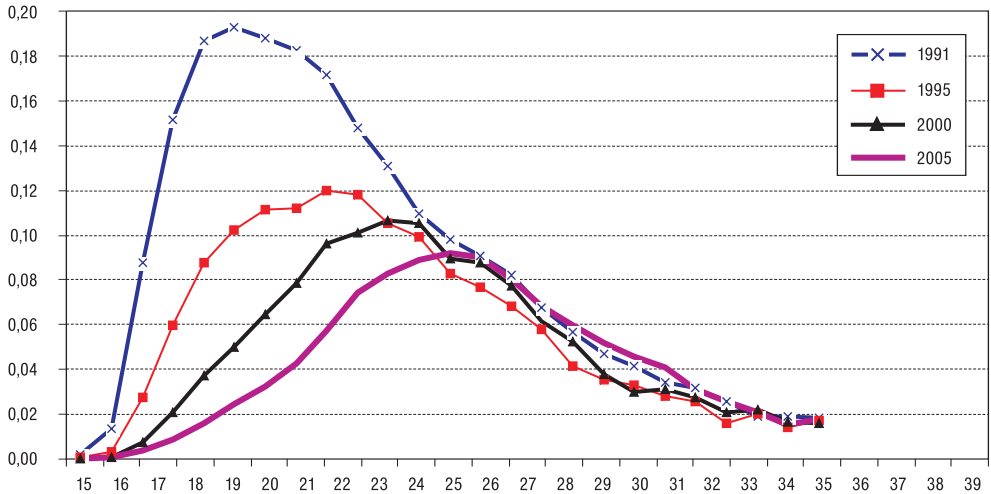
There has also been a slow decline in the percentage of protogamous marriages, in which both the bride and the groom are single. In 2005 there were 33 446 such marriages, that is, 65% of all marriages (at the start of the 1990s the figure was around 70%). Conversely, there was an increase in the percentage of repeated marriages, in which one or both spouses are divorced. Marriages where at least one of the spouses is widowed are relatively rare – in 2005 there were 1200.

The most common age difference between the bride and groom at the time of marriage is 0–3 years. There has been a gradual increase in the percentage of marriages in which the bride is older than the groom – in 2005 more than one-fifth of the cases. The mean age difference between partners is constant, despite the tendency to marry at a later age; in 2005 it was 3 years; 2.4 in the case of protogamous marriages.

Divorce

In 2005, 31.3 thousand marriages ended in divorce, which was 87.6% of the total number of applications for divorce submitted (35 698). The synthetic indicator of the total divorce rate in

Figure 1 Probability of getting married for single women by age, 1991–2005



2005 reached 47.3%, which suggests that were the current rate of divorce to be maintained almost one-half of the original number of marriages would end in divorce. The indicator fell compared to 2004 (49.3%), but compared to 1990 (38.0 %) the difference is still quite substantial. Besides the decline that was brought about by a change in legislation in 1999, there is no evidence of a reduction of the intensity of the divorce rate, which in the Czech Republic is one of the highest in Europe and in the world. However, this trend in divorce rates probably peaked in 2004, and the intensity of the process has stabilised since then.

It tends to be women who propose a divorce – in two-thirds of all cases. Over time the average duration of marriages that end in divorce has been increasing and reached 12.2 years in 2005, while the percentage of marriages that divorce just shortly after marrying has been

Table 6 Divorce rates by duration of marriage – per 100 initial marriages, 1990–2005

Duration of marriage (years)	1990	1995	2000	2001	2002	2003	2004	2005
0	0.75	0.37	0.00	0.28	0.31	0.38	0.37	0.36
1	2.69	1.89	2.33	2.10	2.05	2.17	2.16	1.93
2	3.38	2.97	2.88	2.89	2.74	2.83	2.81	2.63
3	3.16	3.46	3.21	3.12	3.12	3.13	3.02	2.84
4	2.83	3.05	3.00	2.97	3.04	3.02	3.00	2.87
5	2.50	2.61	2.66	2.82	3.02	2.97	3.06	2.95
6	2.14	2.34	2.44	2.75	2.62	2.83	2.87	2.63
7	2.00	2.09	2.29	2.50	2.48	2.63	2.60	2.50
8	1.66	1.86	2.14	2.38	2.27	2.24	2.50	2.29
9	1.53	1.69	1.98	2.07	2.16	2.10	2.30	2.07
10–14	1.22	1.30	1.49	1.68	1.74	1.83	1.89	1.79
15–19	0.88	0.87	0.96	1.10	1.18	1.27	1.33	1.33
20–24	0.58	0.60	0.65	0.74	0.77	0.87	0.91	0.89
25+	0.40	0.45	0.29	0.31	0.34	0.38	0.39	0.41
Total divorce rate	38.0	38.5	41.3	44.6	45.7	47.9	49.3	47.3
Mean duration of divorced marriages (years)	10.1	10.4	11.0	11.2	11.4	11.7	11.9	12.2

decreasing. This is owing to the decline in the marriage rate in recent years, resulting in an overall increase in the percentage of older marriages. Repeated divorces make up roughly one-fifth of all divorces. The percentage of divorces between partners with dependent children is decreasing; in 2005 they made up 61.4% of all divorces. In 2005, 28 732 children saw their parents' divorce; at present roughly ever third to fourth dependent child experiences parental divorce.

Nativity¹⁾

Since the first half of the 1990s the natality trend in the Czech Republic has been characterised by a decline in intensity among young women, the postponement of childbirth to a later age, a decrease in marital fertility and a simultaneous increase in extra-marital fertility.

Table 7 Fertility indicators, 1990–2005

Indicator	1990	1995	2000	2001	2002	2003	2004	2005
Total fertility rate	1.89	1.28	1.14	1.15	1.17	1.18	1.23	1.28
- first births	0.90	0.56	0.54	0.54	0.56	0.57	0.60	0.63
- second births	0.71	0.51	0.43	0.43	0.43	0.43	0.44	0.46
- in marriage	1.74	1.09	0.89	0.87	0.86	0.83	0.84	0.86
- outside marriage	0.16	0.19	0.25	0.28	0.31	0.35	0.39	0.42
Gross reproduction rate	0.92	0.62	0.55	0.56	0.57	0.57	0.60	0.62
Net reproduction rate	0.91	0.61	0.55	0.55	0.56	0.57	0.59	0.62
Percentage of births out of wedlock	8.6	15.6	21.8	23.5	25.3	28.5	30.6	31.7
Premarital conceptions (%)	54.4	50.8	41.6	39.5	37.6	33.6	32.2	31.7
Mean age of mothers	24.76	25.76	27.18	27.55	27.81	28.05	28.33	28.61
- at first birth	22.47	23.32	24.94	25.34	25.63	25.92	26.31	26.61
TFR (Bongaarts-Feeney)*	1.92	1.97	1.77	1.70	1.63	1.69	1.78	1.83
- first birth	0.87	0.90	0.86	0.82	0.78	0.86	0.92	0.92

Note: *) Total fertility rate adjusted for the impact of fertility postponement using the method of Bongaarts-Feeney (1998).

In 2005, for the first time in recent decades, over one hundred thousand children were born. This was mainly owing to the fact that the large cohorts born in the 1970s have begun to reach maximum fertility age. Nevertheless, the increase was not large enough for it to be notably reflected in relative and intensity indicators. The indicator of the total fertility rate reached 1.28 in 2005, which is still among the lowest values in the world. The number of children per woman (when current conditions remain the same) is still 0.6 lower than it was in 1990. However, fertility did not decline equally across the age spectrum. The decrease was most pronounced in the youngest age group of 20–22 year olds, where it was as high as four-fifths, while from the age of 27 and older in 2005 higher fertility rates were recorded than in 1990, and in the 35–39 age group the rate was double. At the same time there was an increase in the mean age of mothers by four years, to the age of 26.6 at the time of the first birth and to 28.6 overall.

The number of live births by marital status reveals that the marital fertility experienced a substantial decline between 1990 and 2005, by 40%. Conversely, extra-marital fertility grew, especially in the case of first-order births, where the number of live births for the cited period tripled. The total marital fertility rate fell from 1.7 children in 1990 to half that figure (0.86) in 2005. A total of 31.7% of children were born outside a marriage; the percentage was even higher in the case of first-order births (40%), among mothers with basic education (68%), and

¹⁾ In addition to the number of births in 2005 indicated here, thirteen children were also born as undisclosed births, in accordance with Act No. 20/1966 Coll., on the Care and Health of the Population, as amended in Act No. 422/2004 Coll.

Table 8 Fertility by age of women – rates per 1000, 1990–2005

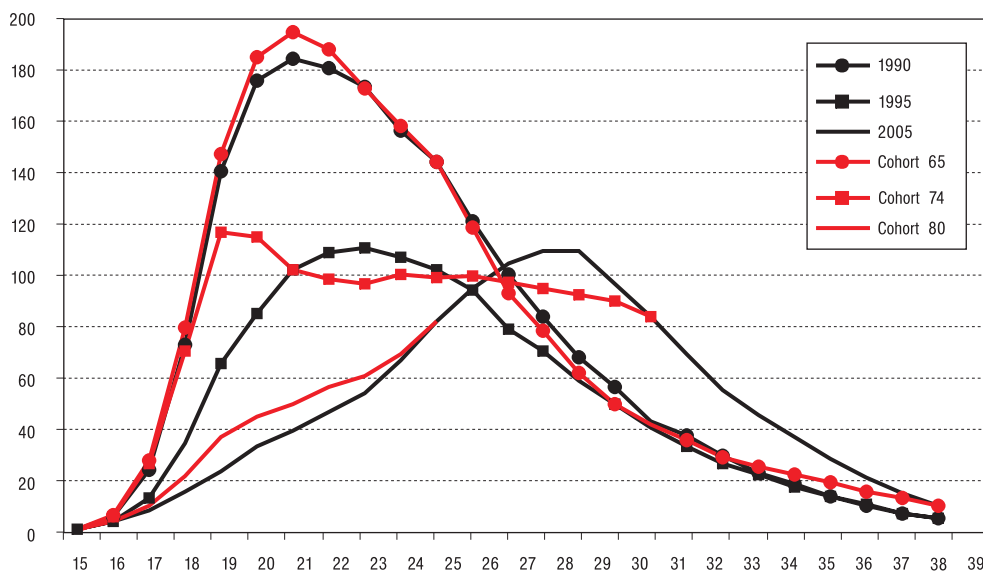
Age of women	1990	1995	2000	2001	2002	2003	2004	2005
20	176.0	85.3	44.9	39.6	36.9	35.5	34.6	33.4
21	184.9	102.3	53.5	49.4	45.8	42.5	41.4	39.8
22	181.1	109.4	65.0	57.8	56.6	50.1	48.3	47.1
23	173.6	110.7	79.9	69.9	65.8	61.2	56.2	54.5
24	156.6	107.4	91.3	82.2	80.2	74.3	69.6	66.8
25	144.3	102.5	98.2	94.7	91.4	84.6	84.7	82.4
26	121.4	94.6	100.2	98.5	99.3	97.6	96.1	95.4
27	100.4	79.5	91.4	96.5	98.5	100.0	102.6	104.9
28	83.9	70.8	84.3	88.1	95.1	97.2	105.3	109.6
29	68.0	59.0	74.0	77.4	83.6	92.4	98.0	109.7
30	56.9	49.9	61.7	67.9	74.6	81.7	90.1	96.8
31	43.6	40.6	52.4	58.3	61.4	65.6	75.8	84.3
32	38.0	33.3	40.8	45.0	50.0	55.3	59.7	69.3
33	30.1	26.8	32.7	37.1	40.5	42.9	49.1	55.5
34	23.4	22.8	27.0	29.2	33.9	35.8	39.9	45.9
35	19.2	17.5	22.7	23.2	27.0	28.4	32.1	37.2
36	14.0	13.8	17.5	19.3	21.1	22.2	26.1	28.8
37	10.4	10.8	13.1	14.6	16.0	15.8	18.9	21.4
38	7.6	7.2	10.3	9.9	11.7	13.2	14.3	15.5
39	5.6	5.5	7.1	8.4	9.3	9.7	10.5	10.6

Table 9 Fertility by age and family status of women per 1000, 1990–2005

Age of women	1990	1995	2000	2001	2002	2003	2004	2005
	Single							
20–24	24.9	22.4	21.7	22.1	23.6	25.2	26.7	27.3
25–29	30.1	31.4	30.9	33.3	34.4	38.1	41.1	43.7
30–34	24.8	26.2	31.6	37.2	39.3	45.0	50.8	54.7
35–39	10.5	9.9	16.5	19.0	19.6	21.2	24.8	29.0
40–44	1.6	2.2	2.7	3.7	4.1	5.8	5.4	5.8
Married								
20–24	263.5	194.5	209.6	206.0	210.0	202.7	199.9	207.1
25–29	120.6	95.3	123.7	130.1	138.2	143.0	154.4	167.1
30–34	39.8	37.0	46.7	52.3	58.2	63.0	71.8	81.8
35–39	11.3	10.5	14.0	14.7	16.6	16.7	19.3	21.8
40–44	1.6	1.5	2.0	2.4	2.6	2.8	3.1	3.2
Divorced and widowed								
20–24	58.6	61.4	73.5	66.9	75.9	75.1	92.5	87.2
25–29	40.5	46.1	51.3	51.7	55.1	61.8	66.0	70.1
30–34	25.1	28.5	31.9	35.0	38.1	42.3	45.2	48.7
35–39	11.2	11.5	15.7	16.1	17.0	19.6	21.9	23.5
40–44	2.0	2.4	2.5	2.7	3.3	3.9	4.2	4.6

in particular regions in the country (Most – 59%; compared to Uherské Hradiště – 18%). However, it is not clear what percentage of extra-marital births occurs among single women and what percentage occurs in unmarried cohabitation. In other words, what percentage of these children born to unmarried mothers are born into two-parent, functional families and what percentage are born to single women, which is a negative social phenomenon and a potential social issue. Demographic statistics for the Czech Republic only record data on the

Figure 2 Age-specific fertility rates by year or by birth cohort, per 1000



father when the mother is married. Unlike in some other European countries, there are no official data available on the fathers of extra-marital children, and in this regard it is necessary instead to draw on data from the 2001 Census, combined with data from representative sociological surveys. The data from the 2001 Census show what percentage of single mothers aged 18–34 were indicated as cohabiting. This percentage increases with the number of children, from 20% with one child, 40% with two children, to one-half of all unmarried mothers with three children (Šalamounová – Nývlt, 2006). Similar values were recorded in the **Fertility and Family Survey in 1997** (FFS, 1997). Therefore, it is likely that with the increase in extra-marital fertility, the number and percentage of cohabiting mothers will also increase, and thus the percentage of single mothers out of extra-marital fertility is falling, while the percentage of cohabiting mothers is rising to one-quarter or even one-half of extra-marital fertility, depending on the number of children, the education of the mother, and the particular region.

The previously high percentage of pre-marital conceptions, when almost one-half of all women married when they were already pregnant, has been slowly decreasing since the mid-1990s, as quality contraceptives have limited the number of unwanted pregnancies, and as some couples have a child while unmarried or marry after the child is born. All this is connected with the overall change in the social climate, where extra-marital pregnancy is no longer looked on with the kind of animosity with which it was regarded before, and where even unmarried cohabitation with children is coming to be regarded as socially acceptable. In recent years the percentage of pre-nuptial conceptions in the case of the first-order child born in a marriage fell to one-third, in 2005 it was 31.7%. The average interval between marriage and the birth of the first child has increased since 1990 from 1.1 years to the current 2.1 years. The average age of mothers who are married when they gave birth to a child was 29.4 years in 2005, while the average age of married fathers was 32.6 years, five years older than in 1990. The difference in the ages of the mother and father, which is 3.2 years, is comparable to the age difference between brides and grooms.

Between 1990 and 2005 there was a significant increase in the interval between the birth of the first and second child, from 3.7 to 5.1 years. In connection with the socio-economic changes

Table 10 Live births by order and family status of mother, 1990–2005

Live births by order	1990	1995	2000	2001	2002	2003	2004	2005
	Live births inside marriage							
1.	55 580	35 877	32 209	30 873	30 919	29 282	29 615	29 962
2.	46 423	33 606	29 127	29 026	28 621	28 262	28 672	30 079
3.+	17 394	11 667	9 782	9 540	9 787	9 428	9 538	9 761
Total	119 397	81 150	71 118	69 439	69 327	66 972	67 825	69 802
Per cent								
1.	46.6	44.2	45.3	44.5	44.6	43.7	43.7	42.9
2.	38.9	41.4	41.0	41.8	41.3	42.2	42.3	43.1
3.+	14.6	14.4	13.8	13.7	14.1	14.1	14.1	14.0
Live births outside marriage								
1.	6 794	8 645	11 695	12 464	13 826	16 081	18 451	19 968
2.	2 123	3 420	4 746	5 190	5 826	6 561	6 997	7 914
3.+	2 250	2 882	3 351	3 622	3 807	4 071	4 391	4 527
Total	11 167	14 947	19 792	21 276	23 459	26 713	29 839	32 409
Per cent								
1.	60.8	57.8	59.1	58.6	58.9	60.2	61.8	61.6
2.	19.0	22.9	24.0	24.4	24.8	24.6	23.4	24.4
3.+	20.1	19.3	16.9	17.0	16.2	15.2	14.7	14.0
Share of children born outside marriage %								
1.	10.9	19.4	26.6	28.8	30.9	35.4	38.4	40.0
2.	4.4	9.2	14.0	15.2	16.9	18.8	19.6	20.8
3.+	11.5	19.8	25.5	27.5	28.0	30.2	31.5	31.7
Of all children, total	8.6	15.6	21.8	23.5	25.3	28.5	30.6	31.7

of the past fifteen years, society has been losing its pro-family orientation, and the former two-child model, wherein a woman had her first child shortly after marrying and the second child followed within four years, has been partly abandoned. The question remains as to whether women will generally begin to have just one child, or whether they will divide into two groups – women who remain childless, and women who adhere to the two-child fertility model but do so at a later age. This also depends on the extent to which women are able to manage to have two children “in time” at a later age. Cohort measures indicate that while women born in 1940 and 1950 already had two children by the age of 35, women in the 1970 cohort thus far have only 1.7. Women born in 1975 have on average 1.1 children at age 30, while women born in 1950 had 1.85 at that age. However, completed fertility and permanent childlessness among the younger generations will only be evident from developments in the coming years, which are very difficult to estimate.

The decline in fertility in the Czech Republic since 1990 is not a general phenomenon and it does not represent a demographic crisis. The most serious negative effect of the trend is its deformation of the age structure. More detailed analyses reveal that a decline was recorded mainly among younger women, among whom fertility intensity had previously been very high, while fertility among older women is increasing, though not enough to compensate for the decline among young women. At the same time, fertility is increasing among younger age groups of unmarried women. The biggest decrease in fertility was among married women, and this effect was reinforced by a rapid decrease in the marriage rate and thus also in the proportion of married women. The decrease in fertility among younger women was not immediately offset by a rise in fertility among older women, as the latter had already had their children. The several-year gap, when older women were no longer having children while

Table 11 Accumulated fertility rates by age and birth cohort of women

Age	1940	1950	1960	1970	1975	1980
25	1.22	1.22	1.10	1.01	0.59	0.34
30	1.74	1.85	1.59	1.43	1.09	
35	1.98	2.07	1.78	1.69		
40	2.06	2.13	1.84			
45	2.07	2.14	1.85			

younger women were postponing childbirth, features a sharp decline in total fertility below the value of the “lowest-low fertility” level of 1.3. Given such pronounced changes in the timing of births, the measure of total fertility rate is distorted and undervalued. If we use the method proposed by *Bongaarts and Feeney* (1998) to adjust the indicator for the effect of the postponement of childbearing to a later age, the average number of children per woman in 2000 has a value of 1.6–1.8 and lifetime childlessness from a transversal perspective is around 10–20%. The average number of children per woman calculated with the aid of fertility tables for this period is 1.3–1.4, with lifetime childlessness at a level of 20–25% (for more on various ways of calculating aggregate fertility measures see *Sobotka*, 2003).

In the years to come we may expect a more rapid increase in the total fertility rate, as women who postponed childbearing begin to have children at a much later age, even after the age of 30. Even in 2005, 21% of first-order children and 38% of all children were born to mothers over the age of 30. The probability that a thirty-year-old childless woman will have a child before the end of her reproductive period is currently around 50%.

Abortion

Over the past fifteen years the abortion rate has been falling substantially. Between 1990 and 2005 the total induced abortion rate fell from 1.5 to 0.35, and the number of abortions, which at the end of the 1980s was comparable to the number of children born (around 120 000), decreased to one-third of its former level. In 2005 a total of forty thousand abortions were recorded, of which two-thirds were induced abortions – 26 453.

There were 12 245 spontaneous abortions recorded, 1324 terminated ectopic pregnancies, and one case in the category of “other abortions”. Abortions among foreign nationals with residence status make up 5.6% of the total. A full 78% of induced abortions (20 519) were so-called mini-abortions or vacuum aspiration, performed up to the eighth week of pregnancy (to the seventh week in first-time pregnancies). The percentage of repeated treatment declined; 58% were first abortions, but 17% of women had a third or higher-order abortion. A total of 4678 abortions were therapeutic, and there was no fee for performing these procedures, which in non-therapeutic cases now costs about 3000 CZK. Conversely, the number of spontaneous abortions has in recent years stagnated – on the one hand the reproductive health of women is

Table 12 Abortion rates, 1990–2005

Indicator	1990	1995	2000	2001	2002	2003	2004	2005
	Total rate							
Spontaneous abortion rate	0.21	0.14	0.15	0.14	0.15	0.15	0.16	0.16
Induced abortion rate	1.51	0.68	0.47	0.44	0.42	0.39	0.37	0.35
Total abortion rate	1.75	0.84	0.63	0.60	0.58	0.56	0.55	0.53
	Mean age of women at abortion							
Spontaneous abortion	26.4	27.6	28.9	29.1	29.2	29.7	29.9	30.0
Induced abortion	28.7	29.3	29.8	29.7	29.7	29.7	29.8	29.6
Total abortion	28.4	29.0	29.6	29.6	29.6	29.7	29.8	29.8

Table 13 Life expectancy, 1990–2005

Age	1990	1995	2000	2001	2002	2003	2004	2005
	Men							
0	67.6	69.7	71.6	72.1	72.1	72.0	72.5	72.9
45	25.8	27.6	28.9	29.3	29.3	29.2	29.6	29.9
65	11.6	12.7	13.7	13.9	13.9	13.8	14.2	14.4
80	5.1	5.7	6.1	6.2	6.0	5.9	6.1	6.1
Women								
0	75.4	76.6	78.3	78.4	78.5	78.5	79.0	79.1
45	32.3	33.3	34.6	34.6	34.8	34.7	35.2	35.2
65	15.2	16.0	17.1	17.1	17.2	17.1	17.5	17.6
80	6.1	6.6	7.1	7.0	6.9	6.9	7.1	7.1
Difference women-men (at birth)	7.8	6.9	6.7	6.3	6.5	6.5	6.5	6.2

improving, but on the other hand women are postponing pregnancy to a later age, when pregnancy is accompanied by higher risks.

The introduction of a fee for induced abortions may have contributed to the decrease in the abortion rate in the Czech Republic, but the main reason has been the rapid spread of information about reproductive health, sexuality, planned parenthood, and prevention against sexually transmitted diseases, and especially better access to modern contraceptives since 1990. The proportion of women aged 15–49 that use prescription hormonal contraceptives increased between 1990 and 2004 by almost tenfold, from 4% to 44% (ÚZIS, 2005a). Another 7% use an intrauterine device. A change has also occurred in the structure of women undergoing induced abortions. While at the end of the 1980s induced abortion was most common among married women after the birth of a second child, for whom it represented a kind of “ex-post contraceptive”, during the 1990s the induced abortion rate among married women fell by 85% and the rates of married and unmarried women evened out. At present primarily two groups of women undergo abortions. The first group is comprised of women with two children, usually married or divorced. The second group is made up of young, single women, who undergo abortions when their contraception fails or an unplanned pregnancy occurs. According to analyses of the distribution of induced abortions by the number of live-born children the women have, the first group of women with two children still leads numerically, accounting for 35% of all induced abortions; childless women account for 27%. In this connection it is necessary to mention the possibility of sterilisation (tubal ligation), which in the Czech Republic, unlike in other countries in Western Europe and the United States, is not very common. The number of sterilisation procedures and sterilised women has increased since the mid-1990s, but there are only around four thousand such procedures performed annually (ÚZIS, 2005b). According to regulations still in effect from 1972, a woman can be sterilised only if she has at least three living children (among women under the age of 35 four children). In the Czech Republic, many women would probably opt for sterilisation after having their second child.

Mortality

In 2005, 107 938 people died, i.e. 761 more than in 2004. The number of infant deaths was 347, of which 206 died within 28 days of their birth. The infant mortality rate has thus decreased to 3.4 deceased infants per one thousand live-born children, the neo-natal mortality rate to 2.0 deceased within 28 days of birth per one thousand live-born children. Life expectancy at birth increased for men by one-third from previous levels to reach 72.9 years; for women life expectancy has remained almost the same and is now 79.1 years.

Table 14 Standardised mortality rates by main groups of causes of death per 100 000, 1990–2005

Causes of death	1990	1995	2000	2001	2002	2003	2004	2005
	Men							
Neoplasms	361.1	345.1	326.7	317.5	323.3	321.1	315.2	296.8
Diseases of the circulatory system	834.1	708.1	576.9	567.6	560.6	568.5	530.9	508.1
Diseases of the respiratory system	81.3	62.5	56.9	55.6	55.6	59.7	55.4	65.9
Diseases of the digestive system	67.6	53.6	48.5	50.7	50.3	50.8	50.4	52.4
Injury and poisoning	117.4	106.2	93.0	90.4	91.4	96.3	89.0	82.8
Other causes	103.7	60.0	59.6	61.7	65.1	68.5	65.7	70.7
Total	1565.3	1335.6	1161.6	1143.6	1146.3	1164.9	1106.6	1076.7
Women								
Neoplasms	191.6	191.4	178.7	179.3	175.3	177.5	173.0	166.2
Diseases of the circulatory system	512.5	455.0	379.0	381.7	379.5	384.4	356.9	351.1
Diseases of the respiratory system	29.7	31.6	29.1	26.6	27.2	30.9	25.5	33.5
Diseases of the digestive system	29.7	26.3	25.4	25.8	26.0	27.5	25.7	26.8
Injury and poisoning	54.1	47.9	34.2	33.8	32.8	35.4	34.0	29.3
Other causes	70.7	46.8	44.2	44.9	45.1	48.0	46.7	50.3
Total	888.3	798.9	690.5	692.2	685.9	703.6	661.9	657.2

In comparison with 1990, however, the improvement of mortality conditions has led to the extension of life expectancy by 5.3 years for men and 3.7 years for women, with the difference between the sexes thus decreasing from 7.8 to the current 6.2 years. One major reason for this is the improvement of neo-natal health care, and the reduction of infant mortality by more than two thirds, from 10.8 to 3.4%. Another reason, at the other end of the age spectrum, is that mortality conditions among the elderly have improved, especially in the 55–80 age group for men and 65–80 age group for women. Conversely, mortality intensity among young people has stagnated throughout the observed period.

From the perspective of cause of death, absolutely the biggest source of the increase in life expectancy between 1990 and 2005 is the improvement in the death rate caused by disease of the cardiovascular system and partly also improved diagnostics and treatment for malignant neoplasms. However, these two causes of death are still responsible for three-quarters of all deaths. Deaths caused by injury or poisoning are also declining. On the other hand, a slight increase can be seen among deaths caused by disease of the respiratory system, most likely because of the flu epidemic in the month of February.

Internal Migration

Last year a total of 213 688 changes of permanent address²⁾ were recorded in the Czech Republic, of which 96 605 occurred between municipalities within the same NUTS 4 district, 41 414 between districts within the same region, and 75 669 between NUTS 3 regions. However, these figures do not encompass real migration that occurs without registration at a registration office, and in this regard the figures are undervalued. In a comparison of districts it is possible to trace a particularly strong migration flow from rural areas to cities and from cities to city outskirts. For example, 15.3 thousand people moved to Prague, 17.7 thousand moved out of Prague, but of the latter 6.7 thousand only moved to the suburban districts of Prague-East and Prague-West. In 2005 these two districts were among those with the largest population increases, along with Kolín and Brno-Suburbs, while the biggest decreases were recorded in the cities and districts in the Region of Moravia-Silesia and the Karlovy Vary Region.

²⁾ In the case of foreign nationals, these are women with temporary or permanent residence permits.

Table 15 International migration and number of foreigners by citizenship, 2005*

Citizenship	Net migration	Immigrants	Emigrants	Number of foreigners (31. 12. 2005)*			
				Total	Permanent residence	Temporary residence	Temporary residence (%)
Ukraine	12 483	23 875	11 392	87 789	15 334	72 455	82.5
Slovakia	8 161	10 107	1 946	49 446	20 227	29 219	59.1
Vietnam	3 489	4 906	1 417	36 833	23 235	13 598	36.9
Russia	1 994	3 300	1 306	16 273	6 012	10 261	63.1
Poland	1 119	1 259	140	17 810	11 384	6 426	36.1
Germany	1 332	1 431	99	7 187	3 957	3 230	44.9
Bulgaria	392	846	454	4 551	2 337	2 214	48.6
Moldova	891	1 672	781	4 674	678	3 996	85.5
United States	628	1 374	746	3 952	2 051	1 901	48.1
China	426	833	407	3 580	1 471	2 109	58.9
Serbia and Montenegro	137	215	78	3 559	2 306	1 253	35.2
Czech Republic**	-551	1 718	2 269	x	x	x	x
Total	36 229	60 294	24 065	278 312	110 598	167 714	60.3

Note: *) The data from the Foreign and Border Police.

** The data from Central Population Register Record of the Ministry of the Interior.

External Migration

The highest positive net migration since the founding of the Czech Republic in 1993, at 36.2 thousand people, was caused by a higher number of immigrants (60.3 thousand) over emigrants (24.1 thousand). However, it must be stressed that while the number of emigrating Czech citizens officially registered in 2005 was 2269, this figure is understated and does not include those emigrants who did not terminate their permanent residency in the Czech Republic.

The most active countries in both directions of migration are Ukraine, from where 24.0 thousand people immigrated to the Czech Republic and where during the year 11.4 thousand people emigrated. The next highest migration flows are with Slovakia, Vietnam, and the Russian Federation.

The largest number of foreign nationals with residence permits in the Czech Republic are Ukrainians, followed by Slovaks, Vietnamese, Poles, and Russians. The total number of foreign nationals legally residing in the Czech Republic as of 31 December 2005 according to the data of the Foreign and Border Police of the Ministry of the Interior of the Czech Republic was 278.3 thousand, or 2.7% of the population of the Czech Republic.

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- Unless otherwise indicated, all data and calculations are based on the databases of the Czech Statistical Office, Department of Demographic Statistics.

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